

Paving the way to carbon-neutral transport

10-point plan to help implement
the European Green Deal



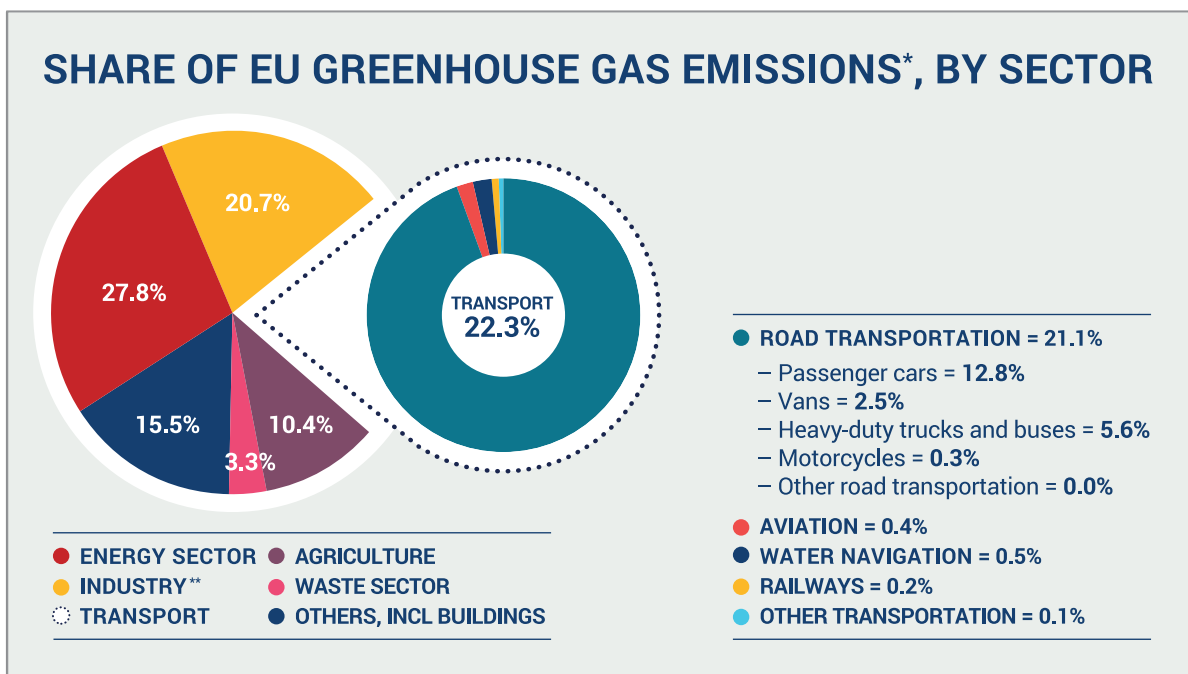
January 2020

CONTEXT

The transport sector is responsible for 22.3% of total EU greenhouse gas (GHG) emissions, with road transport representing 21.1% of total emissions. Breaking this down further, passenger cars account for 12.8% of Europe's emissions, vans for 2.5%, while heavy-duty trucks and buses are responsible for 5.6%.

Transport is therefore a key focus and driver for climate protection measures.

The European Automobile Manufacturers' Association (ACEA) strongly believes that carbon-neutral road transport is possible by 2050. This however will represent a seismic shift, requiring a holistic approach with increasing efforts from all stakeholders.



* All CO₂ equivalent

** Industry = 'Manufacturing industries and construction' + 'Industrial processes and product use'

Source: European Environment Agency (EEA)

AUTO INDUSTRY CONTRIBUTION

Investing €57.4 billion in R&D annually, the automotive sector is Europe's largest private contributor to innovation, accounting for 28% of total EU spending. Much of this investment is dedicated to clean mobility solutions.

The automobile industry embraces the Paris Agreement and its goals. Manufacturers also support the climate protection initiatives of the European Commission, such as the 'Clean Planet for All' strategy, provided all stakeholders contribute their share and the achievements to date are taken into account.

ACEA members are fully committed to deliver the ambitious 2025 and 2030 CO₂ reduction targets.

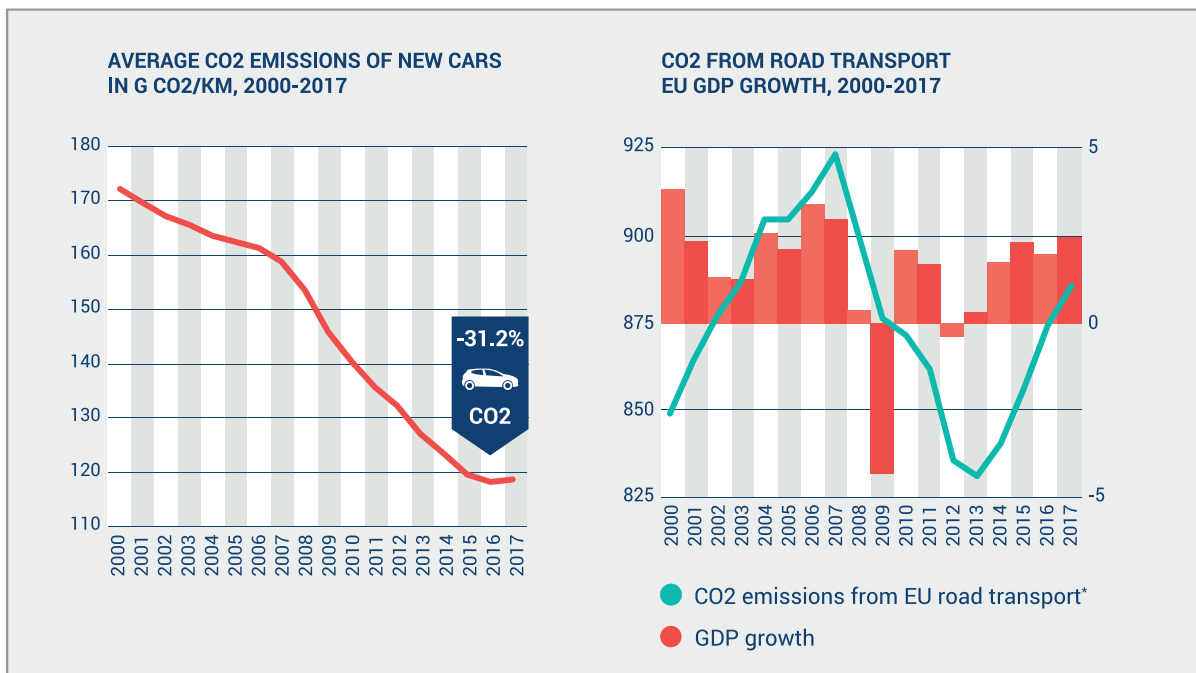
In order to provide legal certainty for the industry as it moves towards carbon neutrality in 2050, the 2022/2023 timeline for the reviews of the regulations should be adhered to (as was endorsed by the European Council in December 2019). The regulatory framework must provide medium- and long-term stability for the planning of future investments.

A lot will be delivered by the industry over the coming decade:

- By 2030, CO₂ emissions from new passenger cars will have to be cut by more than 60% from a 2005 baseline;
- Emissions from light commercial vehicles will have to go down by 31% between 2021-2030.
- A 30% reduction is expected for heavy-duty vehicles by 2030 compared to a (still unknown) 2019 baseline.

THE CHALLENGES

Reduction new-vehicle CO₂ emissions offset by growing transport demand



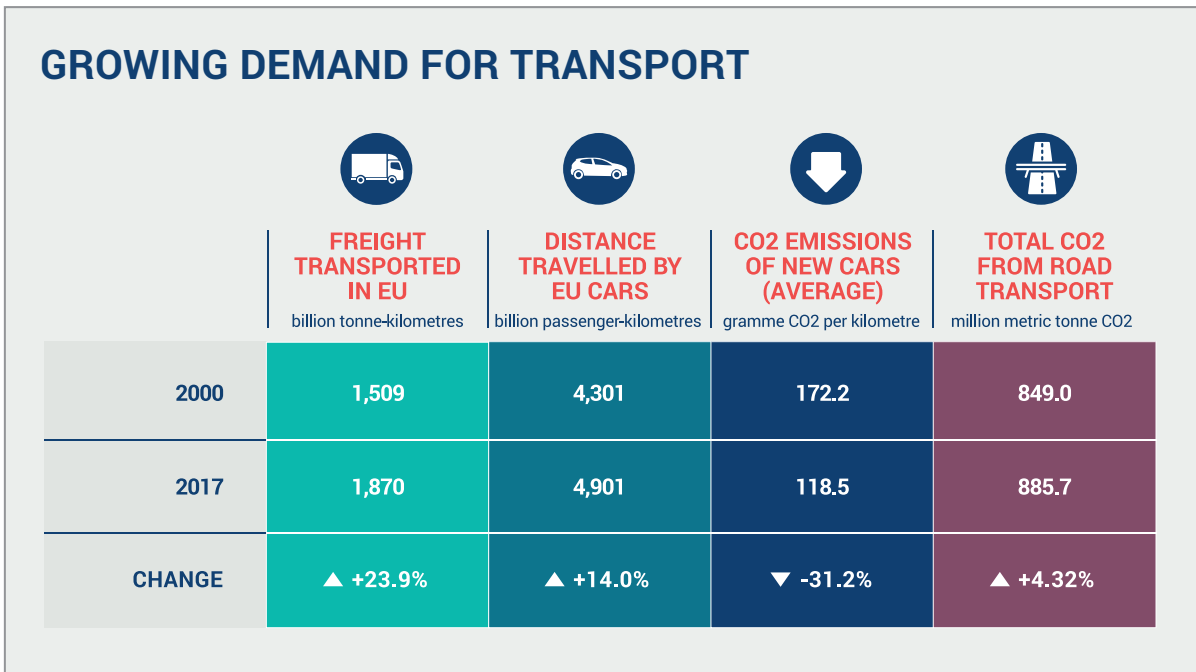
* In million metric tonnes

Source: European Environment Agency (EEA)

The strong reduction in new-vehicle CO₂ emissions achieved over the past decade – driven mainly by engine and vehicle efficiency improvements – is however being offset by **five key challenges**.

Challenge 1: Growing demand for transport

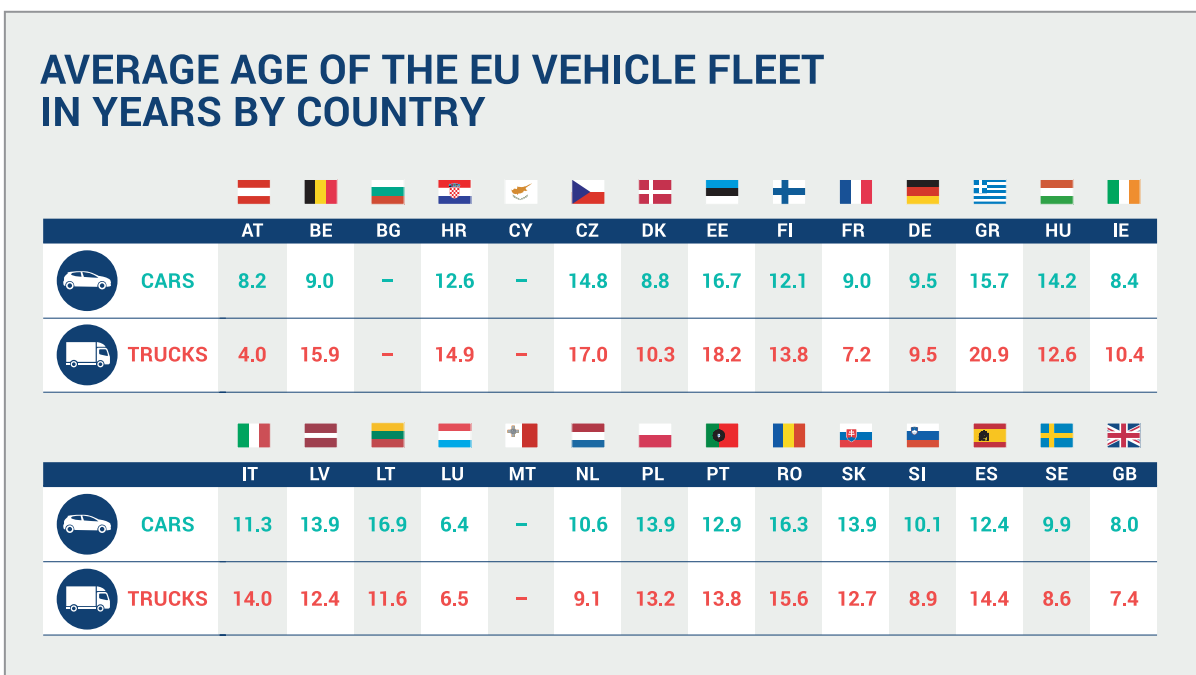
- Both for passengers and freight (which acts as an economic indicator).



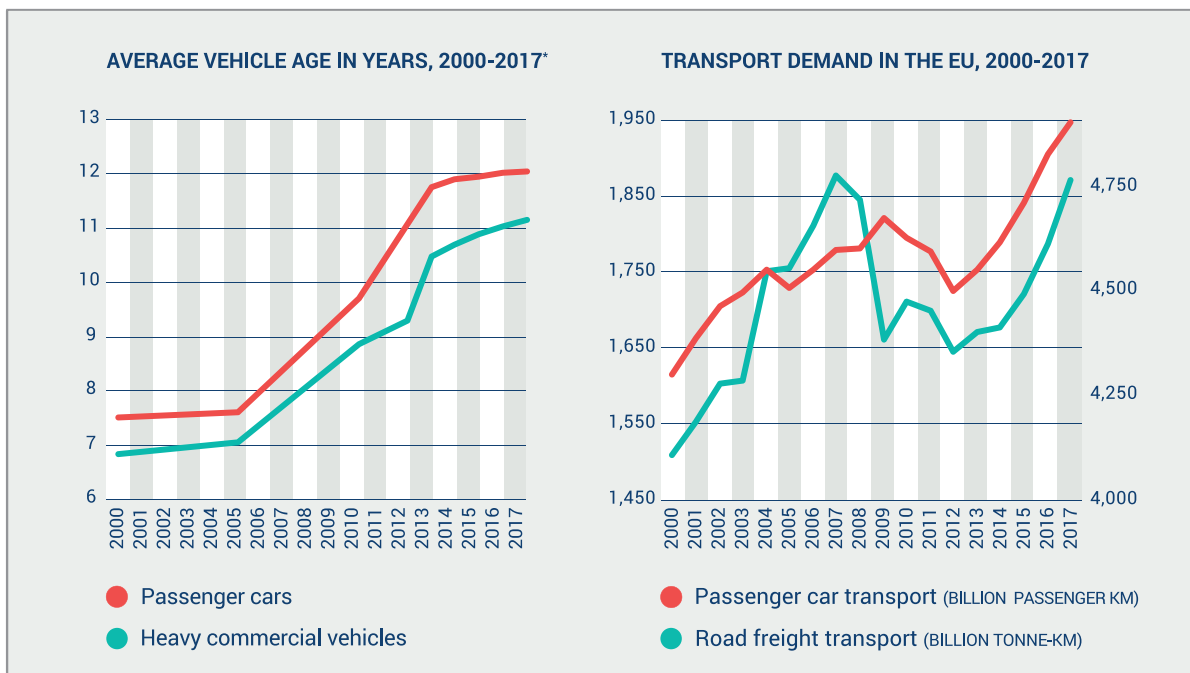
Source: European Commission, EU Transport in Figures Statistical Pocketbook 2019

Challenge 2: Customers holding on to their vehicles for longer

- Meaning that it takes more time to see the full potential of the latest technologies on European roads.



Source: ACEA, Vehicles in use - Europe 2019 | Trucks = medium and heavy-duty commercial vehicles











* Source: European Environment Agency (2000-2005), IHS (2006-2017)

Challenge 3: Low consumer acceptance of zero- and low-emission vehicles

- Although growing, their share of the market, as well as of the overall fleet, is still low due to their higher prices as well as 'inconvenience' issues (eg range anxiety).

ON THE ROAD: THE EU VEHICLE FLEET BY FUEL TYPE

	 PETROL	 DIESEL	 HYBRID ELECTRIC	 BATTERY ELECTRIC	 PLUG-IN HYBRID	 LPG + NATURAL GAS	OTHER + UNKNOWN
 CARS	54.0%	41.9%	0.7%	0.2%	0.1%	2.8%	0.3%
 TRUCKS	1.0%	98.3%	0.02%	0.01%		0.4%	0.2%

Source: ACEA, Vehicles in use - Europe 2019 | Trucks = medium and heavy-duty commercial vehicles

Challenge 4: The lack of charging and re-fuelling infrastructure

- Missing for all categories of alternatively-powered vehicles.

Challenge 5: Lack of real market acceptance/demand for new zero- and low-emission technologies for commercial vehicles

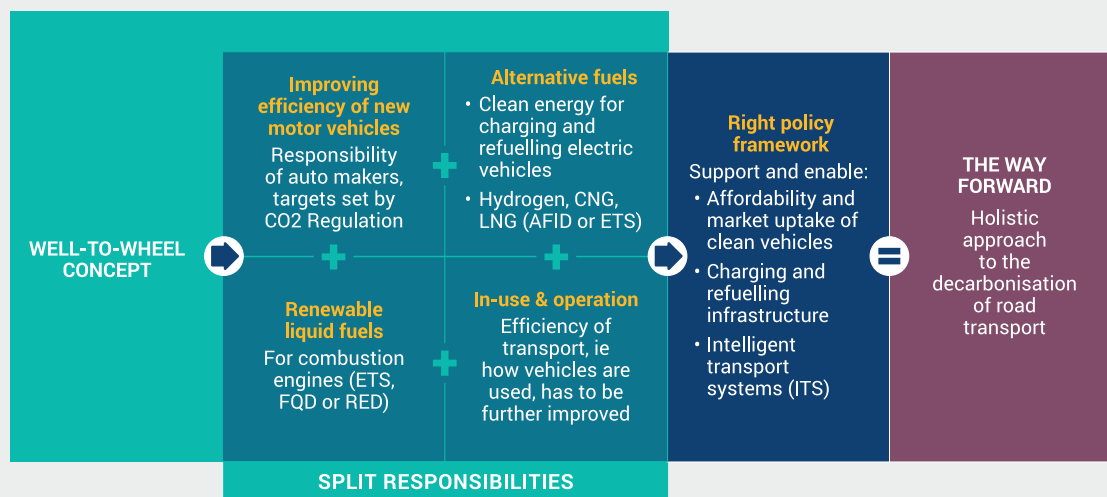
- Especially from operators in the heavy-duty long-haul transport segment.
- This does not apply to city buses, where a combination of favourable circumstances has created viable business cases.

10-POINT PLAN TO HELP IMPLEMENT THE GREEN DEAL

In order to reduce CO₂ emissions from the entire transport sector in the most cost-efficient way over the long term, ACEA makes the following 10 policy recommendations:

1. **Technological neutrality** must be maintained in order to reflect the diverse requirements of different vehicle segments and the many use cases of customers.
 - The Commission should **refrain from (directly or implicitly) mandating certain technologies** for specific vehicle segments.
 - It should also maintain the integrity of the European single market by **discouraging national and local bans on specific technologies which can deliver further CO₂ improvements**.
2. A **more holistic approach to carbon neutrality** should tackle the **use of vehicles in the current fleet**. It will therefore require a smart combination of efficient vehicles ('tank-to-wheel') as well as an increasing move towards low-carbon energy carriers used for transport ('well-to-tank').
 - ACEA members are fully committed to further lowering emissions of new vehicles and are striving to reach the CO₂ targets set recently for passenger cars, vans and heavy-duty vehicles for 2030. These targets should remain on a **tank-to-wheel basis**.
 - In addition to continuously improving vehicle efficiency, **a concept of a 'well-to-wheel with split responsibilities' could be applied post-2030** to properly account for the performance of both vehicles and energy carriers. This would allow for distinct responsibilities for the automotive (tank-to-wheel) and energy and fuel sectors (well-to-tank). It would also recognise alternative, low-carbon and renewable fuels as being key in the transition to net-zero emissions. As such, they should be promoted in future.
 - **All energy carriers should be part of a stronger EU Emissions Trading System (ETS)** that applies a carbon price at a level that drives real change. Many of the vehicle-efficiency technologies that will be needed to reach the industry targets are equivalent to a carbon price of well above €250 per tonne CO₂ (the current ETS price is around €25).

HOLISTIC APPROACH TO DECARBONISATION: THE WAY FORWARD



3. With respect to the fuel sector, progress in vehicle efficiency should be accompanied by **policies supporting a reduction in the GHG intensity of fuels**, such as:
 - Changes in **fuel taxation** and supporting schemes at the EU and national levels. This would give positive price signals to consumers, encouraging the use of renewable fuels as well as other fuels with low net-carbon emissions.
 - Policies **stimulating higher renewable content in fuels**. These could for example be included under a revised Fuel Quality Directive, by setting more ambitious targets for advanced renewable transport fuels in the Renewable Energy Use Directive, and/or via other supporting instruments.
 - Providing meaningful incentives across sectors to **create sufficient market demand** and critical volumes for renewable, carbon-neutral fuels.
4. With respect to alternative fuels, a dense **EU-wide network of charging points and re-fuelling stations** – suitable for passenger cars and commercial vehicles – must urgently be deployed. This is one of the most important enabling conditions for achieving carbon neutrality.
 - There should be an **ambitious review of the Alternative Fuels Infrastructure Directive (AFID)**, setting mandatory targets for charging points and re-fuelling stations at the

- national level with clear enforcement measures. Smart charging should also be promoted.¹²³⁴
- The AFID review should take account of the **specific requirements of the heavy-duty segment**, as their needs in terms of charging/fuelling capacity and location of infrastructure differs greatly from cars.
 - It is also crucial that the infrastructure is **well maintained** and can be relied upon to actually work; too often users encounter problems with its proper functioning.
5. Given the lack of any common EU or global methodology, as well as the involvement of many sectors for which the automobile industry is not directly responsible (including some outside the EU), the **life-cycle assessment should not be taken as the basis for any mandatory, regulatory targets** for vehicle manufacturers.
 - This would lead to the untenable situation where the automobile industry would be responsible for every aspect of the supply chain, including those not under its control.
 - Furthermore, non-usage related greenhouse gas emissions (eg from production or recycling) are already largely covered under other schemes, like the EU ETS.
 6. **European support for research and innovation** is essential, not only in relation to zero- and low-emission vehicles, but also for developing low-carbon fuel solutions and further improving the efficiency of the internal combustion engine.
 - In addition, the potential of carbon capture and utilisation technologies should be further researched.
 7. New technologies, both electrification and carbon-neutral fuels, are expensive and will remain so for the foreseeable future. To ensure that the pace of fleet renewal does not slow down, **consistent incentive schemes** for both the users of passenger cars and the operators of commercial vehicles should be put in place (also considering the residual value). This could include a revision of the European energy taxation system.
 - It will encourage a swifter **fleet renewal** in all vehicle segments, accelerating the uptake of new technologies.
 - It will ensure that zero- and low-emission transport is **viable for businesses**, becoming the better option in spite of higher total costs of ownership. CO₂-differentiation of road charges for heavy-duty vehicles under the Eurovignette Directive would play an important role in this regard.

The premature phasing-out or removal of customer incentives seriously impacts the market uptake of alternative fuel vehicles, as has been seen in several countries.

¹ ACEA-Eurelectric-Transport & Environment joint statement, 4 September 2019

² ACEA-Hydrogen Europe joint statement, 9 October 2019

³ ACEA-Liquidgas Europe-UPEI-ePURE-EBB joint statement, 14 January 2020

⁴ ACEA-NGVA-EBA joint statement, 20 January 2020

8. In order to facilitate and properly address structural changes in member states and regions with an automotive industrial base, the Commission should support **re-skilling and skills upgrading in the auto industry**.
 - This could be supported by implementing industry-supported projects funded by Erasmus+, such as DRIVES or ALBATTs.
9. The **efficiency of transport and logistics** will have to be increased further in order to create a business environment where carbon-neutral transport solutions are the preferred choice.
 - This can be achieved for instance by enhancing logistics efficiency and allowing cross-border use of **high-capacity vehicle combinations** to connect all member states, and by using automation and connectivity solutions in the transport and logistics chains.
10. The transition to carbon-neutrality must be well-managed, taking into account the **social and economic dimensions**.
 - Mobility must remain affordable for all European citizens, regardless of where they live or their financial means.
 - Road freight transport must continue to contribute to the functioning of the European economies.
 - With respect to current need for fuel imports, renewable and alternative fuels should enhance European energy security and independence.
 - The Green Deal should also be used as a means to strengthen the EU's industrial base and the global competitiveness of its automobile industry – for the sake of all those who depend on the economic vitality of the sector, including the millions of Europeans employed by it.

ABOUT THE EU AUTOMOBILE INDUSTRY

- 13.8 million Europeans work in the auto industry (directly and indirectly), accounting for 6.1% of all EU jobs.
- 11.4% of EU manufacturing jobs – some 3.5 million – are in the automotive sector.
- Motor vehicles account for €428 billion in taxes in the EU15 countries alone.
- The automobile industry generates a trade surplus of €84.4 billion for the EU.
- The turnover generated by the auto industry represents over 7% of EU GDP.
- Investing €57.4 billion in R&D annually, the automotive sector is Europe's largest private contributor to innovation, accounting for 28% of total EU spending.

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