

Synthetic fuels have been seriously misrepresented by T&E, with incomplete and confused analysis of good scientific work.

Brussels, 9 December 2021: T&E campaigners presented at a webinar the results of their report *“Magic green fuels: Why synthetic fuels in cars will not solve Europe’s pollution problems?”* based on an IFPEN study. Building on Concawe’s thorough scientific analysis of the report, FuelsEurope regrets the approach taken by T&E to cherry-pick some results and put them out of context which unsurprisingly leads to flawed conclusions. Concawe’s science-based analysis of the IFPEN report shows instead that the performance of synthetic fuels is in fact at least 50% below the current Euro 6d limits and already complies with the most stringent limits proposed by the CLOVE consortium for Euro 7.

Contrary to the conclusions made by T&E campaigners, the latest IFPEN study for T&E clearly shows that the use of synthetic fuels in cars result in a dramatic reduction in CO₂ emissions and no significant effect on pollutants emissions versus fossil fuels.

The Euro 6d vehicle tested by T&E shows very low emissions, at least 50% below the current Euro 6d limits (and up to 500 times lower). On all the measurements revealed in T&E’s presentation, the vehicle already complied with the most stringent limits proposed by the CLOVE consortium for Euro 7. All these results were obtained either with e-petrol or fossil gasoline.

Concawe’s review of the fuels used for the study highlighted that the so-called “e-petrol” evaluated by T&E are in fact out-of-specs petroleum fuels, and the tested “e-petrols” are out of specifications (EN228), a fact omitted by T&E. John Cooper, Director General FuelsEurope, stated *“while it is perfectly fine to test out-of-spec fuels for a science purpose, as Concawe regularly does, extrapolating the results, potentially for a legislative purpose, without the context that T&E failed to mention, is scientifically unacceptable.”*

Concawe also analysed the emissions from a number of pollutants measured by T&E in its report, including NO_x, CO, HC (unburnt hydrocarbons), PN (particulates number) and NH₃ (ammonia). John Cooper explained *“the measured emission levels contained in the IFPEN report show that all the above pollutants achieve dramatic reductions between 40 and 95% below the emission levels set by Euro 6d and even the stringent Euro 7 proposed limits.”* He added *“these results are very much in line with the findings from 3 studies conducted by Concawe on emissions and published in peer-reviewed papers. And contrary to T&E’s repeated reference in its report to a Concawe study, I wish to make it clear that Concawe*

never performed any study using e-diesel. Also for what is the closest representative of Fischer-Tropsch e-diesel, which was in fact a 100% renewable HVO, Concawe never concluded that the particles emissions could increase, and the collected experimental data certainly does not support such a statement. I urge T&E to stop referring to our studies in a misleading way.”

T&E made the statement that the emission control systems have their efficiency reduced over time, as the vehicle ages. Whilst this is true, critical context is missing: ISC (In-service conformity), MaS (Market Surveillance) and Periodic Technical Inspection (PTI), along with On-Board Diagnostic (OBD) ensure that vehicles maintain their low emission levels for their entire useful life. These are all mandatory features of Euro 6d standards.

John Cooper furthermore stated *“Euro 6d has been a great success for the regulator, for carmakers, customers and the environment. Cost effective ultra-low emission vehicles of many types are available to customers, requiring no subsidies from governments to maintain the much needed fleet turnover. A pragmatic Euro 7 will take this further. And, of course, the world is already benefiting from Europe’s leadership in developing these technologies.”*

On the climate performance of synthetic fuels, T&E suggested in its presentation that BEVs are the only zero-emissions vehicles. However, according to them, an average gasoline car running on e-petrol emits 7-9 kg of CO₂eq a year. John Cooper indicated *“on average, annual distance travelled by cars driven by users living in urban areas in the EU is of 7,500km per year, which means that a gasoline car fuelled with e-petrol emits on average 3gCO₂/km. We all agree that 100% climate neutral vehicles don’t exist but this performance (3gCO₂/km) compared to the current average European electricity carbon footprint shows how good synthetic fuels can be for contributing to climate neutrality. Moreover, according to the T&E report, if we compare the e-petrol emissions with those resulting from the current production of a 30kWh battery, approx. 3000 kg of CO₂eq, i.e. 200 kg of CO₂ a year during a 15-year ownership, the e-petrol emits, on annual basis, 20 times less than the CO₂ emitted by the production of the battery”*

John Cooper added *“E-fuels can compete with BEVs on their life-cycle CO₂ emissions. Electrification will, and should be a major part, probably the major part of the decarbonisation of road transport. But it is now equally clear that low-carbon liquid fuels technology can be competitive on GHG and urban air quality grounds.”*

Regarding the impact on air quality, Concawe’s modelling and test studies have demonstrated that a key component to improving air quality in urban areas requires targeted measures, e.g. phasing-out old Diesel vehicles (NO_x), upgrading domestic heating (PM), improving agriculture practices (NH₃), etc.

A fair treatment in regulation would let consumers, citizens and business customers decide, and let the technologies compete. This is particularly important when we consider social,

regional and resource availability issues. To deliver the 2050 ambition, the decarbonisation of transport should be driven by a technologically open policy approach.

Low-carbon liquid fuels are fully compatible with existing vehicles and do not require the implementation of new, dedicated distribution infrastructure and refuelling facilities at added costs.

To conclude, John Cooper underlined *“A full consideration of the wealth of science that we now have seems to support recognition of low-carbon liquid fuels as complementary to electrification. Would not Europe, and indeed the whole world be better off if European policies supported the rapid scale-up of the full set of low-carbon liquid fuels technologies, together with their value chains and positive social impacts?”*

If you agree, then please join us in the call to restore true technological inclusiveness in road transport policy.

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FuelsEurope, the voice of the European petroleum refining industry

FuelsEurope represents with the EU institutions the interest of 41 companies operating refineries in the EU. Members account for almost 100% of EU petroleum refining capacity and more than 75% of EU motor fuel retail sales.

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