



European
Automobile
Manufacturers
Association



POTSDAM INSTITUTE FOR
CLIMATE IMPACT RESEARCH

DECEMBER 2020

JOINT STATEMENT

THE TRANSITION TO ZERO-EMISSION ROAD FREIGHT TRANSPORT

Climate change is the most fundamental challenge of our generation, with greenhouse gases from fossil fuels being the main cause of the problem. At the same time, the raging COVID-19 pandemic has put the spotlight on the crucial role road transport and logistics play to ensure that food, medicines and other essential goods are available to those who need them.

If road freight transport is to maintain its role in serving society it must decarbonise quickly. To achieve this, we must be fast, smart and decisive, applying sound and fact-based decision making. We need an open exchange on the latest scientific assessments, as well as close collaboration between business, science, policy and society at large. This is why European truck manufacturers, under the umbrella of the European Automobile Manufacturers' Association (ACEA), together with the Potsdam Institute for Climate Impact Research (PIK), have embarked on a business-science dialogue on pathways to a sustainable, carbon-neutral future for road transport.

The commercial vehicle industry is committed to decarbonisation by 2050 at the latest. But setting a target is not enough; we must find a way to get there. Science shows us that if we want to avoid crossing dangerous tipping points in the Earth system, we need to act today – combining all available solutions to make a rapid shift to carbon-neutrality.

Making vehicles more efficient has always been a top priority for the truck industry, as this is a key competitive factor. But cutting emissions by a few percentages per year is not enough. Carbon-neutrality by 2050 at the latest implies that by 2040 all new commercial vehicles sold must be fossil free. And this is a pledge that the commercial vehicle industry is making now for the first time. This transition starts today, in 2020. It involves a fundamental restructuring of the industry, and ultimately of the value-chains of all sectors that depend on commercial vehicles: from trucks delivering food, to retailers and public transport in green cities.

Reliable and efficient zero-emission vehicles are already beginning to hit the market, but we will need to rapidly increase their numbers and range over the next few years. This will require a paradigm shift, moving away from fossil fuels as the main energy carrier as quickly as possible. Not only are we convinced that it is necessary, we know it is possible and we are ready to make it happen. We believe we should focus on segments where vehicles emit the most: long-haulage transport is where the big gains are.

We are convinced that new powertrain technologies will fast become the backbone of road freight transport. Indeed, truck manufacturers are investing heavily in new solutions, such as alternative fuels, batteries and hydrogen. Battery electric vehicles are the first zero-emission technology to reach the truck market, and will be immediately followed by hydrogen-powered trucks.

However, the shift to decarbonised transport and logistics must be driven by demand and affordability: those who operate trucks will not invest in zero-emission technologies if there is no straightforward and affordable way to run, refuel and recharge them.

Heavy-duty electric trucks have high power and energy demands – requiring a network of mega-chargers to keep the logistics streams flowing – as well as specific space and access requirements. Their charging and refuelling infrastructure needs therefore to differ significantly from those of passenger cars. A successful market deployment of zero-emission trucks will only be possible if a dense network of appropriate infrastructure is rolled out rapidly. This is not a chicken or egg issue: the infrastructure must be available now, as transport companies need certainty that they can fulfill their transport missions. Truck manufacturers, in cooperation with fleet operators, will of course play an active role in developing the network of charging stations, but policy makers at the EU and national levels must take urgent action to make this possible.

Although the roll-out of charging stations will demand great efforts from all players, it is the easier part of the puzzle. The main concern is access to electricity grids with adequate capacity. There are transport companies ready to invest in electric solutions, but the lack of grid capacity where they are based, is making it hard, if not impossible – at least in the short term.

Furthermore, zero-emission vehicles will not take off as long as diesel remains cheaper. New-technology vehicles will simply have to become the better option, the preferred choice of transport operators. For this to happen, we need comprehensive carbon pricing which drives the deployment of zero-emission trucks and adequately reflects the total costs of CO₂ emissions. Science and truck manufacturers agree that the price of carbon must increase to much higher levels than today if we want to shift the sector – and indeed the world – to carbon-neutrality.

The full range of policy options, such as the inclusion of road transport in the emission trading system, road charges based on CO₂ emissions, and an energy taxation system based on carbon and energy content, should be urgently considered by policy-makers. Sound CO₂ emissions pricing might be the single most effective policy to achieve the transition towards a safe and clean climate future.

All energy carriers, be it electricity, hydrogen or fuels, must also be decarbonised rapidly, primarily driven by pricing carbon. Therefore, policy makers need to address the whole value chain and apply a well-to-wheel perspective.

Factors involving policy decisions are inherently hard to forecast. But today we estimate that we could have cost parity between battery-electric solutions and diesel in just a few years for many segments of the truck market.

Zero-emission vehicles will not only bring down CO₂ emissions, they will also improve air quality levels fast – a factor of crucial significance for human health. All resources must therefore be devoted to reaching carbon neutrality as fast as possible.

The truck industry is ready to change and ready to lead, but cannot do it alone. A first step has been taken with the ACEA/PIK cooperation, as industry and science start to work together in a strategic partnership to accelerate the transition, on the basis of scientific information and mutual learning.

We also need deeper engagement with policy and citizens in the grand transition we are now embarking on, and so invite all stakeholders and partners to join us. Let's live up to the ambition required to start bending the emissions curve now.

We stand ready, a zero-emission transport system is possible.



Professor Dr Johan Rockström

Director, Potsdam Institute
for Climate Impact Research



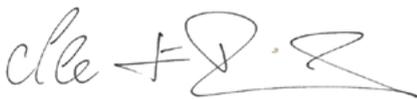
Henrik Henriksson

President and CEO, SCANIA CV AB
Chairman of the ACEA Commercial Vehicles
Board of Directors



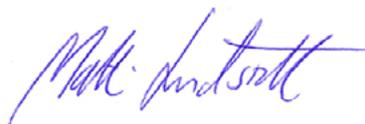
Professor Dr Ottmar Edenhofer

Director, Potsdam Institute
for Climate Impact Research



Martin Daum

Chairman of the Board of Management
of Daimler Truck AG and Member
of the Board of Management of Daimler AG



Martin Lundstedt

President and CEO Volvo Group



Gerrit Marx

President Commercial
& Specialty Vehicles Segment,
CNH Industrial



Dr Andreas Tostmann

CEO MAN Truck & Bus SE



Harry Wolters

President DAF Trucks N.V.



Haydar Yenigün

General Manager, FORD Trucks