

Vision for the future of the EU automotive industry – input to the Strategic Dialogue

Position paper – 13 February 2025

AECC welcomes the initiative from the European Commission to organise a Strategic Dialogue on the Future of the Automotive Industry. We believe this is a useful tool in identifying and agreeing our critical challenges and finding common solutions across the entire automotive ecosystem. AECC hereby contributes with its vision for the future of the EU automotive industry.

Summary

Our vision for the future of automotive is a thriving industry that supports affordable, convenient and clean mobility for all, in a way that retains the European Union’s highly skilled workforce, jobs, and our historical standing as a critical hub for innovation through investments in research and development (R&D).

Electromobility is one of the key enablers for the decarbonisation of our industry. However, it is not the only decarbonisation pathway for the sector. Pursuing a technology-open approach would allow for complementary technologies to innovate while also helping us to reach a net-zero economy in a more resilient, affordable and inclusive way.

For example, we believe that in order to maintain its climate ambitions, industrial competitiveness and technological independence, the EU must review its approach towards road transport emissions as part of the reviews of the CO₂ emissions standards for cars and trucks by ramping up the production and employment of sustainable renewable fuels while further innovating existing powertrain technologies.

AECC believes that a technology-open approach based on life-cycle considerations would support European workers and citizens, while allowing us to achieve our climate objectives in three main ways

- Supporting our **skilled workers** across the European Union
- Giving EU **consumers** choice on their vehicles
- Supporting **affordable and accessible mobility** for all citizens.

AECC believes the following policy measures are needed to achieve this for the above example:

- Establishing a vehicle category running exclusively on **CO₂-neutral fuels**.
- Assessing carbon-neutrality in a holistic manner based on a **life-cycle approach**.
- Supporting better **air quality** longer-term through a review of the effectiveness and appropriateness of Euro 7 to meet future EU Air Quality rules.

We call on the upcoming Industrial Action Plan for the Automotive Sector to consider these points as it lays out the path forward for this vital sector.

A Technology-Open Approach for a Competitive European Automotive Industry

The current crisis

Mario Draghi’s Report on the Future of European Competitiveness highlighted that the automotive sector is undergoing a major structural transformation. It is faced with fundamental changes to its geographical footprint, supply chains, and production lines in order to comply with the shift to zero tailpipe emission vehicles. This is also in

the face of increasing competition from global competitors – in particular from China - that are rapidly gaining market share both globally and in the EU.

The European automotive sector is a [major employer](#)¹, providing directly and indirectly 13.8 million jobs, representing 6.1% of total employment in the EU. The sector is currently experiencing significant job losses, and this is set to escalate as manufacturers and suppliers transition to electric vehicle only production.

- A 2021 [study](#)² projects that a complete shift to electric vehicles will result in more than 500,000 job losses across automotive suppliers alone, with only 226,000 replacement jobs to be created.
- In 2024, automotive suppliers [announced](#)³ 54,000 job cuts, amounting to more than all jobs lost in 2021-22 during the pandemic. Since 2019, automotive suppliers have announced a total of 145,000 job cuts.
- Recent employment tracking [data](#)⁴ shows that just 20% of the jobs expected to be generated by the emerging electric vehicle supply chain have been realised.

This is a worrying trend as many European regions are highly reliant on the quality jobs provided by the automotive sector. These losses risk exacerbating social and regional inequalities, as well as skilled workers and expertise moving out of the EU alongside its R&D capacity.

Green Deal: Where we can go further

The Green Deal was a comprehensive and ambitious plan to set Europe on the path to achieving net-zero by 2050. We warmly welcomed it and agreed with its objectives, but we believe there are areas where we could go further when it comes to road transport.

- **CO₂ emissions reduction:** The focus on only certain technology pathways for decarbonisation – i.e. mainly battery electric vehicles for passenger cars – has imposed a limitation on the automotive sector forcing it to decrease innovation in other pathways where they have a comparative advantage over global competitors. Vehicle CO₂ standards are based solely on tailpipe targets when total life-cycle emissions are the real issue to tackle. Viewing CO₂ emissions reduction through this lens would open up the use of additional technologies while also looking at the issue in a more holistic way.
- **Air quality:** While the recent revision of the Ambient Air Quality Directive has increased standards, it still falls short of the recommendations of the World Health Organisation – which the European Commission itself recognised as being the recommended approach in its own impact assessment. Additionally, insufficient ambition in Euro 7 will result in a smaller reduction in pollutant emissions than is feasible with already available technology. This unnecessarily limits the role that innovative emissions reduction technology can play in facilitating alternative decarbonisation pathways. AECC is keen to see the European Commission going further here – the technology already exists to allow us to do so.
- **Innovation in existing technologies:** There are limitations on companies seeking to further innovate the internal combustion engine (ICE) and hybrid electric vehicle (HEV) technologies. The life-cycle considerations show it is not the ICE that is the issue, it is the fuel that goes into it. The current legislative approach is hampering the business case to realise the full potential of CO₂-neutral fuels, incl. H₂. It is also preventing the introduction of advanced emission control systems, innovations already developed with significant investment in European R&D.

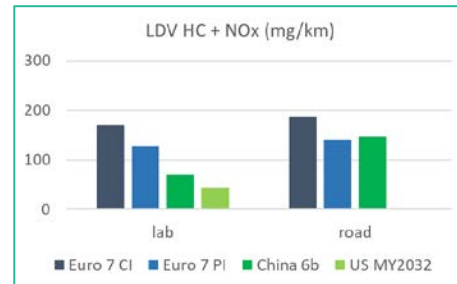
The Strategic Dialogue on the Future of the Automotive Sector, the Industrial Action Plan on the Automotive Sector, and key upcoming initiatives like the Clean Industrial Deal which will define this political mandate, offer a unique opportunity to go further and to ensure the long-term competitiveness of the automotive sector while still achieving our decarbonisation objectives.

Global Context

Other regions of the world rely on a broader range of powertrain technologies. As the [table⁵](#) below shows, only California is following a similar approach as the European Union, with a significant discrepancy to the federal CO₂ emissions standards in the US. China is leading on BEV sales, but with a diversified technology strategy as targets are set based on a New Energy Vehicle concept (NEV), including PHEV next to BEV and FCEV.

Furthermore, more stringent pollutant emissions standards have been adopted (US MY2027+) or are being developed (China 7) in these regions.

Government	2023 ZEV sales share	ZEV sales share goal										
		2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
European Union	15%	100% ZEV in 2035*										
China	23%	45% NEV in 2027										
California	23%	100% EV in 2035										
United States	7.5%	50% EV in 2030										



This global dynamic is impacting overall industry competitiveness and employment in the EU automotive sector.

Technology-Openness

A focus purely on electrification risks uncertainties around how far the EU will get on the GHG emissions reduction trajectory for road vehicles. The success of this route is underpinned by important prerequisites like the rollout pace of new vehicles, consumer acceptance, density of charging infrastructure, access to critical raw material, etc.

Electrification is one of the key enablers for decarbonisation. However, keeping a technology-open approach is needed so complementary technologies innovate while also helping us to reach a net-zero economy in a more resilient way. We would therefore welcome the European Commission focusing on ways to incentivise the production of sustainable renewable fuels for a wide range of transport modes, including automotive.

AECC believes that a technology-open approach would support European workers and citizens, while allowing us to achieve our climate objectives in three main ways:

Supporting our skilled workers across the European Union

We know that [allowing²](#) all technologies that can play a role in supporting the transition to net-zero can retain more jobs for European citizens. For example, a technology-open approach to automotive decarbonisation would support 46,000 more jobs in Spain, 104,000 in Germany, 62,000 in Italy, and 19,000 in Poland by 2040. This would limit negative social impacts resulting from the green transitions without having to sacrifice our net-zero ambitions.

Giving EU consumers choice on their vehicles

The trajectory of electric vehicle sales in 2024 was not as expected, and the rollout of the necessary charging infrastructure is not being put in place as rapidly as hoped. These are not unsolvable issues. However, consumer rights groups have signalled several factors including [charging infrastructure deficits⁶](#) and high costs that must be overcome to make the switch to electric vehicles convenient for citizens. Sustainable renewable fuels can directly decarbonise both the new and existing fleet, as a 'drop-in' solution, accelerating the reduction of transport CO₂ emissions. More drivers will be able to play their part to help us reach net-zero.

Supporting affordable and accessible mobility for all citizens

We want our EU economy to flourish and decarbonise as quickly as possible. But we must not leave anyone behind. Sustainable renewable fuels allow alternative solutions for those that have no sufficient access to charging infrastructure or those that cannot afford to buy a brand new electric vehicle. All citizens have the right to affordable and accessible mobility, and sustainable renewable fuels will facilitate this.

Comprehensive AECC studies have already demonstrated that road transport decarbonisation and pollutant reduction can be achieved through the use of CO₂-neutral fuels. All [light-duty](#)⁷ and [heavy-duty](#)⁸ vehicle powertrains reduce [life-cycle CO₂](#)⁹ when powered by sustainable renewable fuels or electricity. It is clear from such studies that the ICE is not the problem, but rather it is the use of fossil fuels that go into it. These decarbonisation pathways also offer strong potential if allowed to flourish alongside electromobility.

A broad coalition of automotive sector stakeholders recently called for hydrogen vehicles to be acknowledged as crucial for road transport decarbonisation and included in the Strategic Dialogue. They flagged that this is an area in which Europe retains a global competitive advantage, but that the strict regulatory framework is hampering its development to the detriment of the European automotive sector and our climate objectives.

The Draghi Report acknowledged that the principle of technology-openness has not been consistently applied for the automotive sector – recognising that the current situation has imposed an artificial limitation on European competitiveness. He has called for the upcoming review of CO₂ emissions standards legislation to adopt a technology-open approach that considers the role that CO₂-neutral fuels can play.

AECC warmly welcomed the European Commission's recently published Competitiveness Compass which recognised that a technology-open approach is vital for reaching our climate objectives. CO₂-neutral fuels should be explicitly included in the discussions, going further than the targeted amendment mentioned on e-fuels. AECC demo vehicles have for example been tested on an advanced biofuel with similar Well-to-Wheel CO₂ emissions reductions.

How to resolve uncertainty in the CO₂ emissions standard

The EU must reassess and rethink its approach towards road transport emissions as part of the reviews of the CO₂ emissions standards for light-duty and heavy-duty vehicles in order to maintain its climate ambitions, industrial competitiveness, and technological independence. A combination of measures is needed.

- The CO₂ emissions standards should generally support all powertrains based on life-cycle considerations. A first step is to define provisions for the registration of vehicles running exclusively on CO₂-neutral fuels. AECC supports the [work](#)¹⁰ of the Working Group on Monitoring Methodologies in this regards.
- The Renewable Energy Directive needs to be modified in addition to the CO₂ emissions standards. It should for example set an appropriate blending scenario towards CO₂-neutral fuels.
- As technology continues to innovate and improve, the European legislators should aim to assure zero-impact pollutant emission levels, so every vehicle contributes to better air quality and protection of human health. Emission control systems have already been developed for greater ambition than the recently adopted Euro 7 standards for cars and trucks.

AECC is committed to the decarbonisation of road transport. However, we want to see more flexibility in how this is achieved. This will allow the automotive sector to work towards net-zero while remaining competitive and highly innovative. A technology-open approach offers a safety net that will support competitiveness and secure jobs, making the transition to sustainable road transport manageable for both industrial actors and EU citizens.

About Us

The **Association for Emissions Control and Climate** (AECC) is the international, Brussels-based association of European companies operating worldwide in the research, development, testing and manufacture of key sustainable technologies for mobile and stationary applications. Our membership includes [Emitec Technologies](#), [Johnson Matthey](#), [NGK Europe](#), [Umicore](#), [BASF ECMS](#) and [W.L. GORE](#).

We have a strong and focused European footprint across our members – employing around 22,500 skilled people in Europe across 46 production sites and 19 research and development (R&D) technical sites. We are present in 8 Member States in the European Union and we are proud to be an integral part of Europe's automotive ecosystem, advancing innovation in a vital industrial sector.

AECC's members play a key role in the decarbonisation of this important EU industry – supporting thousands of critical jobs across the supply chain at the same time. Our members' emission control technologies are integrated into the exhaust systems of cars, commercial vehicles, buses, motorcycles, and construction equipment in

Europe. We work with OEMs and other industry stakeholders, providing innovative technological solutions to the pollutant problem that we see today.

AECC supports the European Commission's long-term ambition for zero pollution and increased greenhouse gas emission reductions. Clean air and greenhouse gas reduction are priorities for all of us.

AECC is registered in the EU Transparency Register under n° 78711786419-61.

Should you need more information, you can contact AECC at info@aecc.eu.

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