

Press release on the open letter from scientists to the EU bodies

Without climate-neutral fuels, CO2 targets will be missed

Renewable and alternative fuels are essential for climate protection in the mobility sector and serve energy security

Hamburg/Frankfurt am Main, 19.04.22. Climate protection needs innovation. This is what the 175 scientists from a wide range of disciplines stand for who, on the occasion of the processing of the Fit for 55 package and the recently announced Taxonomy Regulation, have addressed an open letter to the European Commission and now also to the EU Parliament and the EU Council. "Innovations only thrive on the ground of technological openness, which we miss in the planned changes to the legal regulations on climate protection in transport," emphasize the two initiators, Prof. Dr.-Ing. Thomas Willner from the University of Applied Sciences in Hamburg and Dr. Armin Günther from Air Liquide Global E&C Solutions Deutschland GmbH in Frankfurt am Main. The appeal focuses on the CO2 Fleet Regulation for passenger cars and heavy commercial vehicles, as well as the Alternative Fuels Infrastructure Regulation, the Energy Taxation Directive and the Renewable Energy Directive.

The group of scientists wants to support political decision-makers prevent in setting the right course for climate protection in transport and thus achieving the ambitious climate protection targets. Especially since the CO2 Fleet Regulation ignores the defossilization of the existing vehicle fleet.

In view of the enormous and ever-increasing time pressure, we can no longer afford to make omissions and mistakes in climate protection. Climate protection measures must take effect immediately after their implementation. "We therefore want to stimulate a broad discussion on this topic on a scientific basis and call for a transparent and technology-neutral climate protection policy that is based on real physical greenhouse gas reductions along the entire value chain," says Prof. Willner. In this area, he sees a considerable need for improvement in the legal regulations.

The scientists are convinced that the current regulations represent a one-sided promotion of electromobility that cannot be physically justified in this form. For example, the CO2 Fleet Regulation credits electromobility with zero CO2 emissions, while renewable and other alternative fuels are not taken into account at all. "This prevents fair competition for the best solutions to the problems because the actual greenhouse gas reductions are not considered. The climate only reacts to real physical greenhouse gas quantities and not to factors arbitrarily determined by politicians for the crediting of measures," emphasizes Prof. Willner.

Based on available studies¹, the scientists conclude that electromobility will in all likelihood not lead to any significant greenhouse gas reductions in the period up to 2030, which is crucial for the long-term success or failure of climate protection. In particular, the high CO₂ emissions caused by the construction of batteries, the high share of fossil fuels in power generation that will still exist for a long time and the enormous expense for the charging infrastructure. In addition, electromobility would tie up renewable potential of the electricity sector in the transport sector that would then be lacking elsewhere, for example in industry.

Prof. Willner's research group sees other solutions, such as sustainable, greenhouse gas-saving alternative fuels (liquid and gaseous, including renewable hydrogen, methane and others), "that we believe would be far more effective because they would immediately deliver real greenhouse gas reductions to the existing fleet of more than 260 million vehicles in the EU - without the need for new infrastructure." Legislation urgently needs to create a level playing field for these options, he said.

In parallel, the development of new markets in the field of clean mobility should be addressed, notably by setting ambitious targets for the roll-out of hydrogen recharging stations along the main transport corridors in the Alternative Fuels Infrastructure Regulation that is currently discussed by EU co-legislators. The "H2Mobility Deutschland" initiative, for example, provides for this in order to meet rising hydrogen demand in the mobility sector.

"The key to decarbonizing the mobility and industrial sectors and supporting energy security is the diversification of different renewable pathways as well as the further development of new and the optimization of existing technology pathways," emphasizes co-initiator Dr. Armin Günther.

What are alternative fuels? These include not only the first-generation biofuels currently on the market, but also advanced biofuels such as HVO/care diesel and others produced from waste and residues from agriculture, forestry, the wood industry, the food industry and similar sectors. In addition, there are fuels based on non-biogenic wastes such as plastics, as well as electricity-based fuels, so-called PtX fuels (power-to-X) or e-fuels, and highly efficient hybrids, i.e. fuels based on both residual or waste materials and electricity (e.g., waste-based e-fuels).

Pure e-fuels, for example, could be produced in countries with a surplus of renewable energy and imported to Europe. The required carbon dioxide could be captured from various sources, even directly from the air. "According to a recent study², more than one million new jobs could be created in Europe," the scientists appeal.

With the introduction of such e-fuels next to hydrogen, Europe would also have the chance to contribute to covering its very high energy import demand based on renewable energies. In addition, this would advance the international cooperation that is urgently needed for climate protection. After all, climate protection is a task that can only be solved globally. Christian Elvers, the initiative's press spokesman, uses the war in Ukraine as an opportunity to make a further appeal: "We are currently seeing how closely climate protection and energy security are intertwined. A market ramp-up of climate-neutral, non-fossil fuels in Europe is already possible today. This will not only help us make progress in climate protection, but also reduce our dependence on fossil energy imports."

Enclosure: Open letter to the EU Commission

¹ https://www.fvv-net.de/fileadmin/user_upload/medien/pressemitteilungen/FVV_LCA_Life-cycle_analysis_Frontier_Economics_R595_final_2020-06_EN.pdf

² https://www.iwkoeln.de/fileadmin/user_upload/Studien/Gutachten/PDF/2021/Gutachten-Synthetische_Kraftstoffe_Europa_englisch.pdf