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Industrial Action Plan for the European automotive sector

1. Introduction

The automotive industry is a core engine of European prosperity and an essential part of Europe's identity. European manufacturers have been global leaders since the invention of the automobile, producing iconic brands that set high benchmarks in innovation and excellence. Today, the sector accounts for €1 trillion in GDP, a third of private research and development investment in the EU and it provides direct and indirect employment to 13 million Europeans. For commercial vehicles, European truck makers account for more than 40% of the world market.[1] The European automotive industry leadership commands admiration from the world over.

Currently, the sector is undergoing a structural transformation of unprecedented speed and magnitude. The shift to clean mobility is accelerating. In 2024, already one out of five cars sold globally was electric. At the same time, the rapid integration of digital technologies, such as AI, software, sensing and communication devices, together with the increasing importance of digital services and connectivity, are shaking up the sector. **It is imperative that the European automotive industry not only navigates, but also shapes the transition to zero-emission, connected and increasingly automated vehicles.**

While facing this transition, our automotive industry is also confronted with serious competitiveness challenges. It faces global supply chain risks and dependencies on raw materials and battery imports, a still too large reliance on fossil fuels, fierce competition for talent, cost gaps in key inputs, and an increasingly volatile geopolitical context. European companies risk falling behind on key strategic technologies such as batteries, software, infotainment systems, and autonomous driving, and often have less direct control over many raw material inputs, while overseas competitors are often supported by assertive industrial strategies and receive State support in various forms.

This is a pivotal moment for the European automotive industry - decisive action is needed, and the European Union (EU) is committed to support the sector in its transition.

That is the purpose of this Action Plan, which builds on the Competitiveness Compass, the Clean Industrial Deal and – in recent weeks – a wide series of consultations, led by the President of the Commission and several Commission members, in which more than 100 organisations actively participated.[2] It sets out concrete measures to help secure global competitiveness of the European automotive industry and maintain a strong European production base through **action in five key areas**: 1) innovation and digitalisation, 2) clean mobility, 3) competitiveness and supply chain resilience, 4) skills and social dimension, and 5) level playing field and business environment.

2. The five Pillars of the Automotive Action Plan

2.1 Innovation and Digitalisation

To be globally competitive, the European automotive industry must urgently regain a leadership position in the transition towards software-enabled, AI-powered connected and autonomous vehicles. The in-car experience for both drivers and passengers is becoming increasingly software-defined, with new applications, such as automated and autonomous driving, communication and

[1] Statista Market Insights, January 2025.
[2] These consultations, which took place between January 30 and February 20, were complemented by an Open Public Consultation, which received more than 1900 responses.

infotainment playing a more central role. Such elements rapidly become key strategic differentiators in which vehicle manufacturers (original equipment manufacturers – OEMs) must excel, but in which they currently risk falling behind overseas competitors.

Promote autonomous driving and boost the single market for autonomous vehicles

Autonomous driving technology will be a crucial determinant of competitiveness and will account for a significant share of future value-added. It is expected to generate value-added for the automotive sector of globally up to EUR 400 billion by 2035.

Testbeds for autonomous driving

In the EU, the conditions for road testing and commercial operations of fully autonomous vehicles are less favourable than in the US and China. This gives competitors in these jurisdictions a significant head start.

To boost market readiness and commercialisation of autonomous vehicles, the Commission will work with Member States to rapidly establish at least three **large-scale cross-border testbeds, related regulatory sandboxes and European Automated Driving Corridors.** Medium-sized cities willing to play a pioneering role could be included. These testbeds will allow for at-scale pilot deployment of autonomous vehicles, both for passenger and goods transport. The Commission also commits to further assess the potential for automated vehicles integration in the transport system through communication between vehicles and infrastructure.

Towards a Single Market for autonomous driving

Today, the regulatory environment on connected and autonomous mobility is fragmented. Few Member States have national traffic rules that allow autonomous vehicles on their roads, blocking the potential of the single market for autonomous driving. Cooperation between all those that develop and build those vehicles, as well as road operators and infrastructure managers is crucial. A **more harmonised framework and EU level governance** is needed to reap the benefits of our Single Market and to facilitate the swift deployment of connected and autonomous mobility. The Commission will take action to achieve this objective.

The Commission will further develop, as a priority, the **regulatory framework for autonomous vehicles**, starting with **allowing the approval of unlimited series of vehicles with automated parking systems in 2025 and more use cases** (e.g. hub-to-hub freight transport) **in 2026** ensuring their safety. Furthermore, the Commission will **draw up refined rules to better support pre-deployment of ADS** (automated driving systems) **and ADAS** (advanced driver assistance systems) **testing on public roads**. Testing innovative ADAS and ADS technologies on public roads in Europe typically requires permits based on exemptions from national rules, which requires multiple approvals across different Member States. The Commission will **propose harmonised admission approval procedures in early 2026 to facilitate all ADAS and ADS testing on open roads across the EU**.

Flagship Actions:

Establishment of large-scale cross-border testbeds for autonomous vehicles starting in 2026.

Boost regulatory framework and single market integration for European Autonomous Driving: i) with rules on unlimited series of vehicles of automated driving systems by 2026; ii) harmonised rules for testing of ADAS and ADS on public roads by 2026; iii) and harmonised rules for deployment across EU.

Boosting development of the European connected and automated vehicle of the future

Chips, software and AI are the three core ingredients for the connected and automated vehicle of the future. While European vehicle manufacturers and suppliers account for 45% of global automotive R&D investments, they are challenged in this area by tech companies and new 'digital-native' automotive players from outside Europe. To avoid new dependencies as well as loss of value-added and employment to overseas, the **EU needs to build its own industrial capacities for the software and IT hardware needed for clean, connected and automated vehicles.** This includes ensuring that such software and equipment is designed to use space-based data and services for navigation, high precision positioning, Earth observation and secure connectivity as provided by EU systems Galileo/EGNOS, Copernicus and soon IRIS respectively.

European Connected and Autonomous Vehicle Alliance

Close collaboration among European players, within the framework of EU competition rules, is needed to develop shared software and digital hardware building blocks. This would allow to achieve significant resource savings. Car manufacturers could accelerate common technology development and focus resources on those elements that drive a differentiating customer experience.

The Commission will therefore launch, without delay, the ***European Connected and Autonomous Vehicle Alliance,*** building on the preparatory work done in the European Vehicle of the Future Initiative, and the Horizon Europe automotive-related Partnerships, in particular 2Zero, CCAM and the Chips Joint Undertaking. It will bring together a critical mass of European automotive stakeholders, including SMEs, to shape the development of the next generation of vehicles focusing on common architecture elements, shared European hardware and software building blocks as well as their standardisation. Based on a joint innovation roadmap, the Alliance will deliver the following key activities:

- ***Develop a Software Platform for Software-Defined Vehicles:*** The Alliance will develop an EU-wide, open platform on Software-Defined Vehicles based on state-of-the-art open-source software building blocks, as well as interfaces, standards and tools.

- ***Develop an in-vehicle computing architecture for Software-Defined Vehicles:*** Autonomous driving requires centralised advanced computing capacity on board. The Alliance will develop a future-proof computing platform that is adaptable, flexible, energy-efficient, and capable of real-time performance, and will be integrating more advanced processors, including AI chips, while ensuring that software-defined vehicles remain scalable and easily upgradable.

- ***Develop innovative AI solutions for the automotive industry:*** Develop sector-specific generative AI models and algorithms that allow e.g. autonomous driving, optimising operation

of connected vehicles in the transport and charging infrastructure, and effective battery-management or Al-driven predictive maintenance.

- ***Create a large-scale distributed pilot facility in 2026/2027:*** The facility will serve as a collaborative environment for industry for **Software-Defined Vehicles and AI engineering** and as a testbed for innovation in application layers.

- ***Accelerate the transition toward autonomous driving:*** Develop and deliver an ambitious technology roadmap for the development of shared Autonomous Driving System (ADS) components (software and hardware).

The Alliance is a powerful mechanism to accelerate the cross-border cooperation of European industry on innovation, development and first industrial deployment of connected and autonomous driving technologies. The Commission stands ready to provide, at the request of the industry, guidance on how pooling of automotive data to allow AI advancements in autonomous driving can be done in compliance with competition law. The Commission will also support the ongoing technical work of Member States to identify a possible Important Project of Common European Interest (**IPCEI) candidate for clean, connected and autonomous vehicles,** while ensuring it is accessible to innovative SMEs.

Next-gen battery technology

Overseas competitors are investing significant financial and human resources into R&D of future battery technology, with heavy state support. The EU is putting a strong focus on battery innovation through the Horizon Europe partnership **BATT4EU**. This focus remains important. The Commission will support **the whole EU value chain of next generation batteries, including recycling**, in close cooperation with partnerships in advanced manufacturing and advanced materials. For the years 2025 to 2027, the dedicated budget will be around EUR 350 million, as part of the overall Horizon Europe contribution for the automotive sector.

Funding under Horizon Europe

The activities of the Alliance as well as the Next-gen battery technology will be supported by joint public and private investment under relevant partnerships of Horizon Europe. The Programme will make available EUR 1 billion for the automotive sector for the period 2025-2027, including relevant activities financed via the European Innovation Council. In the future, dedicated partnerships for specific activities could be brought together in a dedicated Joint-Undertaking for the automotive sector. This is without prejudice to the next MFF proposal's package.

Catalysing private investments for scaling up Innovation in Europe

As announced in the Competitiveness Compass and the Clean Industrial Deal, the Commission will work with the EIB Group and private investors to deploy a **TechEU investment programme** to help bridge the financing gap for disruptive innovation, strengthen Europe's industrial capacity and scaling up of companies that invest in innovative technologies in synergy with the European Innovation Council relevant project portfolio. In the automotive sector, TechEU could support investments in RDI for future strategic technologies, digitalization, AI application, along with advanced manufacturing and supply chain industrial capabilities deployment, and the scale-up of strategic and competitive technologies by automotive OEMs, suppliers, and innovative technology companies, including the build-up of the battery cell technologies supply chain.

Flagship Actions:

Establish the European Connected and Autonomous Vehicle Alliance in 2025.

Support research and innovation to connected and automated mobility and to develop next-gen battery technology through Horizon Europe.

Other Action:

Work with EIB Group and private sector to deploy TechEU investment programme on scale-ups, including for building up of the battery cell technologies supply chain.

Cybersecurity

The hardware and software components of connected and automated vehicles have important security implications. The Commission **will follow up on an on-going cybersecurity risk assessment on connected vehicles under the NIS2 Directive with concrete measures**, including, if necessary, in the regulatory framework for motor vehicles, and will explore ways to build up a European industrial value chain for critical components. In parallel, in line with the EU's economic security strategy, the Commission, in dialogue with its international partners and in particular the G7, will develop a shared view of cybersecurity risks and potential mitigation measures related to connected vehicles. This is important to avoid further fragmentation of the global market. It will also develop economic security standards to tackle supply chain risks, such as overdependency, weaponization, overcapacity, tech risks, cybersecurity or security risks.

Other Actions:

Continue working towards sufficient cybersecurity without stifling innovation and commercialisation.

Develop economic security standards.

Access to vehicle data, functions and resources

Connected and digital vehicles will create substantial new income streams and economic value from vehicle data. This potential is to a certain extent already unlocked with the Data Act which provides access to data from connected devices, such as vehicles on user request, as well as with the Renewable Energy Directive (RED) which provides for access to battery-related data.

However, due to many specificities of connected motor vehicles and its potential to open new business opportunities, including on bi-directional and smart charging, complementary measures are needed. The Commission will therefore **take adequate measures** to allow the **full** automotive ecosystem to **reap the benefits of data from connected vehicles**, in particular through the application of the Data Act and **Guidance on in-vehicle data** that will be published at the start of application of the Data Act. The Commission will, upon assessment of the effects of the Data Act, consider further action, including a legislative proposal on access to in-vehicle data and the possibility to establish a European Automotive Data Platform. In this context, it will also take into account cybersecurity considerations, including for remote access to data.

The Commission is also assessing whether the existing **EU competition framework regarding vertical agreements in the automotive** aftermarkets (the Motor Vehicle Block Exemption Regulation) is still fit for purpose, including against a backdrop of digitalisation.

Flagship Actions:

Adequate measures on access to vehicle data, functions and resources including guidance on Data Act and if needed, a legislative proposal on access to vehicle data.

Review of the Motor Vehicle Block Exemption Regulation (MVBER) and Supplementary Guidelines.

2.2 Clean Mobility

Road transport still represents around one quarter of the EU's total greenhouse gas emissions. To reach Europe's ambition to become climate neutral by 2050, transport emissions need to be reduced by 90% by that date. And to ensure continued commercial success, it is also critical that European OEMs, which are already strongly investing in zero-emission technologies, regain technology and product leadership in zero-emission vehicles. Zero-emission vehicles already account for a significant share of global sales and eventually will be the dominant market segment. A strong home market, supported by adequate infrastructure across all territories, is a crucial enabler for this.

Emission standards

The transition to clean road mobility is supported by CO_2 emission standards for new cars and vans and for new heavy-duty vehicles, which set progressively higher emission reduction targets for manufacturers. These standards provide long-term certainty and predictability for investors along the value chain, while allowing sufficient lead time for a fair transition. At present, there are close to 6 million zero-emission vehicles on Europe's roads, but significant ramp-up is still needed to achieve the targets of 2035 and 2040.

Demand for battery electric vehicles has been weaker recently than anticipated. Following a six-fold increase from 2019 to 2023, the sales of battery electric vehicles in the EU slightly declined by 5.6 percent between 2023 and 2024, with market shares down from 14.6 to 13.6 percent, as well as delays in the market launches of affordable electric vehicle models.

While January 2025 figures showed a 15 percent share of sales for battery electric vehicles, compared to 10,9 percent in January 2024, there is still a risk that the 2025 passenger vehicles emission targets may result in significant penalties. The Commission will therefore **swiftly present additional flexibilities, through a targeted amendment of the CO_2 emission performance standards for cars and vans**. The amendment, if adopted, would determine that compliance is assessed over the years of 2025, 2026 and 2027 combined to allow car manufacturers to **compensate an exceedance of the target in one or two of these years by overachievements in the other year(s).** This will contribute to safeguarding industry's capacity to invest, keeping the overall ambition of the 2025 targets. The Commission calls on the co-legislators to reach an agreement on this amendment without delay, as this would create certainty for the sector. As mentioned in the Commission's Political Guidelines, the CO_2 emission performance standards regulation for cars and vans creates predictability for investors and manufacturers. The European Commission will accelerate work on the preparation of the foreseen review of the Regulation. The review will be based on a fact-based analysis, taking into account all relevant technological developments, and the importance of an economically viable and socially fair transition towards zero-emission mobility.

Flagship Actions:
Proposal to amend CO_2 emission standards for cars and vans, to allow an exceedance of the target in one or two years by overachievement in the other year(s) for the period 2025-2027.
Acceleration of preparations for the foreseen review of the Regulation.

Boosting demand for zero-emission vehicles

Supporting lower-income users through Social Leasing Schemes

Social Leasing schemes can support affordable clean mobility for less advantaged consumers, while giving a direct boost to zero-emission vehicles sales. The Commission will **adopt in Q1 2025 a Recommendation on Transport Poverty, encouraging Member States to adopt social leasing schemes** for new and second-hand zero-emission vehicles, **targeted to vulnerable transport users** as part of the implementation of their national plans **under the Social Climate Fund**. Social leasing (and notably schemes for the rental or leasing of zero-emission vehicles targeted at vulnerable groups) are also covered by the **Guidance on the Social Climate Plans**, which the Commission adopts on the same day as this Communication.

Accelerating the uptake of zero-emission vehicles in corporate fleets

Corporate fleets are an important part of the European vehicles market. Vehicles purchased by undertakings currently make up around 60% of car registrations in the EU. Accelerating the uptake of zero-emission vehicles in corporate fleets will benefit the European automotive industry and will further reduce transport emissions. To ensure an adequate uptake of zero emission vehicles in corporate fleets, eliminating distorting subsidies for fossil fuelled vehicles is instrumental.

The Commission has started work on a **legislative proposal to decarbonise corporate fleets**, with the aim of setting out measures to support the uptake of zero-emission vehicles by corporate buyers, without putting unnecessary burden on SMEs and taking into account criteria on amongst others sustainability and resilience. To build momentum as quickly as possible, the Commission is publishing alongside this Action Plan a **Communication to decarbonise corporate fleets**, which outlines actions that national, regional, and municipal authorities can already take to accelerate the uptake of zero-emissions vehicles.

Shippers play an important role in accelerating the share of zero emission heavy-duty vehicles (HDVs). As part of the work on corporate fleets, the Commission will also look into measures to accelerate the uptake of European zero-emission trucks.

Accelerating the uptake of zero-emission heavy-duty vehicles

In the coming months, the Commission will adopt a **targeted amendment of the Eurovignette Directive to extend the deadline beyond 31 December 2025** to fully exempt zero-emission heavy-duty vehicles from road charges.

Competitiveness and investment in zero-emission trucks and road transport decarbonisation can be further stimulated through a quick conclusion of interinstitutional negotiations and adoption of the proposed revision of the Weights and Dimensions Directive. This would **ensure payload**

parity with diesel vehicles. In addition, several measures[3] are proposed to incentivise investments in efficient trailers through **favourable road toll variations**.

Finally, the retrofitting of conventional heavy-duty vehicles, especially buses, with an electric powertrain can be a cost-effective contribution to fleet decarbonisation. The Commission will support the **development of a Regulation in the framework of the UNECE**, harmonising the type-approval of such retrofitted vehicles at the global level.

The Commission is also exploring action to support the uptake of **clean buses made in Europe**, including through vehicle fleet and depot conversion support and better aggregation of demand or amortisation rules for local municipalities.

Better coordinating Member States' incentive schemes for consumers' purchases

When buying a new car, its cost is generally one of the primary customer considerations. Currently, Member States have chosen different approaches to incentivise the uptake of zero-emission vehicles even across Member States with similar market maturity levels for clean mobility. These incentives are also often subject to changes, reducing certainty for consumers, companies and investors. By now, important lessons have been learnt regarding the effectiveness of such schemes, allowing to optimize their design and support more environmentally sustainable and strategically resilient European production. A more coordinated approach at European level is needed. The Commission will start working, without delay, with **Member States** to exchange best practices and lessons learnt on **incentives schemes** for consumers. This work will identify a toolbox with options for incentive schemes that are designed to be economically efficient and fiscally sustainable and tailored to the maturity of the markets in question and look into avenues for possible EU-level incentive schemes. These discussions will feed into a **Commission Recommendation**, that will also identify EU funding sources from which Member States can support such incentives.

Flagship Actions:
Recommendation on transport poverty (Q1 2025) including Social Leasing Schemes.
Communication (Q1 2025) and Legislative initiative to Decarbonise Corporate Fleets (end 2025).
Other Actions:
Targeted amendment of the Eurovignette Directive to extend the deadline to fully exempt zero-emissions heavy-duty vehicles from road charges (Q2 2025).
Finalise interinstitutional negotiations for the revision of the Weights and Dimensions Directive.
Recommendation on fiscal and non-fiscal demand side incentives (2026).

Accelerate the roll-out of charging infrastructure

Availability of electric recharging and hydrogen refuelling infrastructure is one of the preconditions for the uptake of zero-emission vehicles, and infrastructure investments are therefore also key for the competitiveness of Europe's automotive sector. However, the

[3] COM(2023)189, Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 1999/62/EC, Council Directive 1999/37/EC and Directive (EU) 2019/520 as regards the CO2 emission class of heavy-duty vehicles with trailers.

deployment of recharging infrastructure is not equally developed across the Member States and their regions. This has to change.

Deliver on existing legislation

The Commission will **make available targeted technical assistance to Member States** through the Technical Support Instrument for the implementation of actions foreseen in the Alternative Fuel Infrastructure Regulation (AFIR) and Energy Performance of Buildings Directive (EPBD).

The Alternative Fuels Infrastructure Facility (AFIF) has proven to be an effective and efficient instrument to support recharging and hydrogen refuelling infrastructure rollout. EUR 570 million will already be made available under the Alternative Fuels Infrastructure Facility to projects for the roll-out of alternative fuels infrastructure in 2025 and 2026 with a particular focus on heavy-duty vehicles.

In the **Sustainable Transport Investment Plan**, to be adopted in the course of 2025, the Commission will make additional proposals for actions to remove barriers to scale-up the financing for recharging infrastructure.

Grid access

Delays in grid connections are often a major bottleneck hindering the deployment of recharging infrastructure, especially larger public recharging parks and the high-power chargers needed for heavy-duty vehicles. There are already several priority actions on grid access in delivery or planned under the EU Action Plan for Grids (including providing more transparency on grid hosting capacity and supporting grid operators in anticipating charging demand) and in the Grid Package and the Electrification Action Plan announced for Q1 2026.

The Commission will **shortly issue Guidance and Recommendations to the Member States on shortening the waiting time for recharging points' connections to grids and their priority treatment**, drawing on best practices from Member States. The Commission also recommends that **Member States presume that charging stations, their connection to the grid, the related grid itself and storage assets are in the overriding public interest in the context of permitting procedures.** The Commission will assess whether that presumption should become mandatory. Member States should favour prioritisation of projects beneficial for the clean energy transition and efficiency of the power system, including charging points.

The Commission will **issue guiding principles by summer 2025 identifying conditions under which anticipatory investments in grid projects should be granted**. This will allow to anticipate the future needs of the recharging infrastructure in the grid planning.

The Renewable Energy Directive already authorizes Member States to plan dedicated areas for grids linked to renewable projects, allowing for quicker permitting and planning procedures. Against this backdrop **grids related to areas of relevance to the European Clean Transport Corridors initiative should be considered by Member States as similar acceleration areas** than the ones designed for infrastructure related to renewable plans. The Commission will issue further recommendations on this matter.

Commercial vehicle charging infrastructure

A critical action area is charging infrastructure for heavy-duty vehicles, in depots and along key highway corridors. Infrastructure investments will accelerate the take-up of clean heavy-duty vehicles also of freight customers.

The Commission will work with Member States on a **European Clean Transport Corridor initiative** that will fast-track the deployment of heavy-duty vehicle charging hubs along key logistics corridors in the TEN-T as critical infrastructure, including in the related urban nodes and their multimodal freight terminals. This initiative will be done under the Competitiveness Coordination Tool that was presented in the Competitiveness Compass[4], and will focus on streamlining of permitting, leveraging financing to de-risk investments, and linking to the provisions for specific grid priority areas under the Renewable Energy Directive. The aim is to deliver first impact in 2025. The Commission will also look into ways to **accelerate non-grid permitting** for heavy-duty vehicle recharging stations, for instance through changing zoning regulations to give explicit support for heavy-duty vehicles charging along TEN-T corridors. It is also important to identify the right type of support to depot and public charging point operators for the installation of local electricity storage, such as financing or technical assistance.

Smart and bi-directional charging

With the build-out of renewable energy and increased electrification of end uses, flexibility needs will increase substantially. Smart and bi-directional charging can help alleviate the burden on the grid and support the efficient integration of electric vehicles into the electricity system while saving energy costs of vehicle users.

Member States should therefore put in place a conducive framework for smart and bi-directional charging. The Electricity Market Design Directive already provides Member States with a toolbox to support smart and bi-directional charging. They should ensure that distribution system operators offer fair network charges and avoid double taxing energy stored, including in EV batteries. More generally, Member States can through appropriate taxation of electricity create a business case for bi-directional charging. **The Commission will facilitate the exchange between Member States on best practices and deliver a new network code on demand response (Q1 2026)** which will ensure full market participation of different flexibility services, including bi-directional charging.

In addition, the Commission will assess the needs for smart and bi-directional charging readiness of electric vehicles in the context of type approval. It will launch a regulatory sandbox for V2G pilots to address regulatory, technical and market challenges before large-scale deployment.

[4] The Competitiveness Coordination Tool will coordinate competitiveness investment and policies at EU and national levels, and design pilot cases for cross-border projects in selected key areas with a clear added value for Europe's competitiveness.

Flagship Actions:
European Clean Transport Corridor initiative (Q3 2025).
Make available EUR 570 million under the Alternative Fuels Infrastructure Facility in 2025 and 2026.
Guidance and Commission Recommendation on shortening grid connection procedures and grid connection prioritization.
Guiding principles regarding anticipatory grid investments (Q2 2025).
Other Actions:
Support to Member States for the implementation of AFIR and EPBD by the Technical Support Instrument.
Support Member States in putting in place conducive frameworks for smart / bi-directional charging and facilitate exchange of best practices.

Mobilising private financing

As announced by the Clean Industrial Deal, around EUR 50 billion additional investment will be mobilised under the **InvestEU** to support key EU policies, with EIB Group playing a prominent role in this endeavour. This could include further support to clean tech and clean mobility, including for the benefit of the automotive industry along the entire value chain, to help scaling up or to enhance the investment case for the necessary large-scale investments.

Strengthening consumer trust

The Commission will review the **Car Labelling Directive** in 2026, following the evaluation to be published in the first half of 2025, to support consumers to make sustainable choices and help the objective of increasing the deployment of zero-emission vehicles. This can be done e.g. by including **information about the carbon content of key materials used in the vehicle**.

It should be noted that depending on the country, 75%-90% of consumers buy only second-hand vehicles. When it comes to zero-emission second-hand vehicles, consumers are worried about **battery health and the repairability**. **To strengthen consumer confidence in battery electric vehicles, the Commission will assess the broader issue of battery repairability and take regulatory measures** to ensure access to battery health information in the battery passport, and access to battery repair and maintenance information.

Strengthening usability of charging infrastructure

It is important that consumers can transparently compare charging prices and have full information on available infrastructure at their display. At present, this can still be difficult, and prices for charging can differ substantially from one charging point to the other. The AFIR already requires charge point operators to exchange all relevant data at no cost. **Under the review of AFIR in 2026, the Commission will look into options to further strengthen price transparency at publicly available recharging points**, taking into account relevant market developments.

Flagship Actions:
Regulatory measure to ensure access to battery health information in the battery passport by Q3 2026.
Regulatory measure to ensure access to battery repair and maintenance information in Q3 2025.
Review of AFIR to assess options to further strengthen price transparency at publicly available recharging points in 2026.
Other Action:
Review of Car Labelling Directive in 2026 enhancing consumer information.

2.3 Competitiveness and supply chain resilience

The European automotive industry is at risk of losing significant market shares due to its limited competitiveness in zero-emission vehicle technology and production capabilities, and a significant cost gap in critical components, particularly batteries. Batteries, which account for 30-40% of value-added of a typical electric passenger car, are a critical battleground for future employment and value creation. Europe needs a cost-competitive domestic cell production and supply chain, also with a view to preparing against supply shocks and crises and protecting economic sovereignty. That would cover a large part of the supply of battery cells and European value-added along the supply chain, including EU production capacities of anode active materials, cathode active material and its precursor, and other relevant battery components. This also requires investments of European players in battery material mining and refining operations in Europe or oversea. The objective for 2030 is to achieve a European added value of more than 50% along the value chain.

Battery manufacturing – "Battery Booster"

To achieve near-term cost competitiveness of domestically produced cells and components, this Action Plan presents a Battery Booster package. Finance is an important component of the package. The Commission has already announced up to EUR 3 billion of the **Innovation Fund** for electric vehicle battery manufacturing. The first call for EUR 1 billion was launched on 3 December 2024. The sector also benefits from a top-up of EUR 200 million InvestEU from the Innovation Fund. This will support innovative projects along the European battery manufacturing value chain to address financing challenges by enabling additional EIB Group venture debt operations over 2025-2027. The Commission will make available EUR 1.8 billion in the next two years for supporting companies manufacturing batteries in the EU by mobilizing resources from the Innovation Fund. The Commission will look into possibilities for financing ramping up of European production lines in this context.

The Commission will look into **EU direct production support to companies manufacturing batteries in the EU.** EU support could be combined with State aid. In that context, the Commission is working on a new Clean Industrial State Aid Framework that will simplify State aid rules, notably to ensure sufficient manufacturing capacity of clean tech equipment in Europe, including batteries and their key components. The Commission is currently consulting Member States and stakeholders on a draft of this Framework.

To boost European added value, the **support could be available to overseas players if European companies have entered in partnerships with them** that ensure sharing of skills, know how, technical expertise and technology, as well as sufficient added value for the EU.

When setting up such funding instruments, **non-price criteria such as resilience requirements will be considered, both for EU and Member State funding**.

European content requirements on battery cells and components in EVs sold in the EU will be addressed in upcoming legislation, including the Industrial Decarbonisation Accelerator Act and the Circular Economy Act, in line with the Union's international legal commitments. These requirements will reflect the expected gradual ramp-up curve of domestic production capacity.

The new State Aid Framework will provide possibilities for Member States to further incentivize private investors through the de-risking of investments in portfolios of projects. Member States may also introduce tax incentives in the form of accelerated depreciation, including immediate expensing, for the acquisition of clean technology equipment required for the transition to a net-zero economy.

The Commission will explore additional practical ways to support European battery manufacturing during the critical scale-up phase, including via providing, on request, guidance on possibilities for closer cooperation between battery industry players in compliance with EU competition rules. The Commission will assess how and to what extent standardisation interventions, especially regarding battery design, could be beneficial for the European battery ecosystem to reach economies of scale. The Commission will also provide clarity on a simple calculation method for the battery carbon footprint as soon as possible.

Battery raw materials and refining

European automotive players need reliable and secure access to low-cost raw and refined materials. At the same time, value-added in these activities needs to be localized in Europe.

Through the Critical Raw Materials Act (CRMA), the Commission will present in March 2025 a list of Strategic Projects covering, first and foremost, the production of battery raw materials at all stages of the value chain. Such projects will benefit from streamlined permitting procedures, access to finance and offtake agreements will be facilitated. In parallel, via its 14 strategic partnerships on raw materials, ranging from Chile to the Democratic Republic of Congo, the Commission is supporting joint investments along the CRM value chain.[5] The Commission is launching first calls in 2025 under the platform aggregating the supply and demand of some CRM. This will increase CRM availability and market transparency.

But more is needed. In the Clean Industrial Deal, the Commission announced the launch of a Critical Raw Materials Centre in 2026 to aggregate supply and demand. In addition, the EU Commission stands ready to facilitate **joint private sector investments into the upstream value chain**, allowing participating automotive players to benefit from significantly de-risked and lower-cost materials supply.

The application for **streamlined permitting procedures for battery raw materials and refining projects should be expanded** beyond the already identified Strategic Projects. As such, the Commission encourages Member States and regional authorities to apply streamlined procedures to all domestic projects along the battery raw materials supply chain.

[5] For instance, about EUR 10 billion of mutually reinforcing investments were secured between the EU and Canada along the battery supply chain with our EU-Canada strategic partnership.

The Commission will explore to what extent additional support for domestic battery material refining and processing ventures (e.g. downstream from lithium carbonate) would be helpful. The Commission will work to mobilise the public financial institutions to provide guarantee and de-risk offtake agreements and other long-term contracts along the battery materials supply chain.

Boosting circularity of the automotive supply chain

The transition to circular economy is key to decrease raw-material dependency and increase strategic autonomy and resilience of the automotive supply chain, including the European battery ecosystem. The Batteries Regulation provides a framework for this. However, the business case for a comprehensive recycling value chain in Europe needs to be further strengthened. Significant investment is needed in both pre-treatment and post-treatment recycling capacities, more advanced recycling technologies need to be developed, and availability of recycling feedstock (i.e. waste batteries and high-quality metal crap) should be ensured. To this end, the Commission will **look into financing support for end-of-life vehicles and battery recycling facilities.**

The Commission will explore further actions to enhance industry cooperation in the recycling of raw materials, in line with the EU competition rules**.** To this end, the Commission will soon launch a fact-finding exercise to gather input from market participants.

In order to protect the environment from hazardous waste, the Commission adopts, together with the present Action Plan, a Decision under the Waste Framework Directive clarifying that, when becoming waste, black mass shall be classified as hazardous waste. This will lead to **better control of shipments of black mass, and especially a ban on its export to non-OECD countries**. Increased access to battery black mass will also boost battery recycling. Additional measures to facilitate intra-EU shipments and impose further restrictions on export will be considered.

Last but not least, a quick finalisation of the **co-decision process on the End-of-Life of Vehicles Regulation will** stimulate circularity in the automotive industry and improve the availability of secondary materials and affordable used spare parts.

Promote European production of components

To boost the European production of key vehicle components, any public support benefitting the automotive industry will be made conditional on resilience and sustainability criteria to be proposed under the Industrial Decarbonisation Accelerator Act in Q4 2025. The Commission will also assess whether such criteria could also be applied in private procurement. Such an approach is also essential in view of the increasing demand for vehicle components from the defence sector, where a stable and secure supply of critical parts is essential. Increasing the European production of vehicle components should also reduce the risk of potential security vulnerabilities, ensuring the integrity of critical systems. For economic security reasons, this will also be important for e-powertrain components as well as other key components for connected and automated vehicles.

Flagship Actions:
Comprehensive "Battery Booster" Package: support for battery manufacturing under Innovation Fund, exploring EU direct production support to companies producing batteries in the EU possibly combined with state aid, non-price criteria, European content requirements, in line with the Union's international legal commitments.
Facilitate joint private sector investments into the upstream value chain.
Other Actions:
Rapid finalization of Co-Decision on the End-of-Life of Vehicles Regulation.
Look into financing support for end-of-life vehicles and battery recycling facilities.
Further support to enhance recycling.
Resilience and sustainability criteria for key vehicle components.

2.4 Skills and social dimension

Recent production and demand shifts in the global economy, as well as economic shocks and geopolitical risks and uncertainties significantly impacted employment in the EU automotive sector. Further job losses are expected in the coming years. Furthermore, skills shortages and mismatches in the auto industry are a major concern, together with the ageing workforce and a pressing need to train and attract new profiles of workers with adequate skills. Social partners play a central role in anticipating and managing change and collective bargaining agreements can bring solutions to the employment and social consequences of the challenges the automotive sector is facing.

There are currently several initiatives at EU level that can address these issues, notably funding from the European Social Fund Plus (ESF+) and the European Globalisation Fund (EGF). The initiatives on skills development, such as the Pact for Skills and the Automotive Skills Alliance, prepare workers during the ongoing deep transitions. But more is needed.

The Commission will set up a **European Fair Transition Observatory** to develop and collate relevant data, including projecting employment trends across the European automotive value chain and at sectoral and regional levels. Combined with data on the demographic structure of the workforce, this will allow to pinpoint expected future "hot spots" of employment dislocations and inform forward-looking interventions to address them.

To ensure better support for workers affected by the transitions, the Commission will propose in spring 2025 a **targeted amendment to the EGF Regulation to make it faster and broader**. The scope of EGF will be extended to support companies in restructuring processes to protect employees against the risk of unemployment. This may lead to an earlier mobilisation of available funds. In parallel, the Commission is preparing, in consultation with social partners, a Quality Jobs Roadmap to be published towards the end of the year.

To help Member States and sectoral partners make even better use of the opportunities offered by the **ESF+**, the Commission will actively engage with social partners and with Member States to draw attention to the opportunities offered by ESF+, and to bring actors together. This will include support for workers looking for job opportunities in areas other than the automotive sector and

seek reskilling. In addition, the mid-term review of ESF+ will be used to incentivise Member States to reprogramme more money for the automotive sector, including through a possible change to the ESF+ Regulation.

Aligned with the Union of Skills, **the framework for sectoral skills initiatives in strategic industries that enable the Clean Industrial Deal will be reinforced**. In 2026, targeted support through Erasmus+ grants of up to EUR 90 million will be made available for the relevant Large-Scale Skills Partnerships, including the Automotive Large-Scale Skills Partnership under the Pact for Skills.

Flagship Actions:
European Fair Transition Observatory.
Legal amendments to EGF and ESF+ Regulations.

2.5 Boosting our market access, ensuring a level playing field and guaranteeing our economic security

The automotive industry is a global business. Exports, imports and investments play a key role for the EU industry's competitiveness. Overseas market access, a level playing field vis-à-vis overseas competitors, and a fit-for-purpose business and regulatory environment is critical for the industry's success. Towards this end, the EU will pursue several priority actions specific to the automotive sector.

Diversifying sourcing and securing access to third-country markets and enhancing economic security

The Commission is determined to pursue its Free Trade Agreements and mutually beneficial international partnerships to enhance market access and sourcing opportunities, notably for critical materials for the European automotive industry. The Commission will evaluate the effectiveness of car-relevant disciplines in trade agreements and, where necessary, engage with trading partners to further pursue regulatory convergence based on international standards. The Commission will use all possibilities, together with stakeholders, to better support the sector through other forms of engagement, such as Mutual Recognition Agreements, Critical Raw Materials Strategic Partnerships or Clean Trade and Investment Partnerships. As recommended in the Draghi Report, the Commission will continue promoting the harmonisation of technical vehicle regulations on global level (UNECE) and in bilateral trade agreements.

Level playing field package

The Commission will ensure continued improvements to the level playing field through a strengthened toolbox, consisting of the following elements.

Rules of Origin

Preferential rules of origin determine the conditions for products to benefit from zero or reduced duty rate in trade agreements and in autonomous preferential regimes. They intend to strike a balance between exporting and importing objectives, also to be analysed in terms of supply chain cumulation. The Commission will engage with the industry and Member States on the **approach**

applied to preferential rules of origin to ensure that they contribute and support the long-term competitiveness of the EU automotive sector.

The Commission will look into defining **specific rules of origin in trade defence measures** for the EVs ecosystem as a tool to discourage players engaged in unfair practices from establishing facilities in third countries and especially in countries enjoying preferential access in the EU market.

Trade defence instruments

The Commission imposed countervailing duties against Chinese electric vehicle imports to address unfair trading practices and remains ready to launch an anti-circumvention investigation if it receives sufficient evidence of circumventing practices undermining the effectiveness of the measure. In addition, the Commission remains open to continue its engagement with individual producers on price undertakings for the countervailing measures on battery electric vehicles from China, in accordance with the basic Anti-subsidy Regulation.

The Commission is equally committed to make use of **Trade Defence Instruments** and the **Foreign Subsidies Regulation** to investigate unfair practices further up the supply chain, including in the batteries and parts segment where necessary.

Strengthen the contribution of foreign investments to European competitiveness

The Commission will work to ensure that foreign investments in the automotive sector provide a stronger contribution to the long-term competitiveness of EU industry, its technological edge and economic resilience, and the creation of quality jobs in the EU. Accordingly, **the Commission will propose, in cooperation with Member States and the industry, conditions for inbound foreign investments in the automotive sector to further increase their added value for the EU.** The conditions could include, for example, joint venture requirements, senior management requirements, facilitating agreements that support the needs of EU industry (such as off-take or license services and royalty agreements with foreign partners), licensing of technology or intellectual property, commitments to supply critical inputs. One of the priority areas for this will be the battery supply chain.

While work on foreign investments is ongoing, the Commission and Member States will ensure that foreign direct investments are used to create added value in Europe, especially when public financing is involved, and require clear conditions that help close the gap in production know-how and expertise, including via effective mechanisms for IP and skills transfer as well as EU-based staff recruitment and local supply chains.

Simplification package

The existing regulatory framework brings predictability and helps to achieve our shared public policy objectives. It should, however, not put undue burden and costs on the industry, in particular for SMEs in the supply chain and the aftermarket. In the context of the regulatory simplification agenda, the Commission in consultation with stakeholders will take action on a **regulatory simplification package for the automotive industry**, by improving coherence and consistency between different regulatory requirements. Furthermore, the Commission is committed to give, when making new legislative proposals, sufficient lead time for the industry to reflect these new regulatory requirements for motor vehicles in the product development process. An evaluation of

the regulation on the approval and market surveillance of motor vehicles (i.e. type-approval legislation) in 2026 will have a particular focus on the simplification potential.

The enforcement of the regulatory framework for motor vehicles is important to ensure a level playing field and avoid circumvention of the applicable EU rules across the board. This is primarily a responsibility for national type-approval authorities, but the Commission will work with Member States to address potential gaps in the regulatory framework, e.g. in individual vehicle approval schemes.

Flagship Actions:

Explore conditions for inbound foreign investments in the automotive sector, including when public funding is involved.

Regulatory simplification.

Other Actions:

Continue to pursue FTA and mutually beneficial international partnerships negotiations to enhance market access and sourcing opportunities for the EU automotive industry.

Develop further cooperation through Clean Trade and Investment Partnerships and Strategic Partnerships to secure better access to battery minerals.

Engage with the industry and Member States on the approach applied to preferential rules of origin in the context of FTAs

Look into defining specific rules of origin in trade defence measures for the EVs ecosystem.

Monitor the application of the anti-subsidy measure addressing the Chinese electric vehicle imports and undertake an anti-circumvention investigation when warranted.

Make use of the Trade Defence Instruments and the Foreign Subsidies Regulation to address unfair practices in the batteries segment and part segments where necessary.

3. Conclusion – next steps

The Commission will inform the European Parliament and the Council about this Action Plan and the actions proposed and calls on them to enable a swift implementation of targeted amendments proposed.

This Action Plan is based on valuable input gathered from companies in the automotive sector, business associations and civil society representatives and researchers during the dialogues and roundtables, as well as the open public consultation[6]. Careful monitoring and swift implementation of the measures proposed is now of the utmost importance. The Commission will continue to work with stakeholders by convening regular dialogues, with a view to have an exchange on the implementation of the short- and mid-term measures that are outlined in the plan, and to collect feedback and information on recent developments in the market.

[6] https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14487-Future-of-the-European-automotive-industry/public-consultation_en.