

# NEWSLETTER

International Regulatory Developments

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## EUROPE

### Air Quality Ministerial Summit

On 30 January 2018, European Commissioner for Environment, Mr Karmenu Vella, chaired an Air Quality Ministerial Summit in Brussels, to which he had invited the Ministers of the Czech Republic, Germany, Spain, France, Italy, Hungary, Romania, Slovakia and the UK.

These countries face infringement procedures for exceeding EU air pollution limits and they were asked to prove that additional adequate steps will be taken to redress the current situation without delay and comply with European law.



According to the Commissioner Vella, Ministers expressed an understanding that to be credible, effective action must be taken to protect citizens from air pollution. It means respecting the process that ensures air quality. However, the deadlines for meeting the legal obligations have long elapsed.

As much as protecting our citizens is a key priority for the European Commission, in Member States this needs to become a key priority of the entire governments including all Ministers, be it Ministers for transport, energy, industry, agriculture or finance.

There were some positive suggestions, Commissioner Vella said but at first sight these were not substantial enough to change the big picture. Without new and effective measures, in many cases, air quality standards will further continue to be exceeded for months and years, even well beyond 2020. In the face of such longstanding failures to take serious action, and in view that the ongoing legal process will continue, Commissioner Vella urged all Member States to address this life-threatening problem with the urgency it deserves.

He added that "inaction has consequences. It has consequences for citizens and the polluted air they breathe. Member States have responsibilities. Responsibilities to act. Inaction also has legal consequences for the Member States in question. Ministers were reminded of both these responsibilities as well as the legal consequences."

Commissioner Vella's statement is at

[http://europa.eu/rapid/press-release\\_STATEMENT-18-508\\_en.htm](http://europa.eu/rapid/press-release_STATEMENT-18-508_en.htm).

### MEP written Question on Euro 6d-TEMP Type-Approvals

On 12 January 2018, the European Commissioner for industry Ms Elżbieta Bieńkowska replied to a written question asked by MEP Sven Schulze (Germany, EPP) on the certification of vehicles under the Euro 6d-TEMP emissions standard.

The Commissioner replied that Type-Approval Authorities of the Member States have been enquired about certifications of vehicles under Real-Driving Emissions (RDE) tests. To date information from thirteen Type-Approval Authorities was received.

In the first two months of the application of the new RDE with the Not-To-Exceed (NTE) limits, i.e. from 1 September 2017 until 31 October 2017, seven new emission type approvals were granted.

Furthermore, one of these manufacturers declared in the Certificate of Conformity a maximum RDE value of only 1.5, well below 2.1.

At this time, the Commission has no further information from manufacturers regarding which new vehicle types are expected to be certified on the basis of the RDE procedure.

The written question and answer are at

[www.europarl.europa.eu/sides/getDoc.do?type=WQ&reference=E-2017-005983&format=XML&language=EN](http://www.europarl.europa.eu/sides/getDoc.do?type=WQ&reference=E-2017-005983&format=XML&language=EN).

### VECTO Calculation Tool for Heavy-Duty Vehicles CO<sub>2</sub> Emission published

On 29 December 2017, Commission Regulation (EU) 2017/2400 was published in the Official Journal that establishes the determination of CO<sub>2</sub> emissions and fuel consumption of heavy-duty vehicles.

This Regulation complements the legal framework for the type-approval of heavy-duty vehicles established by Regulation (EU) 582/2011, the Euro VI implementing act, by laying down the rules for operating the Vehicle Energy Consumption calculation Tool (VECTO) simulation tool which determines CO<sub>2</sub> emissions and fuel consumption of new heavy-duty vehicles.

VECTO has been developed by the European Commission. The Commission shall maintain the electronic tools and provide modifications and updates to those tools.

In order to reflect the diversity of the sector, heavy-duty vehicles are divided into groups of vehicles with a similar axle configuration, chassis configuration and technically permissible maximum laden mass. Those parameters define the purpose of a vehicle and therefore determine the set of test cycles used for the purpose of the simulation. The regulation applies to N2 vehicles above 7.5 tonnes and all N3 vehicles.

The CO<sub>2</sub> emission and fuel consumption calculation will apply to heavy-duty vehicles in the groups 4, 5, 9 and 10 as from 1 July 2019. Simulation for other vehicle groups may be developed at a later stage.

Vehicle groups for vehicles of category N											
Description of elements relevant to the classification in vehicle groups			Vehicle group	Allocation of mission profile and vehicle configuration							Standard body allocation
Axle configuration	Chassis configuration	Technically permissible maximum laden mass (ton)		Long haul	Long haul (EMS)	Regional delivery	Regional delivery (EMS)	Urban delivery	Municipal utility	Construction	
4 × 2	Rigid	> 3,5 - < 7,5	(0)								
	Rigid (or tractor) (**)	7,5 - 10	1			R		R			B1
	Rigid (or tractor) (**)	> 10 - 12	2	R + T1		R		R			B2
	Rigid (or tractor) (**)	> 12 - 16	3			R		R			B3
	Rigid	> 16	4	R + T2					R		B4
	Tractor	> 16	5	T + ST	T + ST + T2	T + ST	T + ST + T2				
4 × 4	Rigid	7,5 - 16	(6)								
	Rigid	> 16	(7)								
	Tractor	> 16	(8)								
6 × 2	Rigid	all weights	9	R + T2	R + D + ST	R	R + D + ST		R		B5
	Tractor	all weights	10	T + ST	T + ST + T2	T + ST	T + ST + T2				
6 × 4	Rigid	all weights	11	R + T2	R + D + ST	R	R + D + ST		R	R	B5
	Tractor	all weights	12	T + ST	T + ST + T2	T + ST	T + ST + T2			R	
6 × 6	Rigid	all weights	(13)								
	Tractor	all weights	(14)								
8 × 2	Rigid	all weights	(15)								
8 × 4	Rigid	all weights	16						R		(generic weight + C <sub>02A</sub> )
8 × 6 8 × 8	Rigid	all weights	(17)								

(\*) EMG - European Modular System  
(\*\*) In these vehicle classes tractors are treated as rigid but with specific curb weight of tractor  
T = Tractor  
R = Rigid fit standard body  
T1, T2 = Standard trailers  
ST = Standard semitrailer  
D = Standard dolly

Commission Regulation (EU) 2017/2400 is at [http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L\\_.2017.349.01.0001.01.ENG&toc=OJ.L:2017:349:TOC](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2017.349.01.0001.01.ENG&toc=OJ.L:2017:349:TOC).

## Parliamentary Report on Heavy-Duty CO<sub>2</sub> Monitoring and Reporting

On 24 January 2018, the Environment (ENVI) Committee of the European Parliament adopted its report on monitoring and reporting of CO<sub>2</sub> emissions and fuel consumption of heavy-duty vehicles (HDVs).

The ENVI report prepared by Rapporteur MEP Zoffoli (S&D, Italy) was adopted together with 12 compromise amendments. It calls on the Commission to prepare a schedule for the application of the VECTO software to the HDVs not yet covered, including all buses and coaches, some types of lorries and trailers, electric and hybrid HDVs and those using alternative fuels that will be available on the market.

The Commission is also mandated to come forward, by 30 April 2018, with a legislative proposal on standards for CO<sub>2</sub>

emissions from heavy-duty vehicles for 2025 in line with the European Union's climate goal.

The report was adopted by 36 MEPs in favour, 24 against and 3 abstaining. It will now be put to a vote in the Parliament's plenary in the coming weeks.

Once the European Parliament has approved its position on the proposal, informal negotiations with the Council (trilogues) can then begin, with the aim to reach a first reading agreement on the proposal.

The ENVI report is at [www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A8-2018-0010+0+DOC+PDF+V0//EN](http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML+REPORT+A8-2018-0010+0+DOC+PDF+V0//EN).

## Public Consultation on Amendment to Non-Road Stage V Implementing Act

On 30 January 2018, a public consultation was launched on a draft amendment to the Non-Road Mobile Machinery (NRMM) Stage V implementing Regulation (EU) 2017/656.

Amendments to the Stage V Regulation on Administrative Requirements (RAR) include correction to some NRMM engine type-approval document templates and correction of minor errors of different types to remove contradictions.

Also, the reference work (kWh) and the reference CO<sub>2</sub> mass (g) for the procedures for the calculation of gaseous pollutant emissions for in-service monitoring are inserted in the type-approval certificate.

The consultation is open until 27 February 2018 and is at [http://ec.europa.eu/info/law/better-regulation/initiatives/ares-2018-541286\\_en](http://ec.europa.eu/info/law/better-regulation/initiatives/ares-2018-541286_en).

## Parliament Committee vote on Type-Approval Framework Agreement

On 23 January 2018, the Internal Market and Consumer Protection committee (IMCO) voted on the provisional trilogue agreement on the revision of the vehicle type-approval framework.

The agreement which was reached at the end of last year (see AECC Newsletter of December 2017) was adopted by 25 MEPs in favour, 3 against and there was no abstention.

During a brief discussion in the IMCO committee the day before, Rapporteur MEP Dalton (UK, ECR) thanked all for the good cooperation. He felt that MEPs could be satisfied with the compromise as Council had to move substantially. The new, strengthened type-approval system will avoid that a new 'dieselgate' can happen, he said. Shadow rapporteurs also commented on the positive outcome.

A vote in plenary will be scheduled in the next weeks.

## Commission Call for Tender on Study of Life Cycle Assessment of Vehicles

On 22 December 2017, the European Commission's Directorate General for Climate Action (DG-CLIMA) released a call for tender for a pilot project on determining

the environmental impacts of conventional and alternatively fuelled vehicles through Life Cycle Assessment (LCA).

The aim of the study is to compare the life cycle greenhouse gas emissions and key impact on the environment and human health of light-duty vehicles (passenger cars and vans) and heavy-duty vehicles (trucks, buses and coaches) that are powered by different types of powertrains (internal combustion engines and electric motors) and that use different types of fuel or transport energy. The study will cover fossil fuels (petrol, diesel, LNG, natural gas), biofuels and other alternative fuels, as well as electricity. The impact will be assessed over the entire life cycle of the vehicle, including the production, the use phase, and the end-of-life/recycling, and it will take into account fuel and energy production and consumption. It covers the time period 2020-2050.

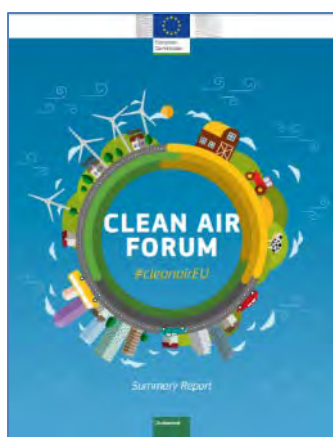
The tender is for an 18-month project with €500 000 available funding. Tenders can be submitted until 19 February 2018.

The DG-CLIMA tender is at <http://ted.europa.eu/udl?uri=TED:NOTICE:513671-2017:HTML:EN:HTML&tabId=1&tabLang=en>.

## Summary Report of EU Clean Air Forum

On 17 January 2018, the European Commission released its summary of the EU Clean Air Forum that was held in the Paris City Hall on 16 and 17 November 2017.

Over 300 participants from government, industry, and non-governmental organizations as well as citizens shared their views at the first EU Clean Air Forum. Discussions focused on three themes: air quality in cities; air pollution from the agricultural sector; and clean air business opportunities.



More than 30 high-level speakers reflected on the clean air challenge, on areas for action, the actors involved and on how policies can be crafted to deliver benefits on multiple fronts.

This synthesis report offers a summary of the presentations and debates that took place over those two days. The second Clean Air Forum will take place in 2019.

The summary report of the EU Clean Air Forum is at <https://euconf.eu/clean-air/assets/report/clean-air-forum-report-web-20180110.pdf>.

## Parliament Appraisal of Post-2020 CO<sub>2</sub> Proposal for Cars and Vans

On 31 January 2018, the European Parliament published an initial appraisal of the impact assessment conducted by

the European Commission when proposing post-2020 CO<sub>2</sub> standards for cars and vans.

The impact assessment draws on broad internal and external expertise and provides a lot of quantitative information. While the analysis is logical overall and underpinned by sound research, some parts lack transparency and accessibility, in particular for non-specialists. The definition of the problems and objectives could have been more precise, but generally, the options and their comparison appear to be pertinent and evidence-based. Some of the preferred options are defined in relative terms, as the absolute values of the CO<sub>2</sub> emission reductions will only be determined in 2022.

The impact assessment could have addressed the relevance of external factors, such as test procedures, consumer behaviour or third countries, more in-depth, as well as impacts on public health, which are not assessed. These factors influence the effectiveness of standards for cars and vans considerably, as do other legislative initiatives aimed at reducing transport CO<sub>2</sub> emissions.

The European Parliament appraisal is at [www.europarl.europa.eu/RegData/etudes/BRIE/2018/615640/EPRS\\_BRI\(2018\)615640\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/615640/EPRS_BRI(2018)615640_EN.pdf).

## EEA Report on New Cars and Vans CO<sub>2</sub> Emissions in 2016

On 18 January 2018, the European Environment Agency (EEA) published a report titled "Monitoring CO<sub>2</sub> emissions from passenger cars and vans in 2016" which gives an updated summary of CO<sub>2</sub> emission levels of new passenger cars and vans in the EU in 2016, based on laboratory measurements.

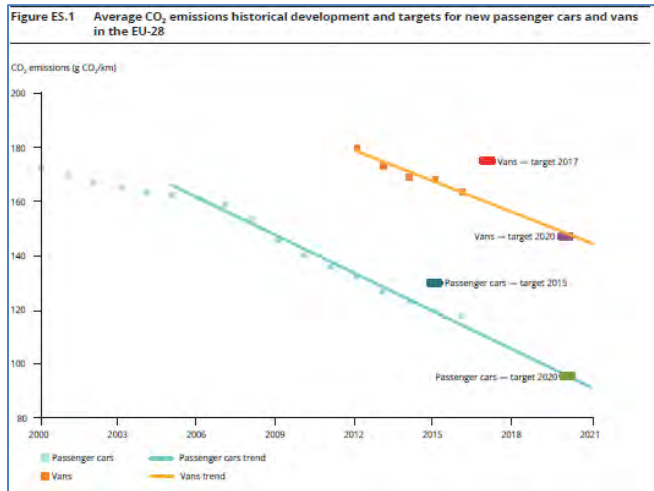
The data shows that new passenger cars sold in the EU in 2016 had average emissions of 118.1 g/km of CO<sub>2</sub>, which is 28% lower than in 2004 when monitoring started, and 1.2% lower than the 2015 data. The average emissions from vans sold in 2016 were 163.7 g/km of CO<sub>2</sub>, below the 2017 target of 175 g/km.

In order to meet their respective future CO<sub>2</sub> emission targets, (95 g/km for cars by 2021 and 147 g/km for vans by 2020), average CO<sub>2</sub> emissions for new cars and vans will need to continue decreasing at a similar pace.

Conventional diesel and petrol cars accounted for a large majority of new sales in 2016 (96.5%). For the first time since 2009, the share of diesel vehicles dropped below half of all new passenger car registrations. However, they remained the most sold vehicles in Europe, making up 49.5% of sales.

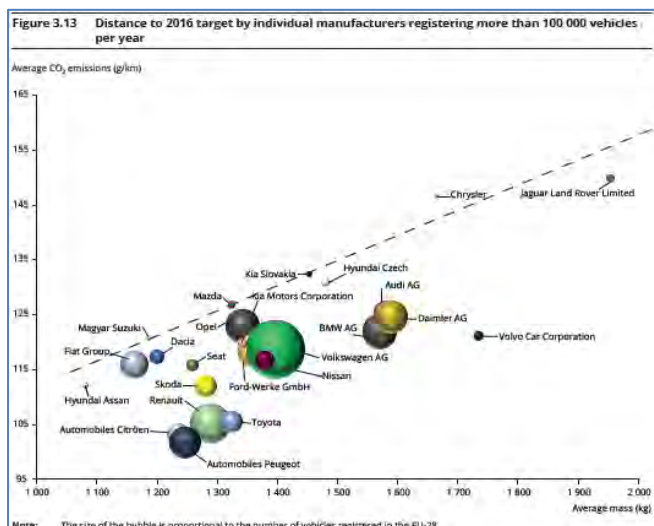


The proportion of plug-in hybrid and battery electric vehicles remained largely the same as in 2015, making up around 1%. For vans, the vast majority of vehicles are fuelled with diesel (96%).



Diesel cars, which on average are around 300 kg heavier than petrol cars, emitted on average 116.8 g/km of CO<sub>2</sub>. This is 4.9 g/km less than the average for petrol cars. In 2000, the emission difference between diesel and petrol cars was much larger, exceeding 17 g/km.

Data on manufacturer's individual performances show that all car and van manufacturers met their CO<sub>2</sub> specific emission targets in 2016. While certain manufacturers would have exceeded their specific emission target, if considered individually, they met their obligations as members of pools.



Amongst the largest car manufacturers, Peugeot (102 g/km) and Citroen (103 g/km) had the lowest average CO<sub>2</sub> emissions for new passenger cars registered in 2016, while Toyota Motor Europe had the highest percentage of new vehicles having emissions below 95 g/km (44%).

The largest reductions in average emission levels of passenger cars in 2016 were achieved by Jaguar Land

Rover Limited (a reduction of 14.2 g/km) and Chrysler (12.1 g/km).

As in each year since vans monitoring commenced, Dacia was the lowest-emitting vans manufacturer (124 g/km in 2016).

The EEA report is at [www.eea.europa.eu/publications/co2-emissions-new-cars-and-vans-2016](http://www.eea.europa.eu/publications/co2-emissions-new-cars-and-vans-2016).

## Car and Van CO<sub>2</sub> Performance of OEMs in 2016

On 30 January 2018, two Commission Implementing Decisions were published in the Official Journal with final calculation of average specific CO<sub>2</sub> emissions performance of manufacturers of passenger cars ((EU) 2018/144) and light commercial vehicles ((EU) 2018/143) for the year 2016.

The European Commission is actually required to calculate each year the average specific emissions of CO<sub>2</sub> and the specific emissions target for each manufacturer of passenger cars in the EU as well as for each pool of manufacturers. On the basis of that calculation, the Commission is to determine whether manufacturers and pools have complied with their specific emissions targets.

The car CO<sub>2</sub> decision is at [http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L\\_.2018.025.01.0064.01.ENG&toc=OJ:L:2018:025:TOC](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2018.025.01.0064.01.ENG&toc=OJ:L:2018:025:TOC)

and the van CO<sub>2</sub> decision is at [http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L\\_.2018.025.01.0049.01.ENG&toc=OJ:L:2018:025:TOC](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2018.025.01.0049.01.ENG&toc=OJ:L:2018:025:TOC).

## Renewables in EU Energy Consumption

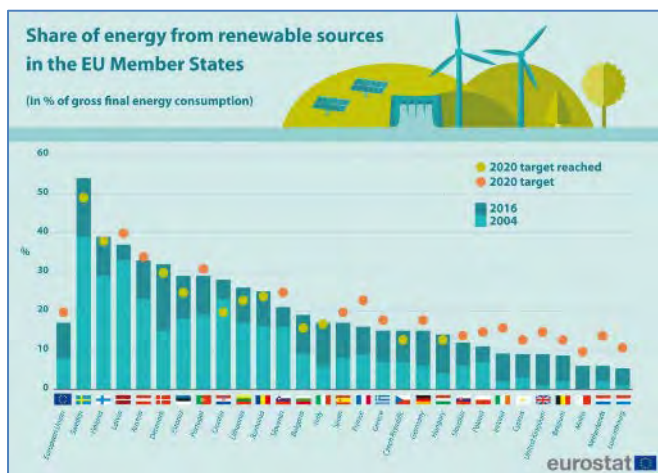
On 25 January 2018, the statistical office of the EU, Eurostat, released the 2016 share of renewables in energy consumption in the EU, being 17%.

Renewable energy sources include wind power, solar power (thermal, photovoltaic and concentrated), hydro power, tidal power, geothermal energy, biofuels and the renewable part of waste. The 17% share in 2016 is double the share in 2004 (8.5%), the first year for which such data are available.

With more than half (53.8%) of its energy coming from renewable sources in its gross final consumption of energy, Sweden had by far the highest share in 2016, ahead of Finland (38.7%), Latvia (37.2%), Austria (33.5%) and Denmark (32.2%). At the opposite end of the scale, the lowest proportions of renewables were registered in Luxembourg (5.4%), Malta and the Netherlands (both 6%).

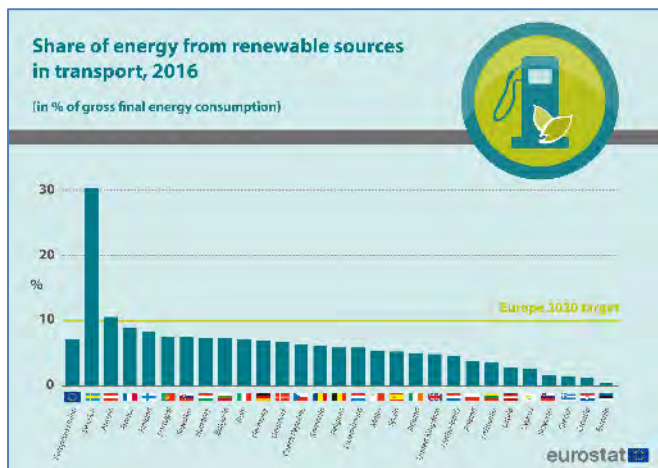
The EU's target is to obtain 20% of energy in gross final consumption of energy from renewable sources by 2020 and at least 27% by 2030. Each EU Member State has its own Europe 2020 target. Among the 28 EU Member States, 11 have already reached the level required to meet their national 2020 targets: Bulgaria, the Czech Republic, Denmark, Estonia, Croatia, Italy, Lithuania, Hungary, Romania, Finland and Sweden. Austria is less than 1

percentage point (pp) away from its 2020 target. At the opposite end of the scale, the Netherlands (8 pp from its national 2020 objective), France (7 pp), Ireland (6.5 pp), the UK (5.7 pp) and Luxembourg (5.6 pp) are the furthest away from their individual targets.



For the transport sector, the EU target for the share of renewable energy (including liquid biofuels, hydrogen, biomethane, 'green' electricity, etc.) is 10% by 2020.

The average share of energy from renewable sources in transport increased from 1.4% in 2004 to 7.1% in 2016. Among the EU Member States the relative share of renewable energy in transport fuel consumption ranged from highs of 30.3% in Sweden and 10.6% in Austria down to less than 2.0% in Croatia, Greece Slovenia and Estonia.



The most widely used renewable energy source in transport are liquid biofuels, which are usually blended with fossil fuels. Due to the binding 2020 target, the production of liquid biofuels in the EU has increased significantly, being biodiesel the liquid biofuel most widely produced, followed by biogasoline and other liquid biofuels.

More info is at [http://ec.europa.eu/eurostat/statistics-explained/index.php/Renewable\\_energy\\_statistics](http://ec.europa.eu/eurostat/statistics-explained/index.php/Renewable_energy_statistics).

## Parliament Study on Renewable Energy Directive Target

A study commissioned by the European Parliament's Committee on Industry, Research and Energy (ITRE) on the Renewable Energy Directive Target was published in January 2018.

This study investigates the impacts and feasibility of increasing the share of renewables beyond the proposed target of 27% for 2030 through a review of recent studies assessing the future energy system in the EU.

The authors examined the impact of selected modelling input factors and modelling approaches on the determination of the optimal share of renewables. Impacts are commonly measured by energy system costs, avoided CO<sub>2</sub> emissions, avoided fossil fuel imports, health effects and changes in Gross Domestic Product and employment.

In models applied to assess Renewable Energy Sources (RES) shares and objectives, assumptions regarding technology availability and costs, fuel prices and discount rates can have a significant impact on the resulting competitiveness of RES, and therefore on the economic feasibility of increasing its share in the energy system.

From a cost perspective, a more ambitious RES target (30-35%) appears to be a feasible objective for 2030 as the impacts of a higher RES share on GDP and employment and health are projected to be positive, even though limited; imports of fossil fuels and GHG emissions are projected to decrease (assuming that emission levels are not constrained by an overall emission cap); and some studies project low or no increase in overall energy system costs, while one recent study even reports cost reductions.

The ITRE study on renewables is at [www.europarl.europa.eu/RegData/etudes/STUD/2018/614201/IPOL\\_STU\(2018\)614201\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2018/614201/IPOL_STU(2018)614201_EN.pdf).

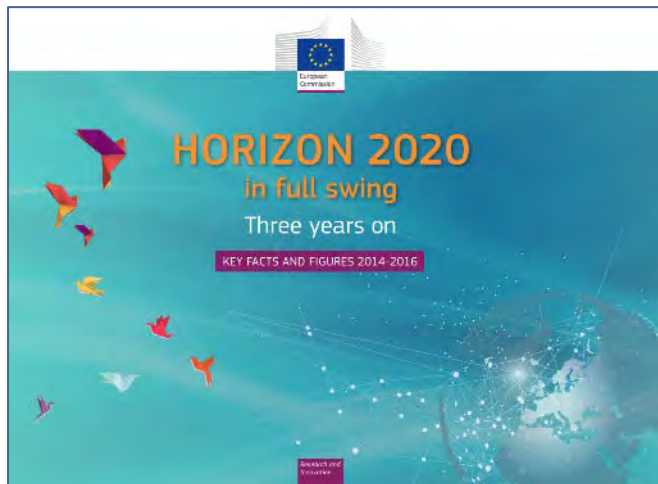
## Commission Brochure on Horizon 2020 Programme

On 23 January 2018, the European Commission released a brochure titled 'Horizon 2020 in full swing – Three years on' which provides key facts and figures on the Horizon 2020 programme for the period 2014-2016.

Horizon 2020 is the EU's Framework Programme for Research and Innovation (2014-2020) with a dedicated budget of around €77 billion over seven years. This brochure provides an overview of the state of play after three years of implementation.

EU research and innovation remains attractive and relevant. A total of 115 235 eligible proposals were submitted under Horizon 2020 calls, requesting a total EC financial contribution of €182.4 billion. This represents close to 400 000 applications. The overall success rate of eligible full proposals is 12.6%. Almost half of the eligible proposals were evaluated by independent experts as being

of high-quality. However, out of these high-quality proposals, only one in four was funded. Overall 13 903 grant agreements were signed, with an EC contribution of €24.8 billion.



Simplification efforts payoff: 90.5% of grant agreements were signed within the target timeframe of eight months. The average time from a proposal being submitted to the grant being awarded keeps decreasing throughout Horizon 2020: it is now 192.5 days, as compared to 303 days in FP7 (Seventh Research Framework Programme which ran from 2007 to 2013).

Around 54% of the Horizon 2020 participants are newcomers (i.e. they had not participated in FP7). Almost half of them are SMEs. The 20% target on the share of funding going to SMEs was reached.

The Horizon 2020 report is at [https://ec.europa.eu/programmes/horizon2020/sites/horizon2020/files/h2020\\_threeyearson\\_a4\\_horizontal\\_2018\\_web\\_with\\_id.pdf](https://ec.europa.eu/programmes/horizon2020/sites/horizon2020/files/h2020_threeyearson_a4_horizontal_2018_web_with_id.pdf).

## JRC Report on Factors influencing People's Car Type Choices in Europe

On 8 January 2018, the Joint Research Centre (JRC) of the European Commission published a report quantifying the factors influencing people's car type choices in Europe.

In this study, the results of a new survey on attitudes and preferences towards battery electric vehicles are reported and compared with those of a similar survey conducted in 2012, so that the evolution of preferences towards electric cars by European drivers can be mapped.

The fact that almost half of the survey sample never chose an electric or fuel cell car as option for their next car purchase in the stated choice experiments leads to the key conclusion that zero tailpipe emission cars still face certain acceptance challenges in Europe.

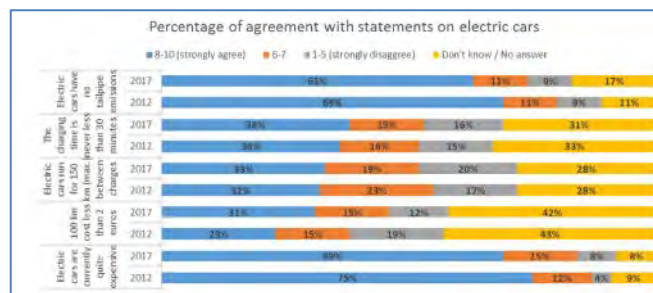
The purchase price continues to represent the major hurdle to widespread adoption of these powertrains. Other reasons mentioned for not buying electric cars were: lack of recharging infrastructure, short range and little model choice. Policies may help to overcome these challenges.

Furthermore, in general, attitudes towards electric cars in Europe have remained relatively stable in the last five years. Because of the size of the sample, knowledge gaps and uncertainties about the attitudes and preferences of European drivers towards low and zero-emission vehicles remain.

In comparison with the results of the 2012 survey, the proportion of consumers strongly agreeing with the statement that electric cars are currently quite expensive has declined during the past five years. This could be attributed to an improvement of the cost competitiveness of this technology in the last five years together with the introduction of purchase subsidies (e.g. in Germany and Spain, in addition to the then already existing in France and the UK) that lowers their price tag.

A second finding shows that the proportion of the surveyed drivers that strongly agree with the statement on the operating cost of electric cars ("100 km costs less than €2") has increased over time. Thus European drivers seem to better appreciate now the economic advantage of using electricity over conventional fuels in electric cars.

A third finding relates to the fact that the consumer awareness on the environmental benefits of electric cars ("Electric cars have no tailpipe emissions") compared to conventional cars seems to have worsened, due to an increase in 'do not know' answers. This may be a sign of growing consumer awareness on life cycle emission aspects, although the question was limited to tailpipe emissions. In this context it may become important to explain the role of the European policy mix to ensure decarbonisation across sectors and ensuring that emissions are not shifted from one sector to another, the report said.



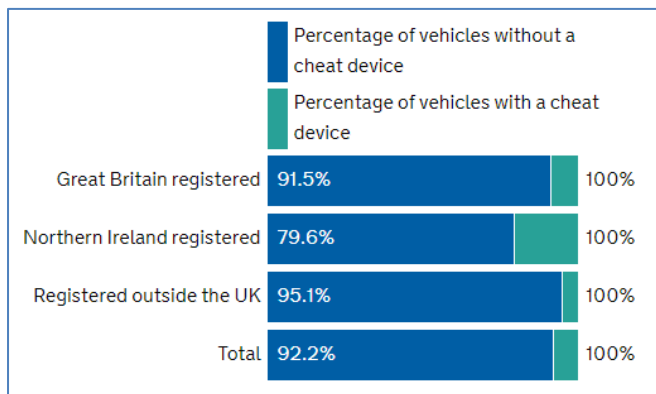
The JRC report on people's car choices is at <https://publications.europa.eu/en/publication-detail/-/publication/5aa5b657-f4ef-11e7-be11-01aa75ed71a1/language-en>.

## Lorries' Emission Control tampering in the UK

On 12 January 2018, the UK Driver and Vehicle Standards Agency (DVSA) reported on results of roadside checks of lorries across Great Britain and emission control tampering.

Between August and December 2017, DVSA examiners searched 3735 lorries at five locations and found 293 lorries with an emission control cheating device fitted.

The way tampering is done include using devices designed to stop emissions control systems from working; removing the diesel particulate filter; using cheap, fake emission reduction devices or diesel exhaust fluid; using illegal engine modifications which result in excessive emissions; and removing or bypassing the exhaust gas recirculation (EGR) valve.



The drivers and operators were given 10 days to fix the emissions system, or face a £300 (€340) fine and having the vehicle taken off the road. Where a driver or operator repeatedly offends, DVSA can take the vehicle off the road immediately.

Following the roadside checks, DVSA examiners are inspecting more than 100 operators' vehicle fleets for emission cheating devices. Some of the companies being inspected operate up to 80 vehicles.

Following the success of this operation, DVSA will start checking for emissions cheat devices at more locations across Great Britain from spring 2018.

## London Air Quality improves

On 15 January 2018, London Mayor Mr Sadiq Khan revealed that, for the first time since modern records began, London was entering the third week of January without having breached legal limits for toxic nitrogen dioxide (NO<sub>2</sub>) air pollution.

Every year for the last decade, London's toxic air has exceeded legal hourly air pollution limits by 6 January and often by 3 January. For London to breach legal hourly limits there needs to be a recording of 18 hours of very high pollution levels at any individual site. As of 15 January 2018, London's NO<sub>2</sub> hourly average limit (of 200 µg/m<sup>3</sup>) has exceeded only eight hours across London.

The improvement in London's air quality can be partly attributed to measures such as the Toxicity Charge (T-Charge) for older, dirtier cars in central London and the first two Low Emission Bus Zones.

However, air quality exceeded the NO<sub>2</sub> hourly limit on 30 January 2018 and recent analysis shows every part of London exceeded the World Health Organisation (WHO) guidelines for PM<sub>2.5</sub>.

For these reasons, stronger vehicle emission standards are scheduled with the central London Ultra-Low Emission Zone from April 2019 onwards.

## Fleet Renewal Incentive Scheme enters into Force in France

On 1 January 2018, a new incentive scheme entered into force in France that intends to phase out polluting vehicles as announced in September 2017 by the Ministry of Ecological and Inclusive Transition.

The bonus scheme intended to encourage motorists to replace petrol-engine cars registered before 1997 and diesel cars registered before 2001 with ones that emit less than 130g CO<sub>2</sub>/km was extended. The up to €1000 bonus for the purchase of new vehicles, which was previously available only to low-income families, has now been extended to all citizens and to second-hand cars. For poorer families, the premium has doubled from €1000 to €2000. Also, to buy an electric car, the incentive amounts to €2500, on top of a €6000 subsidy.

Measures brought into force at the beginning of the year in France also include bonuses and tax credits for energy savings at home, and specifically target low-income households.

More information is at [www.ecologique-solidaire.gouv.fr/entree-en-vigueur-des-quatre-mesures-du-paquet-solidarite-climatique-au-1er-janvier-2018](http://www.ecologique-solidaire.gouv.fr/entree-en-vigueur-des-quatre-mesures-du-paquet-solidarite-climatique-au-1er-janvier-2018).

## Belgium increases Minimum Volumes of Sustainable Biofuels

On 16 January 2018, Belgium notified the European Commission of a draft Royal Decree increasing the minimum nominal volumes of sustainable biofuels that must be contained in the volumes of petrol and diesel fuels released annually for consumption.

The draft Decree sets the volume of sustainable biofuels mixed with fossil fuels at 8.5%, limits the proportion of sustainable biofuels produced from cereals and other plants with a high starch, sugar and oil content and from plants grown as a main crop primarily for energy production on agricultural land to 7%, and requires the inclusion of at least 0.1% sustainable biofuels produced from the raw materials listed in Annex IV to the Royal Decree of 16 July 2014. Lastly, the draft introduces a double counting system for sustainable biofuels produced from the raw materials listed in Annex IV.

Any company which releases E5 petrol, E10 petrol and/or diesel fuel for consumption must guarantee and prove that the volumes released for consumption over the calendar year contain a minimum nominal volume of sustainable biofuels as defined in the Decree.

More information is at <http://ec.europa.eu/growth/tools-databases/tris/en/index.cfm/search/?trisaction=search.detail&year=2018&num=12&mLang=EN>.



## Low Emission Zone entered into Force in Brussels

On 1 January 2018 the first stage of the new Low Emission Zone (LEZ) entered into force in Brussels, Belgium.

Vehicle access criteria of Brussels LEZ are based on Euro standards, with a stepwise ban of older vehicles. On 1 January 2018, diesel cars first registered before 1997 (i.e. Euro 1 and below) were banned throughout the entire Brussels capital region. Next year, the only diesel cars allowed on the road will be those that meet the Euro 4 emission standard of 2006. Pre-2001 petrol vehicles will also be banned from 2019.

Drivers are nevertheless allowed to use a banned vehicle for up to eight days a year, on payment of a tax of €35-a-day. Priority vehicles, including those providing transport for the elderly or disabled, are exempted.

DIESEL	2018	2019	2020	2021	2022	2023	2024	2025
EURO 6 / VI	Access	Access	Access	Access	Access	Access	Access	Access
EURO 5 / V	Access	Access	Access	Access	Access	Access	Access	Access with paid-for pass*
EURO 4 / IV	Access	Access	Access	Access	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*
EURO 3 / III	Access	Access	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*
EURO 2 / II	Access	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*
EURO 1 / I	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*
No EURO standard	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*

\*Maximum 8 days access a year

PETROL/LPG/CNG	2018	2019	2020	2021	2022	2023	2024	2025
EURO 6 / VI	Access	Access	Access	Access	Access	Access	Access	Access
EURO 5 / V	Access	Access	Access	Access	Access	Access	Access	Access
EURO 4 / IV	Access	Access	Access	Access	Access	Access	Access	Access
EURO 3 / III	Access	Access	Access	Access	Access	Access	Access	Access
EURO 2 / II	Access	Access	Access	Access	Access	Access	Access	Access with paid-for pass*
EURO 1 / I	Access	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*
No EURO standard	Access	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*	Access with paid-for pass*

\*Maximum 8 days access a year

More information is at [www.lez.brussels](http://www.lez.brussels).

## Amsterdam Low Emission Zone affects Mopeds, Taxis, Buses and Coaches

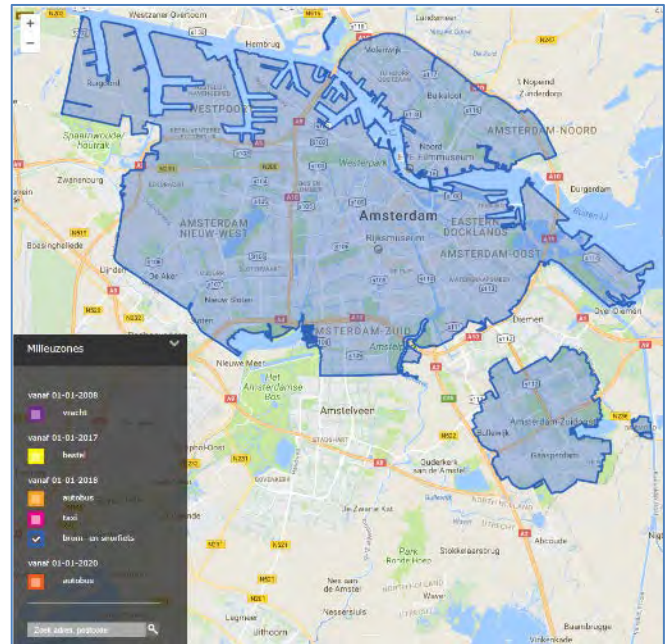
On 1 January 2018, the Low Emission Zone (LEZ) of Amsterdam, the Netherlands, was extended to affect mopeds, diesel taxis, buses and coaches.

Amsterdam introduced a LEZ on 9 October 2008; affecting lorries above 3.5 tons and diesel light-duty vehicles. Minimum standards are Euro IV/4.

On 1 January 2018, restrictions applied also to mopeds first registered in 2010 or older, over the entire built-up area of Amsterdam which is much wider than the original LEZ.

On 1 January 2018, diesel taxis registered in 2008 or before and buses and coaches registered in 2004 or before were banned from the central Amsterdam LEZ.

From 1 January 2020 the LEZ for buses and coaches will cover the same, larger area as for mopeds.



More information (in Dutch) is at [www.amsterdam.nl/parkeren-verkeer/milieuzone](http://www.amsterdam.nl/parkeren-verkeer/milieuzone).

## Malta and Romania to EU Court on Alternative Fuels Infrastructure

On 25 January 2018, the European Commission decided to refer Malta and Romania to the EU Court of Justice for failing to notify their national policy frameworks on the deployment of alternative fuels infrastructure.

Under Directive 2014/94/EU, Member States were required to notify to the Commission by November 2016 their national policy frameworks on the deployment of their infrastructure of alternative fuels (electricity, hydrogen, biofuels, synthetic and paraffinic fuels, compressed natural gas, liquefied natural gas, and liquefied petroleum gas). To date Malta and Romania have failed to do so despite a letter of formal notice and a reasoned opinion sent by the Commission in February and July 2017 respectively.

Accelerating alternative fuels infrastructure deployment is essential to deliver a clean and competitive mobility to all Europeans, as announced by the Commission in the "Clean Mobility Package" adopted in November 2017.

## Infringement Procedures against Six Member States on Roadworthiness

On 25 January 2018, the European Commission requested 6 Member States to fully transpose the 'Roadworthiness Package' adopted in 2014.

This package is made of three EU Directives which Member States were required to transpose by 20 May 2017. To date, however, Cyprus, the Czech Republic,

Germany, Ireland, Romania and Slovakia have not – or only partially – done so.

Firstly, the Czech Republic, Romania and Slovakia have not adopted, published and communicated to the Commission the national measures transposing the updated rules on the Periodical Technical Inspection (PTI) of motor vehicles and their trailers (Directive 2014/45/EU).

Secondly, Cyprus, Ireland, and Slovakia have not adopted, published and communicated to the Commission national measures transposing the updated rules concerning the registration documents for vehicles (Directive 2014/46/EU).

Finally, the Czech Republic, Germany, Ireland and Slovakia have not adopted, published and communicated to the Commission the national measures transposing the update regime for the technical roadside inspection of commercial vehicles (Directive 2014/47/EU).

The Commission sent these requests in the form of reasoned opinions. All Member States concerned now have two months to reply; otherwise, the Commission may decide to refer them to the EU Court of Justice.

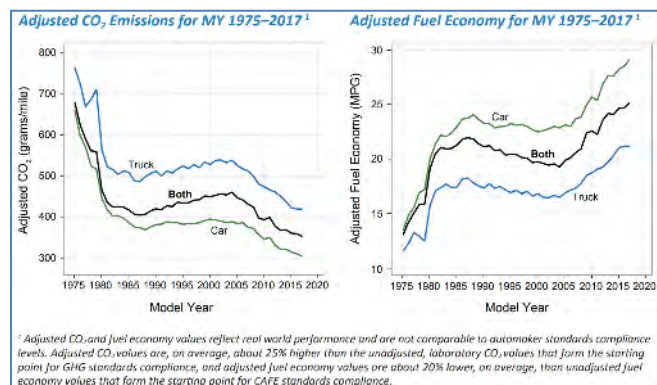
## NORTH-AMERICA

### US EPA Report on Real-World Light-Duty Vehicles' CO<sub>2</sub> and Fuel Economy

On 12 January 2018, the US Environmental Protection Agency (EPA) released a report on real-world light-duty vehicles' CO<sub>2</sub> and fuel economy trends between 1975 and 2017.

The final model year (MY) 2016 adjusted, real world CO<sub>2</sub> emissions rate for all new personal vehicles is 359 g/mi (i.e. 223 g/km), which is a 2 g/mi (i.e. 1.25 g/km) decrease from MY 2015 and the lowest level ever.

The MY 2016 adjusted fuel economy is 24.7 miles per gallon (mpg) (i.e. fuel consumption of 9.52 l/100 km). Both cars and trucks reached record adjusted fuel economy in MY 2016. The average MY 2016 adjusted fuel economy for cars increased to 28.5 mpg (i.e. fuel consumption of 8.25 l/100 km), a 0.3 mpg increase over MY 2015. MY 2016 trucks also increased 0.1 mpg to 21.2 mpg (i.e. fuel consumption of 11.10 l/100 km).



Since MY 2004, CO<sub>2</sub> emissions have decreased by 102 g/mi (i.e. 63.4 g/km), or 22%, and fuel economy has increased by 5.4 mpg, or 28%, with an average annual improvement of about 0.5 mpg per year.

Preliminary MY 2017 adjusted CO<sub>2</sub> emissions are projected to be 352 g/mi (i.e. 219 g/km) and fuel economy is projected to be 25.2 mpg (i.e. fuel consumption of 9.33 l/100 km), which would be a further improvement over MY 2016.

The US EPA report is at [www.epa.gov/fuel-economy-trends/download-report-co2-and-fuel-economy-trends](http://www.epa.gov/fuel-economy-trends/download-report-co2-and-fuel-economy-trends).

## EURASIA

### Euro 5 enters into Force in Eurasian Economic Union

Media reported that from 1 January 2018 on, all vehicles produced in or imported to the Eurasian Economic Union (EAEU) have to meet the Euro 5/V emissions standard.

EAEU countries include the Russian Federation, Belarus, Armenia, Kazakhstan, and Kyrgyzstan.

The emissions requirements apply to on-road vehicles, including trucks and buses. The press reports did not indicate whether fuel standards are in place to require the sale of only ultra-low sulfur fuels in the five EAEU countries.

## ASIA PACIFIC

### Beijing achieves Air Quality Goal in 2017

On 3 January 2018, Liu Baoxian, deputy director of Beijing environmental protection monitoring centre, announced that the average concentration of PM<sub>2.5</sub> in Beijing was 58 µg/m<sup>3</sup> in 2017, meeting the goal set by the State Council.

The PM<sub>2.5</sub> average concentration dropped by 20.5% compared with the 2016 level. Concentration of major pollutants SO<sub>2</sub>, NO<sub>2</sub> and PM<sub>10</sub> also dropped drastically to 8, 46 and 84 µg/m<sup>3</sup> respectively. These correspond to a 20% reduction in SO<sub>2</sub> concentration, 4.2% NO<sub>2</sub> and 8.7% PM<sub>10</sub> compared with 2016.

The Chinese capital city saw 226 good air days in 2017, 28 days more than in 2016. The number of heavy pollution days decreased by 16 to 23.

### China fines Two Local Truck Manufacturers for Emission Exceedances

On 9 January 2018, *Reuters* reported that China's Ministry of Environmental Protection (MEP) had fined two local truck manufacturers for producing vehicles that do not meet pollution standards and for engaging in emissions fraud.

According to the press, the MEP fined Shandong-based Kama Automobile Manufacturing 31.74 million yuan (€4 million) for exceeding emissions standards in its diesel

trucks and for misusing pollution control devices in order to pass inspections.

It also fined the Shandong Tangjun Ouling Automobile more than 7 million yuan (€900 000) after 109 of the company's light diesel trucks were found to have exceeded emissions standards.

The Environment Ministry said the move was the first time that automakers had been fined as a result of violations of China's air pollution regulations, and showed the country would display "zero tolerance" for firms that break the law.

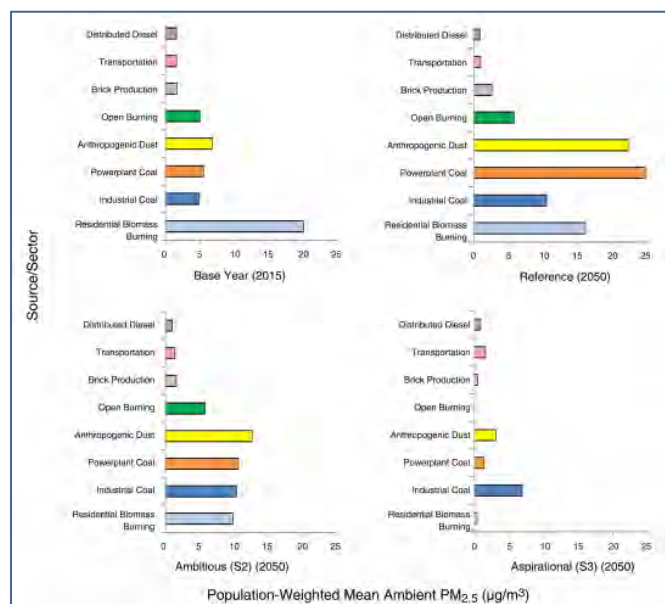
## Indian Air Pollution Sources and Health Impact

On 11 January 2018, the Health Effects Institute (HEI) published a report on the burden of disease attributable to major air pollution sources in India.

The report provides a comprehensive analysis of the levels of fine particulate matter air pollution (PM<sub>2.5</sub>) in India by source at the state level and their impact on health. It is the result of the Global Burden of Disease from Major Air Pollution Sources (GDB MAPS) project, an international collaboration of the Indian Institute of Technology (Bombay), HEI, and the Institute for Health Metrics and Evaluation (Seattle, US).

The analysis reports that air pollution exposure contributed to some 1.1 million deaths in India in 2015. Household burning emissions (contributing to outdoor air) and coal combustion are the single largest sources of air pollution-related health impact, with emissions from agricultural burning, anthropogenic dusts, transport, other diesel, and brick kilns also contributing significantly.

Using three different scenarios projecting out to the year 2050, the study identifies in detail the challenges posed by the many sources of air pollution in India, but also highlights the significant progress that can be made.



The HEI report is at [www.healtheffects.org/publication/gbd-air-pollution-india](http://www.healtheffects.org/publication/gbd-air-pollution-india).

## GENERAL

### ADAC publishes 2017 EcoTest Ranking

On 25 January 2018, the ADAC German automobile club published its EcoTest ranking for 2017.

In the ADAC EcoTest CO<sub>2</sub> and pollutant emissions are measured on the test bench but also on the road. Electric cars are ranking first because they drive locally emission-free. Nevertheless, ADAC does not see them as "zero-emission vehicles" and is using a well-to-wheel approach, burdening them with CO<sub>2</sub> emissions from electricity generation according to the current electricity mix in Germany. This allows for a more fair comparison to internal combustion engines, ADAC said.

The most environmentally-friendly 5\* category includes five battery electric and plug-in electric models. The 4\* category contains 17 car models: the first one is the natural gas Audi A4 Avant g-tron S tronic. That category includes a wide variety of powertrains. The first diesel car ranks 13<sup>th</sup> and is the Mercedes E 220 d T-model 9G-Tronic.

The complete ADAC EcoTest ranking 2017 at [www.adac.de/der-adac/motorwelt/reportagen-berichte/auto-innovation/adac-ecotest-ranking-2017](http://www.adac.de/der-adac/motorwelt/reportagen-berichte/auto-innovation/adac-ecotest-ranking-2017).

### ICCT Briefing on EU Proposal for Post-2020 CO<sub>2</sub> Standards for Cars and Vans

On 9 January 2018, the International Council on Clean Transportation (ICCT) published a briefing that summarizes and evaluates the key elements of the recent European Commission's proposal on post-2020 CO<sub>2</sub> standards for new cars and vans.

Under the EC proposal, average new vehicle CO<sub>2</sub> emission levels would have to fall by 15% by 2025 and 30% by 2030. These percentage reduction requirements are the same for cars and vans, but the starting point varies slightly (2020 for vans and 2021 for cars). If a manufacturer failed to meet its CO<sub>2</sub> reduction requirement, the EC proposal stipulates a penalty of €95 per g/km of exceedance for each newly registered vehicle, the same penalty imposed under the 2020/21 CO<sub>2</sub> standards.

Although in principle percentage reduction targets are the same for every manufacturer, the regulatory proposal provides flexibility with regard to the distribution of efforts among manufacturers. The heavier a manufacturer's new-vehicle fleet, the higher its target values (in g/km) in 2020/21, 2025, and 2030 will be. The weight adjustment mechanism is, in principle, the same as in current regulations. However, from 2025 onward the WLTP test mass, rather than the mass in running order as defined under the NEDC (which tends to be a lower value for the same vehicle), will be used for all calculations.

The EC also proposes a novel mechanism that rewards manufacturers that sell greater shares of zero-emission and low-emission vehicles (ZLEVs) with less stringent CO<sub>2</sub> requirements. ZLEVs are all vehicles that emit less than 50

g/km of CO<sub>2</sub> on a tank-to-wheel (TTW) basis, namely battery-electric (BEV), fuel cell electric (FCEV), and (some) plug-in hybrid electric (PHEV) vehicles. The EC proposal sets a target ZLEV market share of 15% for 2025 and 30% for 2030. The lower the CO<sub>2</sub> emission level of a ZLEV, the more it counts toward the market share target. A manufacturer exceeding these targets would see its CO<sub>2</sub> reduction requirements eased proportionally.

The transition to the World harmonized Light Vehicles Test Procedure (WLTP) introduces an element of uncertainty regarding the absolute CO<sub>2</sub> target levels for 2025/30. Depending on the development of the vehicle market between now and 2020, the proposed EC target values are likely to move further away from the CO<sub>2</sub> reduction range originally envisioned by the European Parliament. As an alternative approach, defining 2025 and 2030 CO<sub>2</sub> targets in absolute (g/km) terms, applying a technically sound NEDC-WLTP conversion factor, would provide more planning security and would eliminate potential for gaming, the ICCT said.

The ICCT briefing on post-2020 CO<sub>2</sub> standards is at [www.theicct.org/sites/default/files/publications/ICCT\\_EU-CO2-proposal\\_briefing\\_20180109.pdf](http://www.theicct.org/sites/default/files/publications/ICCT_EU-CO2-proposal_briefing_20180109.pdf).

## ICCT Report on Cost Effectiveness of HDV Fuel Efficiency Technologies

On 16 January 2018, the International Council on Clean Transportation (ICCT) published a new report on “EU Heavy-Duty Vehicles (HDVs): Cost effectiveness of fuel efficiency technologies for long-haul tractor-trailers in the 2025-2030 timeframe”.

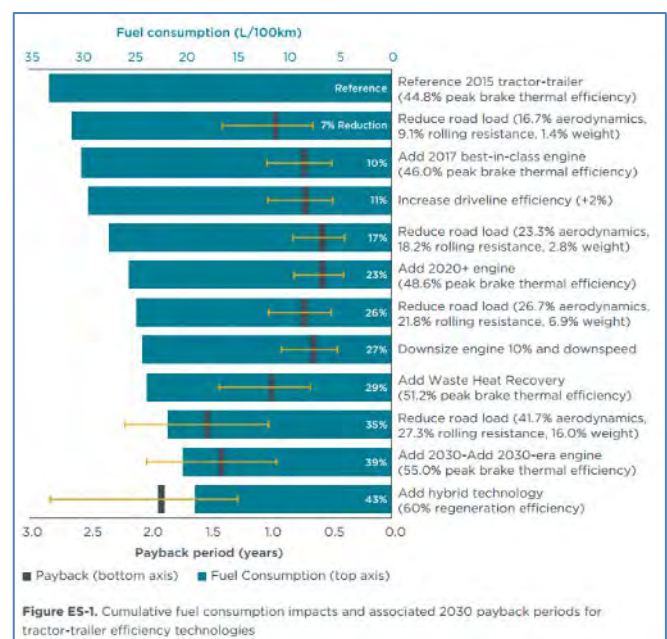
The fundamental approach in this assessment involves deriving technology costs from the best available data on heavy-duty vehicle and engine technologies to assess the cost-effectiveness of increasingly efficient tractor-trailer technology packages. Economic impact metrics are investigated, including investment payback period, lifetime fuel savings, and the marginal cost associated with various technology packages under a range of economic assumptions. All economic calculations include a ratio of 1.4 trailers for each tractor to account for the fact that the population of trailers that will need to be equipped with fuel consumption reduction technology exceeds the number of tractors.

The primary finding of this study is that substantial improvements are available to cost-effectively increase long-haul tractor-trailer efficiency. This reflects wide-ranging technology availability and extensive lifetime mileage. While upfront technology and net present value maintenance costs can be significant, the economic return more than justifies an investment in efficiency for the entire range of cases investigated.

A representative baseline long-haul tractor with 1.4 trailers costs approximately €139 500 in 2016, excluding VAT. Available efficiency technology packages offering moderate fuel consumption reductions of as much as 27%

are projected to cost €7000 to €7750 in 2025-2030 based on best available cost data and conventional technology learning assumptions. The potential discounted lifetime fuel savings for these moderate efficiency packages range from €41 900 to €106 450 per tractor-trailer, depending on discount rate and fuel price assumptions.

The most advanced technology package offers a 43% distance-specific fuel consumption reduction and is estimated to cost €30 550 to €35 150 in 2025-2030. But this package would generate lifetime fuel savings of €65 850 to €167 550 per tractor-trailer. For the most advanced technology package, the efficiency component costs are roughly equally distributed among the powertrain, the hybrid system, the tractor, and the trailer.



Overall, the ICCT concludes that available efficiency technologies for long-haul tractor-trailers have fuel savings that greatly exceed the up-front costs of technology and maintenance; emerging advanced efficiency technologies offer more substantial fuel savings and attractive payback periods over the long term; tractor-trailer efficiency technologies’ attractive payback periods persist even in the event of higher technology costs and low fuel prices; and tractor-trailer efficiency technologies offer first-owner fuel savings that greatly exceed the increased upfront capital and maintenance impact costs.

The ICCT report is at [www.theicct.org/sites/default/files/publications/ICCT\\_EU-HDV-tech-2025-30\\_20180116.pdf](http://www.theicct.org/sites/default/files/publications/ICCT_EU-HDV-tech-2025-30_20180116.pdf).

## PwC Report on Five Trends transforming the Automotive Industry

On 16 January 2018, PwC released a new report on five trends transforming the automotive industry.

According to PwC, the car of the future is electrified, autonomous, shared, connected and yearly updated – or “easycy” for short.

The report outlines a series of seemingly contradictory findings. For example, while vehicle stock could fall dramatically in Europe and the US in 2030, traffic on the roads will become even heavier. And although the number of new registrations will rise considerably, many conventional manufacturers and suppliers will come under pressure.

As a result of novel sharing concepts, the stock of cars could fall from 280 to 200 million in Europe and 270 to 212 million in the US. China, in contrast, is expected to see its vehicle inventory rise to 280 million vehicles in 2030, up from 180 million today.

Under PwC’s scenario, by 2030, 55% of all new vehicles may be electric cars, while the conventional combustion engine will “slowly die out.” With more people turning to car-sharing models, there are likely to be far fewer car owners by 2030, PwC says. However, at the same time, individual traffic will increase. Personal mileage in Europe could rise by 23% by 2030 to 5.88 billion kilometres. Forecasts predict an increase of 24% in the US and 183% in China.

The PwC scenario assumes that the number of annual new registrations in Europe may increase by one third to more than 24 million cars by 2030; this would be the only way to compensate for the higher wear and tear on cars due to car-sharing concepts. For the US, PwC assumes that there could be growth of 20% and new car sales of almost 22 million in the year 2030. For China, a rise of over 30% to 35 million units sold is expected.

The PwC report is at [www.pwc.com/gx/en/industries/automotive/assets/pwc-five-trends-transforming-the-automotive-industry.pdf](http://www.pwc.com/gx/en/industries/automotive/assets/pwc-five-trends-transforming-the-automotive-industry.pdf).

## ICCT Update on China’s New Energy Vehicle Mandate Policy

On 12 January 2018, the International Council on Clean Transportation (ICCT) published an update on the final rule of China’s New Energy Vehicle (NEV) mandate.

This policy update provides an overview of how the NEV mandate policy will work, summarizes the major differences between the final rule and the interim proposal, and evaluates potential impacts of this policy.

China’s Ministry of Industry and Information Technology (MIIT) finalized its New Energy Vehicle (NEV) mandate in September 2017. The NEV mandate is a modified version of California’s Zero Emission Vehicle (ZEV) mandate, with goals of promoting new energy vehicles and providing additional compliance flexibility to the existing fuel consumption regulation. It applies only to passenger cars and will formally take effect on 1 April 2018.

The rule establishes NEV credit targets of 10% of the conventional passenger vehicle market in 2019 and 12% in

2020. Each NEV sold generates some credits, depending on characteristics such as electric range, energy efficiency, and rated power of fuel cell systems. The final NEV market share achieved under the influence of the credit targets will therefore depend on the final fleet mix.

In the final rule, MIIT made several major changes from the interim proposal:

- One-year delay in mandatory NEV credit requirements, from 2018 to 2019;
- Tightened exemption criteria for small-volume manufacturers;
- Stricter technical thresholds on speed and e-range for NEV credit qualification;
- Variable per-vehicle credit for battery electric vehicles (BEVs) based on e-range;
- Higher per-BEV credit based on electric efficiency;
- Variable per-vehicle credit for fuel cell electric vehicles (FCVs).

The ICCT update on NEVs is at [www.theicct.org/sites/default/files/publications/ICCT\\_China-NEV-mandate\\_policy-update\\_20180111.pdf](http://www.theicct.org/sites/default/files/publications/ICCT_China-NEV-mandate_policy-update_20180111.pdf).

## RESEARCH SUMMARY

### Effects of Emissions and Pollution

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## Emissions Control, Catalysis, Filtration

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## Transport, Climate Change & Emissions

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## FORTHCOMING CONFERENCES

### 21<sup>st</sup> Forum on Eco-Innovation – Air Quality

5-6 February 2018, Sofia, Bulgaria

[http://ec.europa.eu/environment/ecoinnovation2018/1st\\_forum](http://ec.europa.eu/environment/ecoinnovation2018/1st_forum)

The Forum will examine eco-innovative solutions for improving air quality. In particular, air pollution originating from energy use, transport and agriculture will be addressed. The issue of how to secure financing for eco-innovative solutions will also be discussed. This event is jointly organized by the European Commission's Directorate General for Environment and the Ministry of Environment and Water of the Republic of Bulgaria.

### New Direct Injection 2-Stroke Engines Conference

15 February 2018, Rueil-Malmaison, France

[http://ifp-school.com/upload/docs/application/pdf/2017-12/di\\_2-stroke\\_conference\\_program\\_brochure.pdf](http://ifp-school.com/upload/docs/application/pdf/2017-12/di_2-stroke_conference_program_brochure.pdf)

Sessions of the conference will address from micro to small 2-stroke engines; poppet valves DI 2-stroke engines; DI 2-stroke engines for motorcycles and range extender; and innovative DI 2-stroke engines from concept to production.

### 10<sup>th</sup> International AVL Exhaust Gas and Particulate Emissions Forum

20-21 February 2018, Ludwigsburg, Germany

[www.avl.com/web/de/-/10th-international-avl-exhaust-gas-and-particulate-emissions-forum](http://www.avl.com/web/de/-/10th-international-avl-exhaust-gas-and-particulate-emissions-forum)

**AECC will give a presentation on Real-Driving Emissions from a Gasoline Plug-in Hybrid vehicle with and without a Gasoline Particulate Filter.**

### 2<sup>nd</sup> Real-Driving Emissions Forum

6-7 March 2018, Amsterdam, Netherlands

[www.bisgrp.com/portfolio/conferences/automotive/2nd-annual-real-driving-emissions-forum](http://www.bisgrp.com/portfolio/conferences/automotive/2nd-annual-real-driving-emissions-forum)

### 11<sup>th</sup> International Conference on Air Quality – Science and Application

12-16 March 2018, Barcelona, Spain

Reaching carbon neutral transport sector in Denmark – Evidence from the incorporation of modal shift into the TIMES energy system modeling framework, Jacopo Tattini, et al.; *Energy Policy* (February 2018), Vol. 113, pp. 571-583, doi: [10.1016/j.enpol.2017.11.013](https://doi.org/10.1016/j.enpol.2017.11.013).

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Assessing direct and indirect emissions of greenhouse gases in road transportation, taking into account the role of uncertainty in the emissions inventory, Alessandra La Notte, et al.; *Environmental Impact Assessment Review* (March 2018), Vol. 69, pp. 82-93, doi: [10.1016/j.eiar.2017.11.008](https://doi.org/10.1016/j.eiar.2017.11.008).

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[www.airqualityconference.org](http://www.airqualityconference.org)

*The conference brings together participants from the air quality, climate and health research and other stakeholder communities to discuss the latest research advances, new applications and highlight important implications for policy and users.*

## Integer Emissions Summit & AdBlue® Forum Asia Pacific 2018

14-15 March 2018, Tokyo, Japan

[www.integer-research.com/conferences/ies-apac-2018](http://www.integer-research.com/conferences/ies-apac-2018)

## WCX18: SAE World Congress Experience

10-12 April 2018, Detroit, USA

[www.wcx18.org](http://www.wcx18.org)

## 8<sup>th</sup> AVL Large Engines TechDays

11-12 April 2018, Graz, Austria

[www.avl.com/-/8th-avl-large-engines-techdays](http://www.avl.com/-/8th-avl-large-engines-techdays)

*Electrification, New Fuels and Power Sources: Boom or Doom for Large Engines?*

## TRA 2018 – A Digital Era for Transport

16-19 April 2018, Vienna, Austria

[www.traconference.eu](http://www.traconference.eu)

*Key focus areas of TRA 2018 will be how digitalisation is transforming transport & mobility systems; decarbonisation & future growth – how to change our mobility system & remain competitive; and shaping the new mobility landscape – a vision for transport & mobility for Europe.*

## 7<sup>th</sup> Annual Platts Geneva Biofuels Conference

26 April 2018, Geneva, Switzerland

[www.platts.com/events/emea/EU-Biofuels/index](http://www.platts.com/events/emea/EU-Biofuels/index)

*Key topics will include policy updates (RED II and updates on NER300 and H2020), feedstock markets for first and advanced generation biofuels, pricing and trading techniques, international outlook with a focus on production and trade flow due to the duties updates.*

## 39<sup>th</sup> International Vienna Motor Symposium

26-27 April 2018, Vienna, Austria

<https://wiener-motorensymposium.at>

*Outstanding lecturers from all over the world will present the latest findings in engine development and, amongst other topics, will report on new engines, fuel cells, hybrid technology, exhaust gas treatment and real driving emissions (RDE).*

## 7<sup>th</sup> Freiburg Workshop 'Luftreinhaltung und Modelle'

15-16 May 2018, Freiburg, Germany

[www.ivu-umwelt.de/front\\_content.php?idcat=3](http://www.ivu-umwelt.de/front_content.php?idcat=3)

## SIA Powertrain 2018: the New Compression Engine for Passenger Cars & Commercial Vehicles

16-17 May 2018, Rouen, France

[www.sia.fr/evenements/93-sia-powertrain-rouen-2018](http://www.sia.fr/evenements/93-sia-powertrain-rouen-2018)

*The conference will support the automotive community in providing an overall picture of state-of-the-art technologies and by anticipating future development challenges. Reflecting the ongoing focus shift in transportation decarbonisation to a well-to-wheel basis, new topics will be introduced on alternative powertrain energy types (sustainable liquid and gaseous fuels) and fuel cells.*

## Integer Emissions Summit & AdBlue® Forum China 2018

5-7 June 2018, Beijing, China

[www.integer-research.com/conferences/ies-china-2018](http://www.integer-research.com/conferences/ies-china-2018)

## Connectivity – Key to future emission and consumption reduction in vehicle and powertrain?

7-8 June 2018, Graz, Austria

[www.avl.com/-/30th-international-avl-conference-engine-environment-2018](http://www.avl.com/-/30th-international-avl-conference-engine-environment-2018)

*On the one hand, connectivity enables predictive and adaptive management of energy and emissions with advantages regarding energy consumption, emissions, wear and durability thanks to the online monitoring of all relevant system parameters. On the other hand, the subject "Online Vehicle" necessitates stricter requirements being placed on data security*



and also causes a paradigm shift in the development and validation of vehicles. The questions "what does networking make possible, what is meaningful, and how do we control the corresponding risks" pose quite possibly the most intriguing range of topics in automotive development today.

## 6<sup>th</sup> International Exhaust Emissions Symposium

14-15 June 2018, Bielsko-Biala, Poland  
[www.bosmal.com.pl/693-symposium\\_2018](http://www.bosmal.com.pl/693-symposium_2018)

The main topics of the symposium are emissions legislation - for all jurisdictions; WLTP- and RDE-focused R&D test methods; fuel economy in light of Euro 6d, WLTP and RDE; new methods of PM testing; compounds which are potential candidates for emissions regulation; emissions test equipment (including PEMS); emissions reduction technology; aftertreatment systems, technologies and strategies; emissions simulation; powertrain development and electrification; IC Engine test method development; vehicular fuel development; alternative fuels, fuel additives and fuel blends; gaseous fuels CNG & LPG; engine oil development; commercial vehicles, discussion of other automotive sectors: synergies and shared challenges/solutions.

## Cambridge Particle Meeting 2018

15 June 2018, Cambridge, UK  
[www.cambridgeparticlemeeting.org/2018](http://www.cambridgeparticlemeeting.org/2018)

**Deadline for abstract: 1 April 2018**

## 22<sup>nd</sup> ETH- Conference on Combustion Generated Nanoparticles

18-21 June 2018, Zurich, Switzerland  
[www.nanoparticles.ethz.ch](http://www.nanoparticles.ethz.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: 23 March 2018**

## 7<sup>th</sup> International MinNOx Conference

19-20 June 2018, Berlin, Germany  
[www.iav.com/MinNOx](http://www.iav.com/MinNOx)

Topics of the conference include: exhaust emission legislation, MinNOx systems in diesel, gasoline and hybrid powertrains from passenger car to heavy-duty as well as off-highway applications; global optimization of engine and MinNOx systems to reduce both NOx and CO<sub>2</sub> emissions; innovative ideas and methods for the development, modelling or control of component and overall systems; emission control technologies; boundary conditions for operating MinNOx systems monitoring and diagnostics of MinNOx systems; and potential for cost reduction of future concepts.

## The Future of Transportation World Conference

19-20 June 2018, Cologne, Germany  
[www.thefutureoftransportconference.com](http://www.thefutureoftransportconference.com)

Conference streams include urban mobility & smart cities; mobility as a service; quantum shifts; sustainability in transportation; changing landscape for automotive industry; etc.

## Integer Emissions Summit & AdBlue<sup>®</sup> Forum Europe 2018

26-28 June 2018, Brussels, Belgium  
[www.integer-research.com/conferences/integer-emissions-summit-adblue-forum-europe-2018](http://www.integer-research.com/conferences/integer-emissions-summit-adblue-forum-europe-2018)

The summit will cover emissions control for heavy-duty commercial vehicles, non-road mobile machinery, light-duty vehicles and passenger cars, and the European AdBlue<sup>®</sup> market.

## Powertrain Modelling and Control Conference 2018

10-11 September 2018, Leicester, UK  
[www.pmc-conf.com](http://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

**Deadline for abstract: February 2018**

## SAE International Powertrains, Fuels & Lubricants Meeting

17-19 September 2018, Heidelberg, Germany

[www.pfl18.org](http://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.*

**Deadline for abstract: 12 February 2018**

## 37<sup>th</sup> FISITA World Automotive Congress: Disruptive Technologies for Affordable and Sustainable Mobility

2-5 October 2018, Chennai, India

[www.fisita-congress.com](http://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](http://www.aachener-kolloquium.de)

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

## 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<sup>®</sup> Forum India 2018

17-18 October 2018, New Delhi, India

[www.integer-research.com/conferences/ies-india-2018/](http://www.integer-research.com/conferences/ies-india-2018/)

## 11<sup>th</sup> 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<sub>2</sub> 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).*

**Deadline for abstract: 15 February 2018**

## Integer Emissions Summit USA 2018

6-7 November 2018, Indianapolis, USA

[www.integer-research.com/conferences/ies-usa-2018/](http://www.integer-research.com/conferences/ies-usa-2018/)

## 10<sup>th</sup> Better Air Quality Conference

14-16 November 2018, Kuching, Malaysia

Info will be at <http://baqconference.org>

## 40<sup>th</sup> International Vienna Motor Symposium

16-17 May 2019, Vienna, Austria

Info will be at <https://wiener-motorensymposium.at>