Committee: Council of the European Union (EU)

Topic: Reassessing the CO2 Emission Standards of the Transport Sector

Student Officer: Vassilis Paraskevopoulos

Position: Deputy President

PERSONAL INTRODUCTION

Dear Delegates,

My name is Vassilis Paraskevopoulos and I am a 10th grader from the 2nd High School of Thessaloniki and I will be serving as the Deputy President of the Council of the European Union (EU). It is a great honour to welcome you to this year's 9th Deutsche Schule Thessaloniki Model United Nations conference.

Firstly, I would like to congratulate you for choosing to attend this conference. Drawing from past experience, I can assure you that this journey will be nothing short of exceptional. You will not only debate and draft resolutions but you will craft meaningful friendships. Furthermore, through these conferences you gain meaningful insight into the world of global politics and diplomacy.

This year's agenda consists of three very vital and highly debatable issues that the European Union needs to address to foster greater cooperation between member states.. This study guide covers the topic "Reassessing the CO2 Emission Standards of the Transport Sector". This study guide offers essential content on the topic, however you are encouraged to carry out additional research to better grasp and understand the topic. The bibliography may prove beneficial to your research.

Should you have any questions regarding the topic, do not hesitate to contact me via my email; basiles324@gmail.com.

Sincerely,

Vassilis Paraskevopoulos

TOPIC INTRODUCTION

Reducing Carbon Dioxide (CO_2) emissions is a major policy goal in the European Union, as it is linked to climate change and the protection of the environment and public health. Moreover the regulation of vehicle emissions functions as the cornerstone of EU environmental policy, thus, any failure to regulate emissions effectively, enforce standards or ensure compliance by manufacturers is a direct threat to the climate policy of the EU.

In recent years, the European Union made significant steps to combat emissions from light-duty vehicles, especially through the revision of CO_2 emission performance standards for cars and vans. These measures aim to introduce ambitious goals and promote the transition to zero-emission vehicles, which includes the gradual phase-out of new petrol and diesel cars by 2035. Additionally, new labels are being developed to inform consumers and encourage the adoption of cleaner vehicles across the EU. However, despite these efforts, challenges remain in both implementation and effectiveness.

One of the major issues undermining EU emission policies is the legacy of the 'Dieselgate' scandal, which revealed widespread manipulation of emissions tests by car manufacturers. Vehicles that complied with standards were found to emit higher levels of pollutants.

Furthermore, the consequences of extensive vehicle emissions go beyond environmental damage. Excessive emissions are a public health danger, diesel emissions have been linked to tens of thousands of premature deaths across Europe, emphasizing the urgency of effective regulation and enforcement . Despite rulings by the Court of Justice of the European Union (CJEU) clarifying the illegality of such practices, many high-emitting vehicles remain on European roads, demonstrating a gap between legislation and practical enforcement.

DEFINITION OF KEY TERMS

Alternative Fuels

"Alternative fuel refers to any energy source used to power vehicles, ships, aircraft, or industrial equipment that serves as a substitute for conventional fossil fuels such as gasoline, diesel, or heavy fuel oil (HFO). These fuels are typically chosen for their potential to reduce greenhouse gas (GHG) emissions, enhance energy security, and support energy diversification." [HyFive][1]

Bioliquids

[1] HyFIVE. (2025a, June 23). Hy5.Energy. https://www.hy5.energy/glossary/alternative-fuel/

"Bioliquids are liquid transport fuels, such as biodiesel and bioethanol, made from biomass. They serve as a renewable alternative to fossil fuels in the EU's transport sector, helping to reduce greenhouse gas emissions and improve the EU's security of supply." [EC][2]

Bus Rapid Transit

"Bus Rapid Transit (BRT) is a high-quality bus-based transit system that delivers fast and efficient service that may include dedicated lanes, busways, traffic signal priority, off-board fare collection, elevated platforms and enhanced stations" [USDOT][3]

Decarbonisation

"Decarbonization is defined as the process by which entities achieve a low-carbon economy or individuals reduce their carbon impact, aiming for net-zero emissions by 2050 through various strategies and commitments." [SD][4]

Defeat Devices

"Defeat Devices are a regulatory testing procedure designed to measure the pollutants a vehicle actually emits on public roads under everyday conditions, bridging the gap between artificial lab tests and real-life driving." [LII][5]

Dieselgate

"Dieselgate was a scandal in which diesel passenger vehicles were found to emit far higher levels of pollutants during real-world driving than in laboratory tests due to software designed to cheat emissions measurements ,referred to as "defeat devices"." [BBC][6]

Heavy Fuel Oil (HFO)

"Heavy Fuel Oil is a complex group of hydrocarbon products often referred to as "refinery residuals" because they consist of the highly viscous and tarry residues of the crude oil refining process from which the "lighter" more volatile components (e.g.petrol, diesel) have been distilled off. " [HFOFA][7]

Electric Vehicles

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[2] European Commission. (2023). Biofuels. In energy.ec.europa.eu. https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/biofuels_en

[3]Bus rapid transit. (2020). Usdot. http://www.transit.dot.gov/research-innovation/bus-rapid-transit

[4] Decarbonization - an overview | ScienceDirect Topics. (n.d.-a). Www.Sciencedirect.Com. Retrieved July 11, 2026, from https://www.sciencedirect.com/topics/economics-econometrics-and-finance/decarbonization

[5] Office of the Law Revision Counsel. (2026). § 7522. LII / Legal Information Institute. https://www.law.cornell.edu/uscode/text/42/7522#a_3_b

[6] Hotten, R. (2015, Dezember 10). Volkswagen: The scandal explained. BBC News. https://www.bbc.com/news/business-34324772

[7] What is heavy fuel oil? - HFO-Free arctic. (2017, January 10). HFO-Free Arctic. https://www.hfofreearctic.org/hrf_faq/heavy-fuel-oil/#_ftnref1.

"Electric vehicles (EV) are defined as vehicles that operate fully or partially on electricity, contributing to the energy transition and offering advantages such as lower maintenance costs, enhanced comfort, and higher efficiency when powered by renewable energy". [SD][8]

Electrification

"Electrification converts an energy-consuming device, system, or sector from non-electric sources of energy to electricity. It's an emerging economy-wide decarbonization strategy that is beginning to impact the electric power industry." [USDOE][9]

Emissions

"Emissions are an amount of a substance that is produced and sent out into the air that is harmful to the environment, especially carbon dioxide." [Cambridge Dictionary][10]

Emissions Trading

"A region, country or group of countries agree on a cap to the amount of CO2 allowed to be emitted in a certain time frame. The emissions generated by an industrial activity falling within the scope of the system will have to be matched with a corresponding number of carbon certificates. In the EU, for instance, one allowance equals one ton of CO2 equivalent." [Eurelectric][11]

EU Directive

"A directive is a legislative act that sets out a goal that EU countries must achieve. However, it is up to the individual countries to devise their own laws on how to reach these goals" [EU][12]

EU Regulation

"An EU regulation is a legal rule that applies directly in all 27 member states. National governments do not have to translate, or: transpose, it into their own legal systems. This ensures consistency: the rules are exactly the same in every country and can be enforced immediately." [EU][13]

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[8] A. Nanaki, E. (2021). Electric Vehicles - an overview | ScienceDirect Topics. Www.Sciencedirect.Com. https://www.sciencedirect.com/topics/social-sciences/electric-vehicles

[9] What is Electrification? (2025h). In Energy.gov. https://www.energy.gov/grid-talk/what-electrification

[10] Emission. (n.d.). Dictionary.Cambridge.Org. Retrieved July 11, 2026, from https://dictionary.cambridge.org/dictionary/english/emission

[11] What is an emission trading system? (2025c). In Eurelectric - Powering People. https://www.eurelectric.org/in-detail/what-is-an-emission-trading-system/

[12] European Union. (2024). Types of legislation. European-Union.Europa.Eu. https://european-union.europa.eu/institutions-law-budget/law/types-legislation_en

[13] From EU regulation to directive: What is the difference and why does it matter? (2021). In Europeanimpact.eu.https://europeanimpact.eu/newsroom/from-eu-regulation-to-directive-whats-the-difference-and-why-does-it-matter

Fossil Fuels

"Fossil fuels are compound mixtures made of fossilized plant and animal remnants from millions of years ago. The creation of fossil fuels—either oil, natural gas, or coal—from these fossils is determined by the type of fossil, the amount of heat, and the amount of pressure." [Smithsonian][14]

Heavy Duty Transport

"Heavy transport is the transportation of goods or machinery that are heavier than standard freight transport can handle. This type of transport is used for large, heavy or industrial loads that require special vehicles, adjusted routes or additional permits." [AG][15]

Price Differential

"the difference in price between two products, or the difference in prices in different places when the same product is sold in more than one place" [Cambridge][16]

Statistical Transfer

"A statistical transfer is the administrative purchase by one European member state of a quantity of renewable energy from another member state that has achieved its target and has a surplus. Such a transfer does not involve any physical flow of renewable energy. The principle of statistical transfers was already agreed in 2009 in the first version of the EU Renewable Energy Directive due to its flexibility and cost efficiency potential." [SN][17]

BACKGROUND INFORMATION

Trends of Emissions in Europe

Transport emissions in the European Union have followed a distinct trajectory over the past decades. While emissions in the energy sector have declined, transport emissions increased steadily from the 1990s until around 2007, driven by rising demand for passenger and freight transport. Road transport has been the dominant contributor, accounting for the majority of greenhouse gas emissions within the sector. Although there was a temporary

[14]Smithsonian. (2021). What are fossil fuels? | Smithsonian Ocean. In ocean.si.edu. Smithsonian. https://ocean.si.edu/conservation/gulf-oil-spill/what-are-fossil-fuels

[15] Axell Group. (2026a, Mai 21). Axell Group EN. https://axell-group.com/en/knowledge-base/what-is-heavy-transport/

[16] Cambridge Dictionary. (2026, August 17). Price differential. CambridgeWords. https://dictionary.cambridge.org/dictionary/english/price-differential#google_vignette

[17] Statistical transfer. (2026b). Statistics Netherlands. https://www.cbs.nl/en-gb/news/2022/26/lower-renewable-energy-share-despite-more-solar-and-wind-energy/statistical-transfer

decline during the 2008 financial crisis [EU][18] and again during the COVID-19 pandemic [Science Direct][19]. This persistent trend has made transport one of the most challenging areas for decarbonisation and a key focus of EU climate policy, including measures such as Regulation (EU) 2019/631.

The Dieselgate Scandal

The Dieselgate scandal happened in 2015 when Volkswagen had installed 'defeat devices' in millions of diesel vehicles to manipulate emissions tests. These devices allowed cars to meet regulatory standards during laboratory testing while emitting significantly higher levels of nitrogen oxides (NOx) during real-world circumstances. Nitrogen oxides harm the environment by reacting in the atmosphere to create ground-level smog and acid rain, which damage plant life, acidify soils and waterways, and reduce biodiversity [DES][20]. Furthermore, nitrogen oxide inflames human airways, triggering severe asthma attacks, reducing lung function, and reacting in the air to create dangerous secondary pollutants like ozone and fine particulate matter [EPA][21]. The scandal quickly expanded beyond Volkswagen, raising concerns about testing practices across the automotive industry. The scandal led to wide outrage by the European Union.

The Cause of Emissions in the Transport Sector

Emissions in the transport sector in Europe are driven by the reliance on fossil fuels, particularly in road transport, which accounts for the biggest share of greenhouse gas emissions [OWID][22]. Most vehicles are still reliant on petrol leading to significant CO_2 emissions.The increase in people travelling with automobiles and freight being transported with ships has led to significant growth of greenhouse emissions. This trend has cut back on growth made by the European Union.

Another major cause is that most people still prefer using their cars rather than using more sustainable alternatives like rail or bicycles. Bicycle use is more sustainable for the environment due to producing zero emissions. A reliable public transportation system can also help reduce emissions due to people not taking their personal cars. Many cities with

[18] Road Freight Transport Down by 10% and Rail Freight by 17% In 2009. https://ec.europa.eu/eurostat/documents/2995521/5034646/7-22032011-AP-EN.PDF/5081aa93-d55f-4eb3-afa2-59e1b7a64376?version=1.0. Zugegriffen 16 Aug. 2026.

[19] Du, Jianhe, u. a. „COVID-19 Pandemic Impacts on Traffic System Delay, Fuel Consumption and Emissions". International Journal of Transportation Science and Technology, Bd. 10, Nr. 2, 2 Dez. 2020, S. 184–196, https://www.sciencedirect.com/science/article/pii/S2046043020300769?via%3Dihub, 10.1016/j.ijtst.2020.11.003. Zugegriffen 16 Aug. 2026.

[20] c=AU; o=The State of Queensland; ou=Department of Environment and Science; "Nitrogen Oxides." Queensland Government, corporateName=The State of Queensland; jurisdiction=Queensland, 17 Jan. 2025, www.qld.gov.au/environment/management/monitoring/air/air-pollution/pollutants/nitrogen-oxides. Accessed 17 Aug. 2026.

[21] "Basic Information about NO2." EPA, Environmental Protection Agency, www.epa.gov/no2-pollution/basic-information-about-no2.Accessed 17 Aug. 2026.

[22] Ritchie, Hannah. "Cars, Planes, Trains: Where Do Co_2 Emissions from Transport Come From?" Our World in Data, 6 Oct. 2020, ourworldindata.org/co2-emissions-from-transport. Accessed 16 Aug. 2026.

reliable public scores tend to find themselves in a high place in the air quality index. The carbon of travel per kilometer in London is significantly lower for metro users (28g) and cyclists (16-50g) rather than petrol car users (170g) [OWD][23]. Many European cities shift their focus towards public transport systems and cyclists rather than their car-centered past. In Stockholm the implementation of a low-emission zone (LEZ) and a charging scheme to reduce congestion in the city centre and along main access routes which extends beyond the LEZ limits has reduced traffic volumes by between 20 and 25% and a reduction of carbon dioxide emissions by 14% [EU][24]. In many regions, limited availability of public transport systems reinforces dependence on cars.

Technological challenges have also played a role. Past reliance on laboratory-based emissions testing revealed differences between official and real-world emissions, delaying effective policy action. Furthermore, the slow deployment of alternative fuels infrastructure, as mentioned by Directive 2014/94/EU, has limited the uptake of low-emission vehicles. Car manufacturers across Europe have taken action to implement these regulations set by the EU. Car manufacturers have expanded battery production and invested in hydrogen technologies for heavy-duty transport. Market share rose to 13.9% for battery electric cars and 24.3% for hybrid models [ACEA][25]. The European car industry invested 72.8 billion euros in research and development in 2022 alone. [ACEA][26] Even with investment by the car industry less than 4% of cars in the EU are electrically chargeable. In 2024 new light vehicles were 84.5% petrol powered of new vehicles registered with only 9.6% being electrically chargeable. The percentage in trucks is even smaller with only 4.9% of new vehicles registered being electrically chargeable. In 2024 over half of imported battery vehicles were of Chinese origin accounting for a little bit over 8 billion euros. [ACEA][27]

Finally, emissions from commuter flights and maritime transport have made major setbacks to the sector's overall growth. Although smaller in share compared to road transport, these ways of transport are growing rapidly and are more difficult to decarbonise due to technological and fuel constraints. Together, these factors explain why transport remains one of the most challenging sectors for emission reduction in Europe**.** [FER][28]

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[23] Ritchie, H. (2023). Which form of transport has the smallest carbon footprint? In Our World in Data. https://ourworldindata.org/travel-carbon-footprint

[24] Stockholm: Achieving sustainable mobility using urban vehicle access regulations. (2018b, März 19). EU Urban Mobility Observatory. https://urban-mobility-observatory.transport.ec.europa.eu/resources/case-studies/stockholm-achieving-sustainable-mobility-using-urban-vehicle-access-regulations_en?prefLang=mt&utm_

[25] ---. ACEA - European Automobile Manufacturers" Association, 28 Apr. 2023, https://www.acea.auto/message-dg/smarter-regulation-for-a-globally-competitive-european-auto-industry/. Zugegriffen 20 Aug. 2026.

[26] ---. ACEA - European Automobile Manufacturers Association, 11 Sep. 2024, https://acea.auto/figure/rd-investment-in-the-automobile-sector-by-world-region. Zugegriffen 20 Aug. 2026.

[27] Pocket Report. Acea.Auto, 2026, http://www.acea.auto/files/ACEA-Pocket-Guide-2025-2026.pdf. Zugegriffen 20 Aug. 2026

[28] Gómez Vilchez, Jonatan J., u. a. „An Analysis of Trends and Policies Supporting Alternative Fuels for Road Freight Transport in Europe". Frontiers in Energy Research, Bd. 10, 27 Sep. 2022, 10.3389/fenrg.2022.897916.

Current Challenges

Despite significant progress in climate policies development, reducing emissions from the transport sector remains one of the biggest challenges for the European Union. One of the main difficulties is the dependence on fossil fuels, particularly petrol, which still dominates road transport. Although electric vehicle adoption is increasing, the transition is limited by high vehicle costs and unequal access to needed infrastructure across Member States.

A major challenge is the need to expand and modernise transport infrastructure. There are many ways to modernize transport infrastructure. Many cities have chosen to implement different solutions. Some European cities have chosen to rebuild their 20th century tram networks to help ease traffic congestion in the city. This solution is cheaper than building a brand new subway system. A downside is that the tram is not fixed, it may get stuck in traffic. Some cities have also expanded the reach of the bicycle lanes. This serves as a very affordable and environmentally friendly and can serve as a realistic measure to ease air pollution and traffic congestion. Some bigger cities have chosen to build a traditional subway system. Even though it is the most reliable system to help with traffic problems, it comes with extraordinary costs that many cities simply can not afford. The deployment of charging stations, hydrogen refueling networks which cost around 1-3 million euros per station. [Hydrogen Europe][29] Hydrogen mobility is concentrated in the European North as in the European South there are only 6 charging stations [Hydrogen Europe][30]. For a passenger-car hydrogen station and alternative fuel infrastructure requires investment and coordination between governments, industries, and energy providers. Differences in economies between EU countries create uneven progress, with some Member States being able to transition faster than others. The European North and South commute in different ways. In the European North, people are more used to public transportation and will favor taking the bus or the metro instead of taking their car. This pattern is different in the European South where people will favor taking their cars rather than public transport leading to major cities in the European South being on average more congested. This can be seen in the traffic index where Athens scores 10% higher (54.7%) than Berlin (44.6%) and 14% higher than Copenhagen [Traffic Index][31].

Another challenge is balancing climate objectives with economic and industrial interests . European manufacturers are in favour of the overall goal of climate neutrality and

[29] „Hydrogen Fueling Station Market". BrandEssence® Market Research, 2026, https://brandessenceresearch.com/heavy-industry/hydrogen-fueling-station-market?srsltid=AfmBOopK0z1oLT5XedVviccj13ygebdC2l8YP6gUsLPJi-RBXOpX9BXh. Zugegriffen 20 Aug. 2026.

[30] Hydrogen refuelling stations | European hydrogen observatory. (o. J.-d). In observatory.clean-hydrogen.europa.eu. Abgerufen 20. August 2026, von https://observatory.clean-hydrogen.europa.eu/hydrogen-landscape/distribution-and-storage/hydrogen-refuelling-stations

[31] TomTom International BV. (2023). Traffic congestion ranking | TomTom traffic index. In www.tomtom.com. https://www.tomtom.com/traffic-index/ranking/

accept that electrification is the main direction of travel. However, they argue that the transition needs to be more flexible and economically realistic. [ACEA][32] Environmental Groups generally want stronger regulations rather than weaker ones. Their position is that battery-electric vehicles are currently the most efficient zero-emission technology for passenger cars and that the EU should maintain the 2035 phase-out of new fossil-fuel cars. The European automotive sector is a major employer and economic force, meaning that stricter emission regulations require significant adaptation from manufacturers and workers. The automotive industry is enormous in Europe, providing around 13.8 million direct and indirect jobs, including about 2.6 million in vehicle manufacturing. [EC][33] A slower transition could protect some jobs in traditional engine, transmission and component manufacturing because internal-combustion vehicles are more labour-intensive. A more flexible, car-friendly approach could give European manufacturers more time to adapt, reduce compliance costs and allow them to continue selling profitable hybrid and combustion-engine models. This could be useful for manufacturers struggling to compete with cheaper EV producers. If manufacturers are allowed to sell more petrol and diesel vehicles for longer, CO_2 emissions would probably be higher than under a faster electrification pathway. It would also delay reductions in urban air pollutants such as NOx and particulate matter. Countries with strong automotive industries or economies more dependent on conventional vehicles often advocate for a gradual transition to avoid economic disruption. Gradual Transition involves maintaining climate goals while giving the car industry more flexibility, financial support, time, and investment in EVs, batteries, charging infrastructure and worker retraining. It is realistic if flexibility encourages adaptation, but could become an excuse for delaying electrification. Countries with larger car industries favour this gradual transition. Current evidence suggests that hydrogen is unlikely to become the dominant technology for passenger cars in Europe. Although hydrogen vehicles can be refuelled quickly and offer long driving ranges, they remain expensive, and both hydrogen fuel and refuelling infrastructure are costly.

The increasing demand for mobility also creates difficulties. Growth in freight transport, international intra-EU and domestic freight transport activity has increased significantly in the EU-27 in the last 28 years, growing by 43% between 1995 and 2023 and E-commerce, In 2024, 77% of internet users bought goods or services online, the share of e-shoppers grew from 57% in 2010 to 77% in 2024, an increase of 20 percentage points (pp) continues to increase energy consumption and emissions, reducing the impact of efficiency

[32] ACEA - European Automobile Manufacturers“ Association, 7 Nov. 2025, http://acea.auto/news/2030-2035-targets-for-cars-and-vans-not-achievable-europe-needs-smarter-regulatory-path-and-distinct-approach. Zugegriffen 20 Aug. 2026.

[33] European Commission. (2024). Automotive industry. In single-market-economy.ec.europa.eu. https://single-market-economy.ec.europa.eu/sectors/automotive-industry_en

improvements [EU][34]. Urban congestion and the high use of private vehicles remain significant barriers to achieving emission reductions.

Finally, there are technological and policy challenges, including ensuring sufficient renewable electricity supply for vehicle electrification, developing sustainable alternatives for aviation and maritime transport, and maintaining public support for climate measures. Addressing these challenges requires coordinated EU-wide action, financial support for less prepared regions, and a combination of solutions including electrification, renewable fuels, improved public transport, and changes in mobility behaviour.

MAJOR COUNTRIES AND ORGANISATIONS INVOLVED

France

France has an ambitious stance on reducing emissions in the transport sector following closely the European Union's climate objectives. It advocates for strict CO_2 reduction targets and advocates for a fast transition to low-emission mobility through investments in infrastructure. France also advocates for the role of public transport and urban mobility solutions to reduce reliance on private cars. France has provided economic aid to consumers buying electric vehicles[In Europa.eu][35]. France is continuing to modernise its fleet: 22 new electric Oxygène trainsets are being built to replace older Corail trains from 2028[SNCF][36]. Furthermore it advocates for policies that promote green development and innovation in industry and the development of clean technologies, with the goal of balancing environmental goals with a competitive economy.Overall, France's approach combines strict regulations with investments in sustainable transport systems and technological advancement.

Germany

Germany has an ambitious stance on the reduction of emissions in the transport sector, aligning with EU climate goals. It supports CO_2 reduction targets and promotes the fast adoption of low- and zero-emission vehicles, in particular electric vehicles. Germany invests in renewable energy to support electrification, while also promoting innovation in clean transport technologies such as hydrogen. At the same time, Germany balances environmental objectives with the interests of its automotive industry, often advocating for

[34]Freight transport activity. (2025b). In Europa.eu. https://www.eea.europa.eu/en/analysis/publications/sustainability-of-europes-mobility-systems-2025/freight-transport-activity

[35] "Electric passenger vehicle boost" bonus. (2026c). Servicepublicfr. https://www.service-public.gouv.fr/particuliers/vosdroits/F39188?lang=en

[36] „New Intercités Trainsets Arriving In 2027". SNCF, www.groupe-sncf.com/en/group/about-us/companies/sncf-voyageurs/oxygene-intercites-clermont-ferrand. Zugegriffen 20 Aug. 2026.

policies that allow industries to be flexible and a gradual transition. Germany is introducing a €3 billion socially targeted EV programme expected to support up to 800,000 electric cars, while investing another €500 million in charging infrastructure, particularly at apartment buildings.[Bundesregirung] The government also plans to continue funding the Deutschlandticket, which is estimated to save 1 million tonnes of CO_2 annually by encouraging public transport use [Bundesregierung][37]. The Deutsche Bahn has also made modernization efforts to replace the old fleet [DB][38]. Overall, Germany has a strict environmental policy with some flexible points due to its strong automobile industry.

Hungary

Hungary has a more cautious and less strict stance on the reduction of emissions in the transport sector to protect national sovereignty and maintain energy prices.Another underlying factor is Hungary's reliance to Russian fossil fuel.With the administration change and Peter Magyar's win Hungary is looking to adopt a policy closer to EU standards but still cautious due to reliance to Russia. Although it aligns itself with EU climate objectives it tends to favor flexible targets that take account for national economic conditions and energy security concerns. Hungary emphasizes a gradual and slower transition toward low-emission vehicles, while also maintaining the role of fossil fuels in the short term. The country emphasizes the need for EU financial support and investment to help countries to develop infrastructure, such as charging networks, and to help industries and consumers adapt to new technologies. Hungary has a rather advanced charging network especially around Budapest and major highways [VILLANYAUTOSOK][39]. The Automotive industry is one of the main contributors to Hungary's GDP. The country is highly integrated with European supply chains, particularly in the fields of automotive. Vehicle production is well established, and automakers continue to invest in their Hungarian operations [TRADE.GOV][40].

Italy

Italy generally adopts a realistic and moderate approach on reducing transport emissions, while supporting EU climate objectives it has doubts on how realistic these goals are and the need for infrastructure. The country recognizes the importance of decarbonising

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[37] „Klimaschutzprogramm 2026 Der Bundesregierung | Bundesregierung". Die Bundesregierung Informiert | Startseite, 25 März 2026, https://bundesregierung.de/breg-de/schwerpunkte/wirksam-regieren/klimaschutzprogramm-2026-2415928. Zugegriffen 20 Aug. 2026.

[38] „Fleet Development | Deutsche Bahn Annual Report 2025". Deutschebahn.Com, Deutsche Bahn IB 2025, 2025, https://ibir.deutschebahn.com/2025/en/combined-management-report/development-of-business-units/db-long-distance-business-unit/fleet-development. Zugegriffen 20 Aug. 2026.

[39] Traveling to Hungary with an electric car - villanyautósok. (2025e). In Villanyautósok. https://villanyautosok.hu/traveling-to-hungary-with-an-electric-car/

[40] ITA. (2024). Hungary EV green revolution reshaping country's automotive industry. In International Trade Administration | Trade.gov. https://www.trade.gov/market-intelligence/hungary-ev-green-revolution-reshaping-countrys-automotive-industry

transport and supports measures such as electric mobility, renewable fuels and improved public transport. However, Italy has often advocated for a more gradual and less rapid transition to decarbonization that takes into account the competitiveness of its automotive industry and the challenges faced by consumers and industries during the transition toward low-emission technologies. Italy also advocates for a diversified approach rather than relying exclusively on electrification.

Poland

Poland generally adopts a more cautious approach on the reduction of emissions in the transport sector, supporting EU climate objectives while taking into account economic development and other factors. While Poland advocates for the transition toward a cleaner transport sector. The country considers the development of electromobility, alternative fuels, and improved transport infrastructure but often advocates for technological flexibility rather than relying on full electrification. Poland also highlights the importance of EU financial support to help modernize transport systems, expand charging infrastructure, and assist industries and consumers during the transition towards a cleaner transport sector. Poland's electric vehicle charging network has grown rapidly, featuring widespread fast-chargers (DC) along major transit corridors like the A1, A2, and A4 highways [GUAZI][41]. Poland's automobile industry is one of the most important manufacturing sectors in Poland, accounting for 11.1 % the total value of the country's production, and is second only to the food industry. [RSM][42]

BLOCS EXPECTED

Bloc A

Bloc A consists of countries such as Germany, France, the Netherlands, Sweden and Denmark, promoting an ambitious approach to climate policy. This bloc supports strict CO_2 emission targets and stricter deadlines for achieving climate goals. It emphasizes investment in green technologies, including electric vehicles, renewable energy sources, and the expansion of charging infrastructure. In addition, the bloc advocates for strict regulatory measures to ensure compliance with emission standards, including the implementation of real-world emissions testing. Furthermore, Bloc A supports the development of sustainable public transportation, including electric buses, railways, trams and metro systems, as a means of reducing dependence on private vehicles and incentives for consumers to buy EVs.

[41] Bill. (2026, Juni 22). How EV charging in Poland really works in 2026. Guazi. https://en.guazi.com/blog/insight/ev-charging-network-poland/

[42] Liss, P. (2021). Key characteristics of the Polish automotive sector. In RSM Poland. https://www.rsm.global/poland/en/insights/doing-business-poland/key-characteristics-polish-automotive-sector

Bloc B

Bloc B consists of countries such as Poland, Hungary, the Czech Republic, and Slovakia, that support a more balanced and cautious approach to transport and climate policy. It supports more flexible emission targets that consider economic growth while emphasizing a gradual transition to low-emission technologies. This group highlights the need for increased economic assistance to ensure that the transition does not hurt national economies. It also supports a more diverse energy mix, including cleaner fossil fuels alongside the development of infrastructure that accommodates both traditional and alternative fuels.

TIMELINE OF EVENTS

Date	Description of event
11th December, 1997	The Kyoto Protocol was the first major international agreement that established legally binding greenhouse gas reduction targets for developed countries. It introduced mechanisms such as emissions trading and the Clean Development Mechanism, shaping future climate policies.
1st January, 2005	The EU ETS created the world's first large-scale carbon market. By placing a price on carbon emissions, it encouraged companies in sectors such as energy and industry to reduce emissions and invest in cleaner technologies.
18th September, 2015	The Dieselgate scandal involved major car manufacturers, notably Volkswagen, using software to cheat on emissions tests. It led to controversy and stricter regulations on vehicle emissions across the EU.
30th May, 2018	The LULUCF Regulation focuses on carbon sinks, requiring EU countries to balance emissions and removals from forests and land use, strengthening the role of nature in climate policy.

11th December, 2019	The European Green Deal is a plan by the European Union to make its economy more sustainable and achieve climate neutrality by 2050. It focuses on reducing emissions, using clean energy, and protecting the environment.
17th May, 2023	The Carbon Border Adjustment Mechanism (CBAM) is the EU's tool to put a fair price on carbon emitted during the production of carbon-intensive goods that are entering the EU, and to encourage cleaner industrial production in non-EU countries.

RELEVANT RESOLUTIONS, TREATIES AND EVENTS

Paris Agreement

The Paris Agreement is a climate treaty adopted in 2015 by countries around the globe to reduce greenhouse gas emissions and contain global warming. Its main goal is to keep the rise in global temperature below 2°C while wanting to limit it to 1.5°C. The agreement encourages nations to set their individual climate targets, transition to cleaner energy, and make bigger efforts to adapt to the changes of global warming. It also binds countries to set national targets to curb climate change and each country to review their progress every five years. EU countries are all complying with the resolution having all submitted their 2025 nationally determined commitments (NDC) but only 3 countries have are pursuing climate policies that could deliver on the promises made at the Paris climate conference[43]. The goals set by the Paris Agreement seem to not be realistic as countries achieved their NDCs by the end of the century warming would be limited to only 2.3 to 2.5 degrees celsius well above the standards set by the Paris agreement [WRI][44].

Regulation (EU) 2019/631

Regulation (EU) 2019/631 is an EU regulation that introduces stricter emission standards for new passenger cars in the EU, it sets emission targets for vehicle manufacturers, encouraging the development and adoption of low- and zero-emission vehicles. [EURLEX][45] The resolution passed with a comfortable majority as 23 members voted in favor with only 3 abstentions from Bulgaria,Italy and Romania and 1 vote against by

[43] Just three EU countries showing climate ambition in line with Paris…. (2026g). In T&E. https://www.transportenvironment.org/articles/just-three-eu-countries-showing-climate-ambition-line-paris-agreement

[44] Srouji, J. (2025). Are countries' new climate plans ambitious enough? What we know so far. In World Resources Institute. https://www.wri.org/insights/assessing-2025-ndcs

[45] EUR-Lex - 32019R0631 - EN - EUR-Lex. (o. J.-c). In eur-lex.europa.eu. Abgerufen 20. August 2026, von https://eur-lex.europa.eu/eli/reg/2019/631/oj/eng

Poland [EU][46]. The regulation made stricter CO_2 limits for new vehicles, including a 15% reduction target from 2025, this goal was achieved by Denmark, Sweden, Denmark, Finland, Belgium, Luxembourg, Portugal, Austria, France, Germany, Ireland and Malta and a 55% reduction target from 2030 in comparison with 2021 levels for passenger cars, as part of the EU's climate goals. [EU][47] Nobody has achieved the EU-wide 55% target yet. The EU is progressing towards the end goal, but emissions need to fall from 96.7 to 49.5 g/km, meaning roughly another 49% reduction from the 2025 level by 2030. It also supports the transition toward cleaner transport by promoting innovation in vehicle technologies and making contributions to the EU objective of achieving climate neutrality by 2050.

Directive 2009/28/EC on the Promotion of the Use of Energy from Renewable Sources

Directive 2009/28/EC establishes a common framework for promoting energy from renewable sources across the European Union. [EURLEX][48] It lays down rules relating to statistical transfers between Member States, joint projects between Member States and with third countries, guarantees of origin, administrative procedures, information and training, and access to the electricity grid for energy from renewable sources. It establishes sustainability criteria for biofuels and bioliquids. [ED][49] A landmark project between EU member states and third countries is the Union for the Mediterranean, launched in 2008, the Union for the Mediterranean promotes economic integration and cooperation amongst 14 countries in the region (Albania, Algeria, Bosnia & Herzegovina, Egypt, Israel, Jordan, Lebanon, Mauritania, Monaco, Montenegro, Morocco, Palestine, Tunisia and Turkey - Syria's membership is currently suspended) and the EU. [UM][50] For Energy, the goal is to create an integrated Mediterranean energy market, and to promote renewables and energy efficiency. It is done through regional energy platforms covering the 3 priority areas

EU Emissions Trading system

The European Emissions Trading System (ETS) is a climate tool of the European Union designed to reduce greenhouse gas emissions with cost in mind. It works on a "cap-and-trade" principle: a limit (cap) is set on the total amount of emissions permitted from certain sectors, like energy production and heavy industry . Over time, the cap is gradually reduced, ensuring overall emissions decline while giving businesses flexibility in

[46] Search for voting results. (2025d). In Consilium. https://www.consilium.europa.eu/en/general-secretariat/corporate-policies/transparency/voting-results/

[47] „Average CO2 Emissions From New Cars and Vans Significantly Decreased In 2025". Europa.Eu, 25 Juni 2026, https://www.eea.europa.eu/en/newsroom/news/average-co2-emissions-from-new-cars-and-vans-significantly-decreased-in-2025. Zugegriffen 20 Aug. 2026.

[48] Directive - 2009/28 - EN - renewable energy directive - EUR-Lex. (2015). In Europa.eu. https://eur-lex.europa.eu/eli/dir/2009/28/oj/eng

[49] European Directive 2009/28/EC. (2018). Public-Private-Partnership Legal Resource Center. https://ppp.worldbank.org/library/european-directive-2009-28-ec

[50] „Union for the Mediterranean". Energy, 2021, https://energy.ec.europa.eu/topics/international-cooperation/key-partner-countries-and-regions/union-mediterranean_en? Zugegriffen 19 Aug. 2026.

how they meet their targets. Over time the EU Emissions proved to be successful as emissions in ETS-covered power and industrial sectors have fallen by around 50% [EU][51].

Alternative Fuels Infrastructure Directive (2014/94/EU)

Directive 2014/94/EU establishes a framework for the development of infrastructure for alternative fuels across the European Union in order to reduce dependence on oil and alleviate the environmental impact of transport. Adopted in 2014, it requires Member States to develop national policy frameworks for the deployment of refuelling and recharging points for electricity, hydrogen, and natural gas. The directive aims to ensure a minimum level of infrastructure coverage, promote common technical standards (such as interoperable charging systems), and support the wider uptake of alternative fuel vehicles, thereby facilitating the transition toward cleaner and more sustainable mobility in the EU.

PREVIOUS ATTEMPTS TO SOLVE THE ISSUE

European Climate Law

The European Climate law drafted on March 4th 2020 aims to cut emissions by at least 50% by 2030 and down by 90% by 2050 [EU]. The Climate Law includes measures to keep track of progress and adjust the actions of member states accordingly through regular reports to the European Environmental Agency (EEA) and scientific evidence on climate change and its impacts. It also involves commitments by member states to achieve negative emissions by 2050 and stronger cohesion across the Union with the goal of climate neutrality. [CA][52]

The Electrification Action Plan

The Electrification Action Plan implemented on July 17, 2026 focuses on reducing the price gap between electricity and fossil energy costs and on incentivising the uptake of cleaner, electricity-based technologies such as heat pumps, electric vehicles and batteries, among others, across Europe. [EC][53] The Action Plan seeks to level the playing field between electricity and gas through a review on energy taxation allowing Member States to reduce certain electricity network charges for specific consumers. Their price differential often discourages the shift to cleaner options such as heat pumps, electric vehicles and electric

[51] Chapter 2 - the EU emission trading system. (2025a, November 18). Climate Action. https://climate.ec.europa.eu/areas-action/climate-strategies-targets/progress-climate-action/eu-climate-action-progress-report-2025/chapter-2-eu-emission-trading-system_en

[52] European climate law. (2026d, April 20). Climate Action. https://climate.ec.europa.eu/areas-action/european-climate-law_en

[53] Electrification. (2024b). In Energy. https://energy.ec.europa.eu/topics/eus-energy-system/electrification_en

industrial processes [EC][54]. The electrification action plan did not face major backlash from the car lobby in Brussels because it incentivizes electric car usage and innovation [ACEA][55].

Daktylios (Traffic Ring of Athens)

Daktylios was introduced in July 1979 due to the oil crisis and was firstly introduced as a measure to save fuel during the crisis. In 1982 it was made permanent by the Papandreou government to help ease traffic congestion in the center of Athens. Cars with a license plate that ends in an odd number are allowed in the Daktylios (def. 'Ring') on odd days, and cars with license plates that end in even number are allowed to drive in the center of Athens on even days. Today, the system also incorporates environmental criteria. For example, electric and hybrid vehicles, as well as certain low-emission Euro 6 vehicles, can enter the zone without the normal restriction [STEEAE] [56]. Although traffic is clearly relieved within the area, traffic conditions in the areas immediately adjacent to the dactylios worsened substantially as many Athenians choose to move around the city center [Matsoukis, E. C.][57].

European Green Deal

The European Green deal sets a plan to transform the European energy and industry sector. The Green Deal invests in innovation, clean technology, and green infrastructure while ensuring a just transition for the communities most affected. Thanks to the European Green Deal, Europeans enjoy cleaner air and more energy efficient products and homes. They are also drawing on more renewable energy sources to power their lives. [EC][58]

POSSIBLE SOLUTIONS

Electrification of Transport

The electrification of transport represents a solution for the reduction of emissions in the transport sector in the European Union. The EU could contribute to lowering dependence on fossil fuels and reducing environmental harm. A gradual shift toward

[54] Commission boosts europe\'s competitiveness, decarbonisation and independence with electrification action plan and ETS review. (2026). European Commission - European Commission. https://ec.europa.eu/commission/presscorner/detail/en/ip_26_1596

[55] European Automobile Manufacturers“ Association. (2026c, Juli 16). ACEA - European Automobile Manufacturers“ Association. https://www.acea.auto/news/urgent-call-for-ambitious-action-on-road-transport-transition-in-the-upcoming-electrification-action-plan/

[56] STEEAE. (2025, October 19). Δακτυλιοσ 2025-2026. ΣΤΕΕΑΕ | Σύνδεσμος Τουριστικών Επιχειρήσεων Ενοικιάσεως Αυτοκινήτων Ελλάδος. https://www.steea.gr/daktylios-2025-2026/?utm_

[57] Matsoukis, E. C. (2026). An assessment of vehicle restraint measures. Transportation Quarterly, 39(1). https://trid.trb.org/View/270440?utm_

[58] European Commission. (2019). The European Green Deal. European Commission; European Commission. https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en

electrified mobility, combined with complementary measures and supportive policies, may play an important role in the future transformation of European transport.

Investment in Public Transport

Investing in rail networks, urban public transport, and integrated mobility systems can reduce dependence on private cars and lower overall emissions. Encouraging walking, cycling, and shared mobility options can also contribute to reducing transport demand and congestion, particularly in urban areas. Many cities across the world have recently implemented rapid bus lanes which is a cheaper alternative to a subway or rail system. On the other hand many cities have chosen to construct a subway system to help ease traffic congestion in and around the city. For instance, the Porto Metro has managed to take 12k cars off the Roads in the Porto Metro Area and over 70.3k tones of CO2 emissions are prevented every year [Metro do Porto][59].

Use of Alternative Fuels

The development and use of alternative fuels can provide additional pathways for sectors that are difficult to electrify, such as heavy-duty transport. Renewable fuels can help reduce emissions while technologies continue to develop. The EU should incentivize passengers to step away from fossil fuels like Diesel and Petrol and to more sustainable alternatives. This can be done through competitive prices for consumers and lower taxation on importing and developing alternative fuels

Shifting Modes of Transport

Trains are significantly more energy-efficient than trucks, so shifting the transport of goods from trucks to trains can substantially reduce emissions, particularly in long-distance transportation. Additionally most European Union nations have rail systems that can cater to the change.Rail is a viable alternative to car usage. Plans for accessible low-cost international train routes can help reduce emissions from road transport. A disadvantage to the rail option is that some EU countries like Greece have underdeveloped systems that may need significant funding and development to cater to EU standards. The rail system of Greece is especially lackluster with only 41% of lines being electrified and no high speed rail system in place [EU][60]. Such major upgrades will require major funding. Only announced investments already exceed 1.5 billion euros. Greece is making steps to modernize their rail system with a new order of 23 new trains and €112 million for depots, maintenance facilities and digital systems. [GOV.GR][61] Another 124 million euros from EU cohesion funds for additional railway

[59] „The Metro Do Porto in Numbers“. English, 2024, https://en.metrodoporto.pt/pages/407. Zugegriffen 19 Aug. 2026.
[60] European Union Agency for Railways (ERA. „ERA Railway Factsheet - Greece“. Europa.Eu, 27 Juli 2026, https://www.era.europa.eu/assets/factsheets/greece/ERA_factsheet_EL.html#4_Infrastructure . Zugegriffen 19 Aug. 2026.
[61] „Press Release 22/12/2025“. Hellenic Train, 22 Dec. 2025, https://www.hellenictrain.gr/en/news/press-release-22122025-0? . Zugegriffen 19 Aug. 2026.

modernization efforts and another 670 million for upgrading railway infrastructure, signalling, telecommunications and electrification [GOV.GR][62]. Shifting the main transport mode for millions of people will take many years, it may even need to take decades. This process would be for the near future.

Lower Insurance Rates for Electric and Hybrid Vehicles

Lower insurance costs would reduce the cost of ownership of electric and hybrid vehicles, encouraging consumers to switch their petrol and diesel vehicles for low-emission vehicles. Governments could compensate insurers through targeted incentives or encourage the use of telematics and vehicle safety features to lower premiums while maintaining adequate risk coverage. Although EVs can currently be more expensive to insure due to higher repair and battery replacement costs, some insurers already offer discounts for environmentally friendly vehicles. Nowadays EV's have way higher insurance costs in comparison to petrol fueled cars. On average, electric cars cost $49 more per month than SUVsc [GOV.FR][63]. France has introduced lower insurance rates for electric vehicles under the Electric Passenger Vehicle Boost where the government can either reduce the price of the vehicle with an invoice or pay after the purchase. [SPFR][64]

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