

NEWSLETTER

International Regulatory Developments

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EUROPE

Meeting of the Advisory Group on Vehicle Emission Standards

On 24 February 2021, the European Commission's Advisory Group on Vehicle Emission Standards (AGVES) held its eighth meeting. The AGVES meeting was conducted in a virtual setup and was chaired by EU Commission DG Growth's Dr Penny Dilara. The full-day web meeting was devoted to stakeholder presentations.

AECC presented the latest results from light-duty and heavy-duty demonstrator programmes, showing ultra-low pollutant emissions over a range of driving conditions but also noting that challenges remain towards a combination of boundary conditions. AECC presented further Euro 7/VII position considerations, supporting an ambitious Euro 7/VII and suggesting a phased approach within one legislative package for the next decade.

AECC position on Euro 7/VII – additional considerations

- ➊ AECC supports overall Euro 7/VII ambition level to promote innovation and further R&D towards near-zero emission levels of ICE
 - ➊ Ambition beyond capabilities of catalyst and filter-based technologies at TRL 6-7 used in AECC demonstrator programmes
 - ➋ Extension of boundary conditions to a wide-range operation to minimize impact on urban air quality
- ➋ AECC suggests 1 legislative package for Euro 7&VII with a phased approach over next decade
 - ➊ Improve air quality as soon as possible in the highest impact areas for which TRL is at 6-7
 - ➋ Provide development outlook for technologies today at low TRL to fully cover wide-range operation
 - ➌ Fully defined before the entry into force date of the Euro 7&VII Regulation
 - ➍ Incentives for the introduction of more advanced technology by early adopters are welcomed

 AGVES meeting – 24 February 2021 18

ACEA presented general observations on Euro 7/VII and then specific views for passenger cars, light commercial vehicles and heavy-duty trucks and buses. ACEA said it had not come up with a detailed presentation of what is achievable for each pollutant and each boundary condition but wanted to focus on fundamental topics which create concerns and possible approaches. For light commercial vehicles, ACEA stressed these are not big cars and should not be subject to the same limits. For heavy-duty, ACEA gave input on how to change from a 'conformity-oriented' In-Service Conformity (ISC) to 'assessment-oriented' Real Driving Emissions (RDE) integrated approach.

CLEPA said that it supports a Euro 7/VII that improves air quality. It does not however consider CLOVE scenarios A/B to be feasible due to extension of boundary conditions. CLEPA proposed some options for feasible test regimes for light-duty and heavy-duty.

T&E gave an initial reaction to CLOVE scenarios presented last year. They can only support CLOVE scenario B as scenario A would be "too little, too late". They listed further shortcomings of CLOVE scenario B.

The next session of AGVES will be held on 8 April 2021. The EC said that stakeholders should only take note of what Euro 7/VII will look like once its proposal is published before the end of the year.

The AECC presentation given at the AGVES meeting is available at www.aecc.eu/wp-content/uploads/2021/02/210224-AECC-presentation-AGVES-final-v2.pdf.

JRC Third Report on Conformity Factors

On 22 February 2021, the Joint Research Centre (JRC) of the European Commission published its third report on conformity factors, which are used to assess compliance of vehicles with emission limits while performing a Real Driving Emissions (RDE) test.

The new report describes the outcome of a review by the JRC last year on the performance of portable emissions measurement system analysers, based on over 550 tests in on-going projects. It concludes that the NOx margin can be further reduced to 0.23 for the current generation of equipment. Currently the value set in Regulation (EU) 2017/1151 is 0.43. The JRC Report on Real Driving Emissions Regulation, released a year ago, had concluded that the margin could have been lowered to 0.32. The lower value of the margin indicates now that PEMS equipment measure better. Reductions of the permissible tolerances for example, maximum zero drift of 3 ppm instead of 5 ppm, and changes to the zero-drift method could further decrease the NOx margin in future to 0.1.

The JRC also recommends that the margin for particulate number (PN) can be reduced to 0.34 from the current 0.5. For further reductions of the PN margin, the report underlines that a more holistic approach is necessary, for example bringing closer technical and calibration specifications of the PN-PEMS and the reference PMP systems.

The press release says that this is the third time that the Commission reduces the conformity factors based on scientific evidence, with the objective to bring the conformity factor to zero. It also mentions that the Commission is working to create a 'predictable and realistic trajectory' to zero pollution vehicles to protect citizens' health and the environment and strengthen the competitiveness of the EU's automotive industry.

The JRC press release can be found at ec.europa.eu/jrc/en/news/clean-mobility-new-report-conformity-factors-real-driving-emissions.

Parliamentary Question and Answer on Euro 7 Regulation

On 16 February 2021, Mr Thierry Breton, European Commissioner for the Internal Market, answered a question from Mr Harald Vilimsky (ID, DE) on the subject of the planned Euro 7 Regulation.

Mr Vilimsky had asked if the Commission shared 'automobile industry fears that internal combustion engines will be eliminated as early as 2025' as a result of the Euro 7 introduction and therefore 'might destroy Germany's most powerful industrial sector'. He also asked whether the Commission is aware that 'the more stringent threshold values called for are in fact technically not feasible and are therefore not realistic'.

Mr Breton replied that the Commission's goal is to ensure that combustion engines operate with the best possible environmental performance. This will also help to regain the trust of citizens in an automotive industry that protects their health and the environment while strengthening its competitiveness.

Breton explained that to support this work, the Commission has commissioned two research projects to develop different scenarios. These scenarios will be further investigated in the context of the impact assessment that will be finalised in the second quarter of 2021. One public and two targeted consultations have already taken place. Stakeholders and Member States are also closely associated in the development of Euro 7 in the context of the Advisory Group on Vehicle Emissions Standards. The Commission will then be able to submit a legislative proposal taking into account health and environmental considerations as well as technical feasibility and costs.

Mr Vilimsky's question can be found at europarl.europa.eu/doceo/document/E-9-2020-006333_EN.pdf with the response from Mr Breton at https://www.europarl.europa.eu/doceo/document/E-9-2020-006333-ASW_EN.pdf.

Portuguese Presidency Priorities outlined to EP Committees

From 25-28 January 2021, ministers outlined the priorities of the Portuguese Presidency of the Council of the EU to parliamentary committees, in a series of meetings.

On 25 January, Environment and Climate Action Minister João Pedro Matos Fernandes told the Environment, Public Health and Food Security Committee that Portugal will promote the EU as a leader in Climate Action. The presidency is prioritising a green recovery and getting a deal on the EU Climate Law. MEPs raised questions on issues such as the EU Climate Law, biodiversity, the CAP reform, hydrogen, CO₂ emissions from shipping and the need for a green industrial strategy and green investments. They also stressed the importance of the upcoming UN climate change conference in Glasgow.

On 26 January, Infrastructure and Housing Minister Pedro Nuno Santos and Secretary of State for Tourism Rita Marques stressed that tourism and transport are two of the sectors hit hardest by the pandemic, which will also recover last from this crisis. The Presidency will strive to contribute to a swift recovery and transformation of the transport sector, to make it more resilient, greener and smarter. Transport Committee MEPs welcomed the Presidency's focus on sustainable mobility.

Details of these and other meetings are at europarl.europa.eu/news/en/portuguese-presidency-outlines-priorities-to-ep-committees.

AECC Videos on Emissions from Light- and Heavy-Duty Vehicles

On 15 and 24 February 2021, AECC launched two thought leadership videos showing how emissions from heavy-duty and

light-duty vehicles respectively are controlled in their daily operation with state-of-the-art emission control technologies.

The videos explain that a new Euro 7 emissions regulation for cars, vans, trucks and buses is ongoing, considering the stringency and testing measures required to ensure that new vehicles make a real contribution to the EU's zero-emission ambition by 2050.

AECC is closely following the discussions and provides input from its testing programmes, including its heavy-duty and gasoline demonstrator vehicles.

On the heavy-duty demonstrator vehicle, AECC has improved the integration of proven emission control technologies in a commercially feasible manner.

As a result, the AECC demo truck keeps regulated pollutants and also non-regulated emissions such as ammonia, nitrous oxide and ultra-fine particulates under control.



The AECC heavy-duty demo vehicle will also be tested with 100% renewable fuel, to show the potential CO₂ emissions reduction on a life cycle assessment basis.

The light-duty video explains that AECC and its project partners are developing a new gasoline demonstrator vehicle to achieve ultra-low pollutant levels under a wide range of driving conditions with a combination of catalysed components in close-coupled and underfloor positions.

Close-coupled components are key to reducing the initial time to heat up the exhaust system. Currently non-regulated emissions are also being measured in this programme.



The videos confirm that AECC and its members are fully committed to contributing to the European Commission's 2050 climate-neutral and zero-emission goals set out in the European Green Deal.

The videos can be viewed on AECC's web site aecc.eu and our YouTube channel [youtube.com/channel/UCbPS9op5ztLqrv6zIMH_IcQ](https://www.youtube.com/channel/UCbPS9op5ztLqrv6zIMH_IcQ).

AECC Response to Consultation on Revision of Car CO₂ Standards

On 5 February 2021, AECC replied to the Revision of the CO₂ emission standards for cars and vans public consultation questionnaire.

The Commission already held an open public consultation on increasing the 2030 climate ambition, which was open for 12 weeks from 31 March to 23 June 2020. Many high-level questions related to the increased climate ambition were asked in the context of that consultation. The present questionnaire focused on more specialised and detailed questions on the revision of the Regulation setting CO₂ Emissions Performance Standards for Cars and Vans in order to achieve the revised target.

AECC highlighted that all contributions to the reduction of the CO₂ emissions of cars and vans should get incentives, including the use of renewable fuels. A new definition is needed to go beyond tailpipe emissions. Zero- and Low Emissions Vehicles definition should include vehicles driven on renewable fuels. Incentives for renewable fuels will also ensure CO₂ reductions of the existing fleet which have a larger immediate impact. To incentivise technologies with the lowest carbon impact for the entire value chain, AECC calls for a holistic approach. CO₂ emissions from vehicles should be regulated on a Well-to-Wheel basis as soon as possible and ideally on a life-cycle basis in the long term.

AECC Response to Review of Directive on Energy Promotion from Renewables

On 8 February 2021, AECC replied to the consultation on the Review of Directive 2018 /2001/EU on the promotion of the use of energy from renewable sources.

On 17 September 2020, the Commission published its 2030 Climate Target Plan, which presents a new 2030 target of at least 55% net GHG emission reductions compared with 1990 levels on basis of a comprehensive impact assessment. Achieving at least 55% net GHG emissions reductions would require an accelerated clean energy transition with renewable energy seeing its share reaching 38% to 40% of gross final energy consumption by 2030.

The review of the so-called RED II is carried out in the context of the European Green Deal in which the Commission committed itself to review and propose to revise the relevant energy legislation by 2021.

AECC called for a revision of the RED II targets in line with the ambition of the EU Green Deal, especially to have an increased target for the amount of renewable fuel for transport.

AECC Response to Consultation on Action Plan Towards Zero Pollution

On 9 February 2021, AECC replied to the EU Action Plan "Towards a Zero Pollution Ambition for air, water and soil" public consultation.

The European Commission will adopt a Zero Pollution Action Plan to address the interlinked challenges of the different topics.

The purpose of the public consultation is to gather the views of Europeans on a range of issues that the Action Plan may address (including health and environmental affects, current and future policy, monitoring).

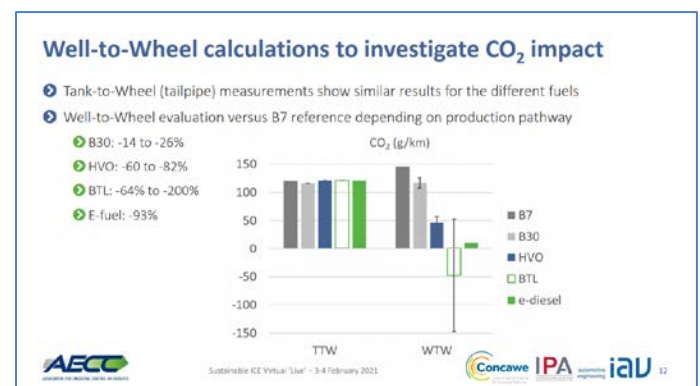
AECC's contribution stresses the need for a robust and focused Euro 7 to contribute to the objectives of the zero-pollution action plan.

AECC's comments can be found at aecc.eu/wp-content/uploads/2021/02/210209-AECC-comments-on-Zero-pollution-Action-Plan.pdf.

AECC Presentation to Sustainable ICE Conference

On 4 February 2021, as part of the Sustainable Internal Combustion Engine Symposium 'virtual live', AECC presented together with Concawe about *Advanced emission controls and renewable fuels for low pollutants and lifecycle CO₂ emissions* for light-duty diesel.

The presentation showed that low pollutant emissions over a wide range of driving conditions are possible with the use of advanced emission control systems. Significant Well-to-Wheel CO₂ reductions are possible with the use of renewable fuels. Part of this reduction is already possible for the existing fleet as most paraffinic compounds are drop-in for market diesel fuel, i.e., compatible with existing vehicles and infrastructure. AECC and Concawe concluded that the Internal Combustion Engine is one of the solutions to contribute to EU Green Deal climate-neutral and zero-emission goals, along with electrification.



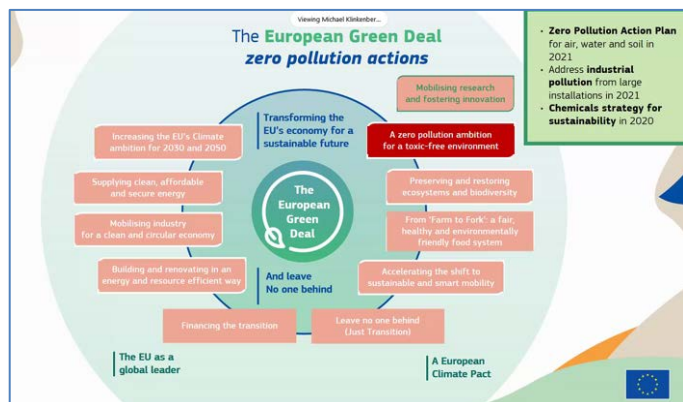
The AECC presentation is available at aecc.eu/wp-content/uploads/2021/02/210204-AECC-presentation-sustainable-ICE-conference-final.pdf.

European Commission Zero Pollution Workshop

On 10 February 2021, the European Commission DG Environment hosted a stakeholder workshop on the preparation of the Zero Pollution Action Plan for air, water and soil. There was a short introductory presentation from the EC, followed by presentations and positioning from the different stakeholders on this broad topic, particularly environmental NGOs.

Ms Veronica Manfredi (DG Environment) noted the workshop was the result of a year's work from around 20 EC departments. Mr Michael Klinkenberg, also from DG Environment, said that the action plan communication will be published in Q2 2021 and that the theme of this year's Green Week (31 May – 4 June) will be Zero Pollution. The EC would like to shift from 'eliminate and remediate' pollution towards 'prevent by design' pollution, and during production. Mr Klinkenberg stressed that significant work is needed on strengthening implementation and enforcement.

Daimler commented that a truly integrated approach is needed. It was pointed out that very strict Euro standards are already in place and air quality has improved and that with the European Green Deal there is a push for zero emission vehicles, but there is also a need for infrastructure. Consumer information is very important, and the approach needs to be pragmatic and balanced.



Transport & Environment highlighted that innovative solutions can work hand in hand. There are a lot of good solutions coming forward, but it is not enough to rely on innovation and good practices but also on good regulation. Vehicle CO₂ standards are fundamental for the transition.

The presentation is available at ec.europa.eu/environment/events/stakeholder-workshop-zero-pollution-action-plan-air-water-and-soil_en.

European Court of Justice Ruling on Hungary Air Quality Infringement

On 3 February 2021, the Court of Justice of the European Union (CJEU) ruled that Hungary has failed to fulfil its obligations to ensure throughout its territory, first, that the daily limit value for particulate matter PM₁₀ was complied with and, second, that the period of exceedance of that value was kept as short as possible.

The European Commission had criticised Hungary for 'systematically and persistently' exceeding the daily limit value for PM₁₀, from 1 January 2005 in the Budapest region and in the Sajó valley, and from 11 June 2011 (with the exception of 2014) in the Pécs region, doing so up to and including 2017 in the three zones concerned. In addition, the Commission asked the Court to find that there was a failure to fulfil obligations from 11 June 2010, in so far as Hungary failed to comply with its obligation to ensure that the period of exceedance of the limit value in question was kept as short as possible.

The Court found that Hungary did adopt air quality plans and various measures aimed at improving air quality. It ruled that nevertheless, those plans do not provide precise indications concerning the improvement of air quality planned and the expected time required to attain the objectives pursued. Moreover, the measures in question do not mention the date by which compliance with the daily limit value for PM₁₀ would be achieved in the zones concerned, and sometimes specify an implementation period that could extend over several years following the entry into force of the limit values for PM₁₀.

Consequently, the Court stated that Hungary manifestly failed to adopt in good time appropriate measures to ensure that the period of exceedance of the limit values for particulate matter PM₁₀ was kept as short as possible in the zones concerned.

The ruling of the CJEU can be read in full at curia.europa.eu/jcms/upload/docs/application/pdf/2021-02/cp210012en.pdf.

Referral of Slovakia to European Court of Justice over Poor Air Quality

On 18 February 2021, the European Commission has decided today to refer Slovakia to the European Court of Justice over poor air quality due to high levels of particulate matter (PM₁₀).

The Commission says that Slovakia has not respected the daily limit values for PM₁₀ concentrations, which have been legally binding since 2005. Data provided by Slovakia confirms systematic exceedances of the daily limit values for PM₁₀ in the air quality zone Banskobystrický kraj over the period 2005-2019 (except for 2016) and in the agglomeration Košice over the period 2005-2019 (except for 2015 and 2016).

The EC states that air quality measures presented by Slovakia have not proven to be timely and effective to reduce pollution within the agreed limits and they do not contribute to keeping the exceedance periods as short as possible, as required by EU law. It concludes that Slovakia has therefore not taken adequate measures for the reduction of the PM₁₀ concentrations in the air quality zone Banskobystrický kraj, the agglomeration Košice and the air quality zone Košický kraj.

The Commission press release can be found at ec.europa.eu/commission/presscorner/detail/en/IP_21_411.

ENVI and TRAN Committees' Reports on Environment Action Programme

On 3 February 2021, the Environment (ENVI) Committee of the European Parliament published a draft report on the proposed General Union Environment Action Programme to 2030.

The European Commission published its proposal for a General Union Environment Action Programme to 2030 (8th EAP) in 2020. ENVI says that it is imperative that the long-term priority objective of the 8th EAP - to live well within the planetary boundaries - is achieved as soon as possible and by 2050 at the very latest, and that, likewise, the thematic priority objectives are achieved by 2030 at the very latest. The EU must take bold action starting immediately, with the European Green Deal (EGD) and Sustainable Development Goals (SDGs) as a foundation.

The draft report states that the 8th EAP should be an ambitious high-level strategic tool to guide the EU's environmental policy to 2030, encompassing the actions and targets of the EGD and the SDGs while robustly monitoring progress to their achievement. The rapporteur makes it explicit that the actions and targets of the EGD fall under the 8th EAP.

The report goes on to say that, given that the well-being and prosperity of our societies and economies depend on a stable climate, a healthy environment and thriving ecosystems, the rapporteur proposes a shift towards a sustainable well-being economy founded on the SDGs. This replaces the Commission's proposal for a regenerative growth model. A sustainable well-being economy, which is already being implemented in some countries, considers that public interests should determine economics rather than the other way around. The rapporteur proposes the establishment of a new EU set of indicators used to measure progress 'beyond GDP'.

The enabling conditions and actions proposed in this draft report predominantly relate to how the EU makes, evaluates, implements and enforces laws. In this regard, the rapporteur believes a "think sustainability first" approach should guide EU law-making and maps out how to achieve this in the new list of concrete actions.

In order to ensure that the next Commission takes ownership of the 8th EAP, the rapporteur proposes a mid-term review in 2024 to take stock of the progress made so far. This is complemented by a call on the next Commission to present the environment and climate actions it will carry out to 2030 in order to ensure the full achievement of the 8th EAP's priority objectives by that date.

The draft report is available to read at europarl.europa.eu/doceo/document/ENVI-PR-680827_EN.pdf.

The Transport (TRAN) Committee Draft Opinion, published on 1 February 2021, welcomes the proposal to mainstream sustainability in all relevant initiatives and projects at national and EU level. It also supports the involvement of the European Environment Agency (EEA) and the European Chemicals Agency (ECHA) as of outmost importance in supporting the new

monitoring, measuring and reporting of this Programme and to achieve the objectives of 8th EAP.

The rapporteur believes that all transport modes have to contribute to the reduction of all kind of emissions. Achieving sustainable transport means putting users first and providing them with more affordable, accessible and cleaner alternatives to their current mobility habits ensuring a fair and just transition that leaves no one behind. The draft opinion says that the EU should in parallel ramp-up the production and deployment of sustainable alternative transport fuels and zero-emission vehicles.

The TRAN Draft Opinion can be found at europarl.europa.eu/doceo/document/TRAN-PA-661992_EN.pdf.

JRC 2019 Market Surveillance Report

The European Commission's Joint Research Centre (JRC) has published a report about its 2019 pilot study on market surveillance of light-duty vehicles. Environmental pollutant emissions performances and CO₂ emissions of 35 Euro 6d-TEMP and Euro 6d vehicles are presented together with a new methodology for compliance checks.

The report states that the levels of NO_x emissions obtained on the road over RDE compliant tests were generally in line with those measured in the laboratory. NO_x emissions in this study were always below the limits defined for laboratory tests. Even if these results depend on the actual road-testing conditions, the fact that emissions levels were below the limits is an encouraging sign, demonstrating the effect of the new RDE and WLTP provisions upon the real-world environmental performance of light-duty vehicles, in particular for the diesel vehicles.

The same findings and conclusions apply, to a large extent, to the CO on-road emissions. Other than three vehicles which exceeded the CO laboratory limit, all the gasoline, hybrid and diesel vehicles emitted CO emissions below the laboratory limit.

Concerning the particle emissions (PN), the on-road emissions from gasoline direct injection (GDI) vehicles were almost identical to those from diesel vehicles. In contrast to this, substantial PN emissions remained associated with port-fuel injection (PFI) gasoline vehicles.

Finally, CO₂ emissions from Euro 6d-TEMP and Euro 6d vehicles measured in the laboratory were slightly lower (4-5%) than the declared WLTP values. These deviations were however greater on the road, with average values up to 20% higher than the declared WLTP values. This was particularly evident over the urban parts of the RDE tests, likely attributed to the effect of the PEMS equipment (mainly the additional mass on the vehicle) or to the use of heating or air conditioning systems.

The report is available at publications.jrc.ec.europa.eu/repository/handle/JRC122035.

Committee of the Regions Opinion on Environment Action Programme

On 5 February 2021, the European Committee of the Regions (CoR) put forward its opinion on the 8th Environment Action Plan (EAP).

The CoR states that traditional, sectoral environmental policy is largely ineffective and calls for a move to an integrated policy making to 'create synergies and avoid mismatches'. CoR members propose to adopt a healthy living for all approach for all EU policies promoting human health, and a healthy planet, economy and society with opportunities for all.

It says that the 8th Environment Action Programme cannot be sufficiently achieved by Member States alone. Local and regional governments hold competencies in key environment areas and their full involvement is crucial in designing and implementing environmental policies but also in engaging with citizens, businesses, research centres, academia and local stakeholders.

The CoR regrets that the 8th EAP includes no reference to the Technical Platform for Cooperation on the Environment, a forum set up in 2012 between the EC and the CoR aimed at fostering dialogue on local and regional problems and solutions in the application of EU environment law.

Local and regional leaders call for the full integration of environment, climate and circular economy policies into the budgetary, economic and social actions of the EU including those that fall under the COVID-19 recovery plan.

The CoR press release on the 8th EAP is at cor.europa.eu/en/news/Pages/the-2030-environmental-action-programme.aspx.

UBA Review of German Cities' Compliance with Air Quality Standards

On 16 February 2021, the German Umweltbundesamt or Environment Agency (UBA) published a review of compliance with the European Air Quality Directives in German cities. This is based on preliminary evaluation of the measurement data from the federal states and the UBA (as of February 1, 2021) from around 400 measuring stations so far. Whereas 25 cities were affected by the exceedance of the NO₂ limit value in 2019, UBA says that there will be significantly fewer than ten in 2020.

Mr Dirk Messner, President of the UBA, commented that "The fact that newly registered diesel cars have only recently been complying with the limit values on the road is the main reason for the ten-year misery".

Modelling by the UBA shows that software updates and fleet renewals in 2020 together resulted in a reduction of around three micrograms of NO₂ per cubic metre. Around two thirds of this can be traced back to the new, significantly cleaner vehicles, and one third to the software updates. Mr Messner added that "If all vehicles on German roads had complied with the exhaust emission limit values in real operation, there would have been no more

violations in 2020. It is also regrettable that software updates took so long and that there were hardly any hardware upgrades".

In addition to direct improvements to the vehicles, the mean NO₂ concentrations at measuring stations close to traffic fell on average by another microgram due to local measures such as speed limits and driving bans as well as the use of low-emission buses, meteorological influences that favour or worsen the spread of air pollutants, and to a small extent also the measures to contain the corona pandemic.

The NO₂ concentrations measured at measuring stations close to traffic in cities fell by an average of 20 to 30% during the period of the corona lockdown in spring 2020. Since the decrease in traffic due to the lockdown was mainly limited to a period of four weeks, the influence on the annual mean NO₂ values is small and the associated decrease should be around one microgram NO₂ per cubic meter of air or less.

2020 was the year with the least amount of fine particulate since measurements began in the late 1990s. The limit values for PM₁₀ and PM_{2.5} were complied with throughout Germany. However, the WHO annual mean recommendation of 20 micrograms per cubic metre was not complied with in 2020 at around 4% (2019: 13%) of all measuring stations.

UBA says that the measures to contain the corona pandemic only had a minor impact on fine particle concentrations, since road traffic makes a far less contribution to particulate pollution than nitrogen oxides.

The UBA press release is available (in German) at umweltbundesamt.de/presse/pressemitteilungen/luftqualitaet-2020-nur-noch-wenige-staedte-ueber.

10th High Level EU Refining Forum

On 18 February 2021, the 10th high level EU Refining Forum was held as a web meeting. More than 140 people attended the workshop. European Commission's Director-General for Energy Ms Christina Lobillo welcomed the participants.

Ms Kadri Simson, Commissioner for Energy, gave a keynote speech. She noted that transport fuels will be a mix of electricity, hydrogen and biofuels. 2050 will be very different from what we know today. The EC will look for the regulatory side and the investment side. On the regulatory side, the next big step will be the 'Fit for 55' package. The climate legislations will be aligned with the future ambitions: the ETS will be revised, Euro 7 will be introduced, AFID will be revised to low-carbon energy for transport and the revision of the RED will be done and might come with incentives for industry sectors to take up renewable fuels. The overarching framework will be the European Green Deal. She added that investments will focus on buildings, transport and the power sector. All these initiatives align with the EC's vision for the future. The EC welcomes the industry's 'Clean Fuels for All' initiative.

Mr Béla Kelemen, FuelsEurope President, thanked the Commission for organising and the commissioner for the keynote. He noted that the oil industry has started a major transformation, not a simple transition. The industry is strongly committed to the climate ambitions. International, global action is needed in addition to energy transition in Europe. Liquid fuels are needed for the daily life and as the best way to store energy. Fossil carbon emissions have to be reduced to zero in 2050. The origin of fuel is the problem, not the liquid fuel as such. Not all applications can be replaced by batteries. Liquid fuels will have to be maintained but in a low-carbon form. He said that CO₂ is a source of renewable carbon and also pointed out that the Concawe website is informing on initiatives and projects. An evolution of today's policies is needed to make the transition work. The renewable and low-carbon fuels alliance the EC is looking to set up is recognised and this is needed. Mr Kelemen concluded that renewable fuels needs to be a separate initiative from the Commission and he invited all to the dialogue.

A first roundtable discussed the European Green Deal and industry, the EU industrial strategy and Recovery, and the Climate Plan. Ms Cristina Lobillo Borrero (DG ENER – Director, Energy policy) presented a short introduction. MEP Ms Anna-Michelle Asimakopoulou, INTA Committee Vice-President and author of an own initiative report on the EU industrial strategy, noted that the EU should facilitate investments in low-carbon fuels. Ms Fulvia Raffaelli, Head of Unit at DG GROW, presented on the industrial strategy in the context of the recovery plan and the transformation of industry to low and carbon-neutral operation. Ms Ewelina Jelenkowska from DG ENER then presented the impacts of the Climate Target Plan for investments, competitiveness and industry. She said that decarbonisation of the energy system is a priority. Ms Judith Kirton-Darling, Deputy General Secretary of IndustriAll, discussed “a socially just transition”.

A second roundtable was about fuels for climate neutrality – the renewable and low carbon fuel value chain with a focus on the 2030 targets and 2050 outlook.

Ms Catharina Sikow-Magny, director, Green transition and energy system integration at DG ENER, gave a short introduction. Mr Andrea Zucker of DG ENER presented on “fuels related issues in the Climate Target Plan, including the role of hydrogen”. He described the drivers for future fuel mix changes e.g., a significant increase in transport renewables. Mr Herald Ruijters, Director DG MOVE, discussed “the transport sector and the smart mobility strategy”. Mr Henrik Henriksson, President and CEO of Scania, presented “the heavy-duty truck industry point of view”. He looks forward to a cooperation with policy makers on the alternative fuels infrastructure, the renewable energy directive REDII, CO₂ standards, eurovignette, emission trading schemes and energy taxation. Ms Marta Yugo, Science Executive at Concawe, presented “The refining industry strategy in the EU: Clean fuels for all”. Ms Berta Cabello of Repsol presented strategic pathways for refining transformation. Mr Harro Van De Rhee (ExxonMobil) discussed the “H-vision project, R&I investment in the refining sector”.

In the closing session, John Cooper, FuelsEurope's director general, thanked all for the support. He said the industry will deliver to Europe's objectives. He presented an overview on all themes covered and an attempt to interlink them. The industry supplies resilience on energy to the EU. The industry knows petroleum use has to be reduced to near-zero in 2050. The industry has started its transformation but from a transport policy perspective, there should be fair competition between all renewable sources. The creation of a renewable and low-carbon fuels alliance is welcomed. Renewables should also be supported for on-road transport use. The role of long-term contracts is important. The reviews of the REDII and vehicle legislation will play a major role. He concluded with some thoughts on European strategy and called for a more holistic EU strategy for liquids, linking to hydrogen and other strategies, and focusing on renewables. He called for a realistic decline in the fossil fuel sector. Many jobs and communities are relying on employment within and linked to the fuel industry. The European Commission's Brendan Devlin thanked all for their participation and interest in the topics. He said the issues raised are taken seriously and summarised the main items raised in John Cooper's concluding speech.

The presentations of the refining forum are at ec.europa.eu/info/events/10th-high-level-meeting-eu-refining-forum-2021-feb-18_en.

Establishment of European Agencies

On 15 February 2021, Commission Implementing Decision (EU) 2021/173 was published in the Official Journal of the European Union. This establishes several agencies, including the European Climate, Infrastructure and Environment Executive Agency, which replaces the Innovation and Networks Executive Agency.

The purpose of entrusting the executive agencies with programme implementation tasks is to enable the Commission to focus on its core activities and functions which cannot be outsourced, without relinquishing control over, and ultimate responsibility for, activities managed by those executive agencies. The document says that the delegation of tasks related to programme implementation to an executive agency requires a clear separation between the programming stage, which involves a large measure of discretion in making choices driven by policy considerations, and which is therefore carried out by the Commission, and programme implementation, which the Commission can entrust to an executive agency.

The European Climate, Infrastructure and Environment Executive Agency is entrusted with a portfolio that gives it a clear focus as a climate and environment agency, that is to say the LIFE programme, the Innovation Fund, infrastructure activities under Connecting Europe Facility (CEF) Transport and CEF Energy, the Horizon Europe cluster 5 related to climate, energy and mobility, the public sector loan facility under the Just Transition Mechanism, and the European Maritime, Fisheries and Aquaculture Fund.

It will also take care of the implementation of the legacy of various projects, including aspects of Horizon 2020: Part III covering secure, clean and efficient energy, smart, green and integrated transport and climate action, environment, resource efficiency and raw materials.

The new European Climate, Infrastructure and Environment Executive agency is established from 1 April 2021 until 31 December 2028. The full text of the Implementing Decision is at eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2021.050.01.0009.01.

ENVI Committee Amendments to Resolution on Implementation Report

On 16 February 2021, the Environment (ENVI) Committee of the European Parliament published proposed amendments to a draft resolution on the recent report (see AECC Newsletter of January 2021) on Implementation of The Ambient Air Quality Directives.

Proposals cover the range of pollutants to be included, aligning standards with WHO guidelines, enforcement, and measurement.

The document containing 231 amendments is at europarl.europa.eu/doceo/document/ENVI-AM-680992_EN.pdf.

EP Think Tank Briefing on EU Hydrogen Policy

On 19 February 2021, the European Parliament Think Tank published a briefing on EU hydrogen policy and the use of hydrogen as an energy carrier for a climate-neutral economy.

The document says that hydrogen is expected to play a key role in a future climate-neutral economy, enabling emission-free transport, heating and industrial processes as well as inter-seasonal energy storage. Clean hydrogen produced with renewable electricity is a zero-emission energy carrier but is not yet as cost-competitive as hydrogen produced from natural gas. The briefing says that a number of studies show that an EU energy system having a significant proportion of hydrogen and renewable gases would be more cost-effective than one relying on extensive electrification.

The report states that almost all EU Member States recognise the important role of hydrogen in their national energy and climate plans for the 2021-2030 period. About half have explicit hydrogen-related objectives, focused primarily on transport and industry.

The Think Tank says that batteries are a suitable technology for light-duty road vehicles or urban buses, but their lower energy density, compared to fossil fuels, limits their use for long-distance road transport, shipping or aviation. Clean hydrogen is a promising fuel for transport applications because it offers a higher driving range than batteries and quick refuelling. Hydrogen fuel cell vehicles convert hydrogen to electricity to power their engines. To support wider adoption, the current network of 144 hydrogen refuelling stations in Europe would need to grow considerably.

In the European Parliament, the Committee on Industry, Research and Energy (ITRE) is preparing an own-initiative report on the EU

Hydrogen strategy. The Council adopted conclusions on the EU hydrogen market in December 2020, with a focus on renewable hydrogen for decarbonisation, recovery and competitiveness.

The briefing can be found at [europarl.europa.eu/RegData/etudes/BRIE/2021/689332/EPRS_BRI\(2021\)689332_EN.pdf](http://europarl.europa.eu/RegData/etudes/BRIE/2021/689332/EPRS_BRI(2021)689332_EN.pdf).

NORTH AMERICA

California Zero-Emission Vehicle Market Development Strategy

On 1 February 2021, The California Governor's Office of Business and Economic Development (GO-Biz) announced the publication of the Zero-Emission Vehicle Market Development Strategy (ZEV Strategy). This follows the Executive Order signed by Governor Newsom in September 2020, which sets state-wide targets to transition California's transportation sector to zero emissions to reduce carbon and toxic pollution, while retaining and creating jobs and growing the economy.

The Strategy is centred around the four market pillars: vehicles, infrastructure, end users, and workforce. The pillars must all be fully supported and are built upon a foundation of five core principles: equity in every decision, embracing all zero-emission pathways, collective problem-solving, public actions drive greater private investment, and designing for system resilience and adaptability.

The Strategy will be updated at least every three years and each state agency will submit a brief action plan annually, starting on 1 March 2021, setting the agency's priorities according to their objectives.

The strategy document can be found at static.business.ca.gov/wp-content/uploads/2021/02/ZEV_Strategy_Feb2021.pdf.

SOUTH & CENTRAL AMERICA

ICCT Report on Diesel Vehicle Emissions in Mexico

On 16 February 2021, the International Council on Clean Transportation (ICCT) published a report on diesel vehicle emissions in Mexico, presenting information on the sources and types of emissions from diesel vehicles, how these emissions cause health problems, and what public policies can be implemented to reduce them.

ICCT says that the most important measure against pollution caused by transport is NOM-044, which limits emissions from diesel vehicles and was published in 2018 after 'arduous negotiations' with manufacturers. The last phase of this regulation establishes world-class limits for the sale of vehicles in Mexico with the same technologies that have been sold in the United States and Europe for more than ten years. Now, the implementation of this last phase has been delayed for a year (see AECC Newsletter of September 2020) and there is a risk that it will be postponed indefinitely. These delays mean that their emissions will continue

to increase, along with health impacts in the next 20 years, which is the average useful life of these vehicles.

The ‘fact sheet’ highlights sources of emissions, albeit using quite old data, as well as showing the potential impact of introducing NOM-044.

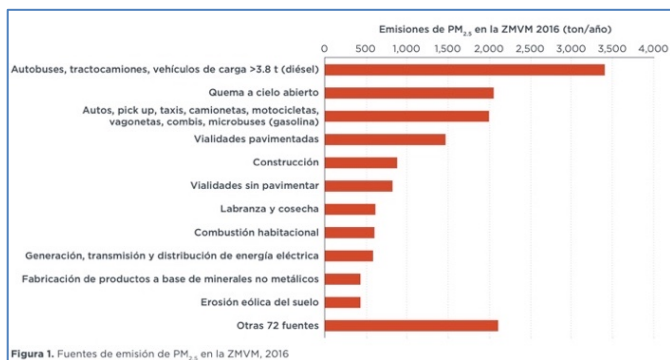


Figura 1. Fuentes de emisión de PM_{2.5} en la ZMVM, 2016

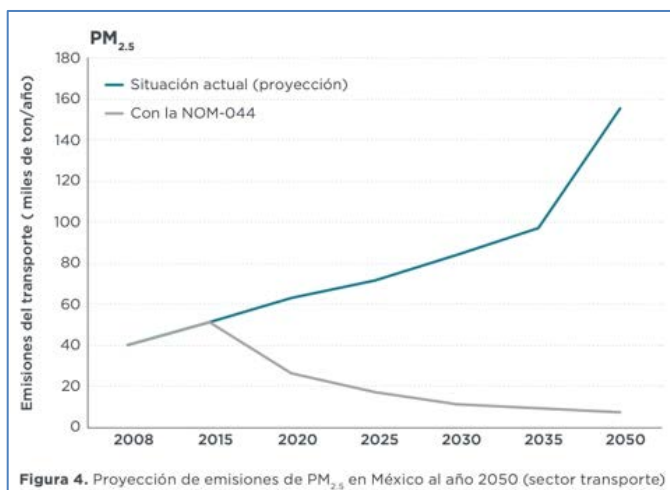


Figura 4. Proyección de emisiones de PM_{2.5} en México al año 2050 (sector transporte)

The document (in Spanish) can be downloaded from theicct.org/publications/mexico-hdv-fs-feb2021.

ASIA PACIFIC

Measures to tackle Air Pollution in India

On 1 February 2021, the Indian Minister of Finance Ms Nirmala Sitharaman announced the country’s budget for 2021/22.

In the budget she announced measures to reduce air pollution, including a voluntary vehicle scrapping policy to phase out old and unfit vehicles. This is intended to help in encouraging fuel-efficient, environmentally friendly vehicles, thereby reducing vehicular pollution and oil import bill. Vehicles would undergo fitness tests in automated fitness centres after 20 years in case of personal vehicles, and after 15 years in case of commercial vehicles.

The budget speech in full is at indiabudget.gov.in/doc/Budget_Speech.pdf.

UNITED NATIONS

Publication of UNECE WLTP Regulation

On 4 February 2021, the United Nations Economic Commission for Europe (UNECE) published Regulation No. 154 regarding uniform provisions concerning the approval of light duty passenger and commercial vehicles with regards to criteria emissions, emissions of carbon dioxide and fuel consumption and/or the measurement of electric energy consumption and electric range (WLTP).

The intention of the Regulation is to establish uniform provisions concerning the approval of motor vehicles with regard to the emissions of light-duty vehicles based on the new World harmonized Light vehicle Test Procedure (WLTP) included in UN GTR No. 15 and the updated Evaporative Emissions test procedure (Type 4 test) which has been developed in UN GTR No. 19. It will enable Contracting Parties (CPs) to issue and accept approvals based on these new type approval tests.

The WLTP Type 1 test replaces both the current Type 1 test in UN Regulation No. 83 and UN Regulation No. 101, whilst the updated Evaporative Emissions test procedure (Type 4 test) replaces that currently in UN Regulation No 83.

In addition, this new Regulation includes an update to the Type 5 test for verifying the durability of pollution control devices and updated On-Board Diagnostic (OBD) requirements. These updates are in order to reflect the changes from the previous NEDC based Type 1 test to the new WLTP Type 1 test.

The 00 series of the Regulation covers two sets of requirements – termed Level 1A and Level 1B. Level 1A is based on a four-phase test cycle (Low, Medium, High and Extra High), whilst Level 1B is based on a three phase test cycle (Low, Medium and High), with different type 1 limits applying to these different levels. The majority of the regulatory text is applicable to both Level 1A and Level 1B.

The 01 series of the Regulation includes a harmonised procedure which contains the most stringent procedures/limits which shall be subject to full mutual recognition. A type approval to the 01 series shall therefore be accepted by all CPs having adopted this Regulation.

The full text of the Regulation is available at unece.org/sites/default/files/2021-02/R154e.pdf.

UNEP Report on tackling Climate, Biodiversity and Pollution Emergencies

On 18 February 2021, the United Nations Environment Programme published a report titled Making Peace with Nature: A scientific blueprint to tackle the climate, biodiversity and pollution emergencies.

UNEP says that the report communicates how climate change, biodiversity loss and pollution can be tackled jointly within the framework of the Sustainable Development Goals. The report serves to ‘translate the current state of scientific knowledge into

crisp, clear and digestible facts-based messages that the world can relate to and follow up on’.

With respect to air pollution, the report discusses the relationship between it and climate change and says that efforts to reduce carbon dioxide emissions from the use of fossil fuels also reduces local air pollution. Conversely, efforts to reduce local air pollution, such as from black carbon (soot), and ground-level ozone and its precursors, can also contribute to mitigating climate change.

The report concludes with lists of actions that need to be taken by organisations and individuals at all levels in order to address the challenges. It refers in particular to the need to cut CO₂ emissions by 45% by 2030 compared with 2010 and achieve net-zero carbon by 2050.

The UNEP report can be downloaded from [unep.org/resources/making-peace-nature](https://www.unep.org/resources/making-peace-nature).

GENERAL

Automotive Regulatory Guide

On 1 February 2021, the European Automobile Manufacturers’ Association (ACEA) published the first edition of The Automotive Regulatory Guide. ACEA says that this is a unique publication that provides a comprehensive overview of the national and international regulations governing the automotive industry.

This first edition covers the regulatory frameworks of the European Union (EU), United Nations Economic Commission for Europe (UNECE), Gulf Cooperation Council (GCC) and the Association of Southeast Asian Nations (ASEAN), as well as countries such as Brazil, China, India, South Korea, Japan, Taiwan and Israel.

Item	Subject	Regulatory Act	Applicability to spare parts
Safety – external, internal, active safety, operation, occupant protection	Title or short description of regulation / topic	Relevant regulation(s) / legal reference(s)	Yes: regulation applicable to type-approval and spare parts No: regulation applicable to type-approval only Empty cell: no clear statement available, needs to be checked
Environment – engine power, fuel consumption, substances, emissions			
Technical – technical requirements for vehicles, components and separate technical units			
Mixed – diverse requirements, other categories			
Aftersales – relevant for aftersales only			

ACEA points out that the European automotive industry is one of the most heavily regulated sectors in Europe with more than 100 EU Regulations and 80 Directives covering the sector’s activities. It says that smarter, rather than simply more, legislation, is needed.

The guide can be found at

acea.be/uploads/publications/ACEA_Regulatory_Guide_2021.pdf.

RESEARCH SUMMARY

Effects of Emissions and Pollution

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Enormous enhancement of Pt/SnO₂ sensors response and selectivity by their reduction, to CO in automotive exhaust gas pollutants including CO, NOx and C₃H₈, Hadis Mousavi, et al.; *Applied Surface Science* (April 2021), Vol. 546, 149120, [doi: 10.1016/j.apsusc.2021.149120](https://doi.org/10.1016/j.apsusc.2021.149120).

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FORTHCOMING CONFERENCES

11th VERT Forum

25 March 2021, online

vert-dpf.eu/j3/index.php/start-page/events

International Transport and Air Pollution Conference

30 March-1 April 2021 (postponed from September 2020), online

tapconference.org

The main topics of the 24th TAP Conference include energy consumption and GHG emissions from vehicles, open issues for pollutant emissions, such as tampering, retrofits of software and hardware and non-regulated pollutants, emissions from non-road mobile machinery and other transport modes and measurements and simulation of traffic related environmental impacts and air quality.

SAE WCX Digital Summit

13-15 April 2021, online

sae.org/attend/wcx

9th AVL Large Engines Techdays

21-22 April 2021, online

avl.com/large-engines-techdays

42nd International Vienna Motor Symposium

28-30 April 2021, Vienna, Austria

wiener-motorensymposium.at/en

CLEPA Materials Regulations Event

4-5 May 2021, Online

clepa.eu/events/clepa-materials-regulations-event-2021

Hydrogen and P2X European Conference

16-17 June 2021, Copenhagen, Denmark (postponed from February 2021)

fortesmedia.com/hydrogen-p2x-2020,4,en,2,1,4.html

8th International MinNOx Conference

16-17 June 2021, Berlin, Germany (postponed from September 2020)

iav.com/en/events/minnox

ICE 2021 - 15th International Conference on Engines & Vehicles

12-16 September 2021, Naples, Italy

drive.google.com/file/d/1ZXsA9F8f8OP_2gOesDhLCC_4PzEsAem/view

SAE Powertrains, Fuels & Lubricants Digital Summit

28-30 September 2021, Online

sae.org/attend/virtual-events/pfl

30th Aachen Colloquium Sustainable Mobility

4-6 October 2021, Aachen, Germany

aachener-kolloquium.de/en/?idU=1

SAE Heavy-Duty Diesel Emissions Control Symposium

5-6 October 2021, Gothenburg, Sweden (postponed from October 2020)

sae.org/attend/heavy-duty-diesel-emissions-control-symposium

Powertrain Systems for Net-Zero Transport

7-8 December 2021, London, UK

events.imeche.org/ViewEvent?code=CON7242

CITA International Conference

1-2 June 2022, Amsterdam, Netherlands

citainsp.org/cita-conferences