

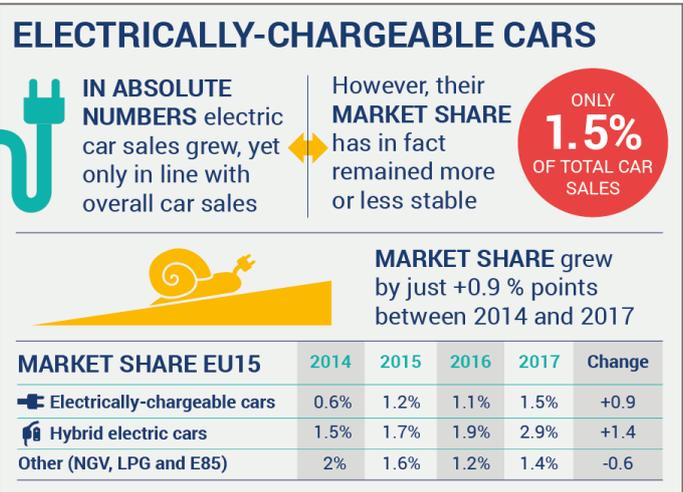
# ACEA FACT SHEET: POST-2021 CO2 TARGETS FOR PASSENGER CARS FUTURE TARGETS SHOULD BE AMBITIOUS YET REALISTIC

EU automobile manufacturers are fully committed to further reducing CO2 emissions from their vehicles, spending a large part of the sector's €53.8 billion annual R&D investment on decarbonisation. However, in the end it is the consumer who decides which technology to buy. And today's market trends are having a direct impact on the CO2 performance of Europe's new car fleet.

## Electric cars: stagnant uptake



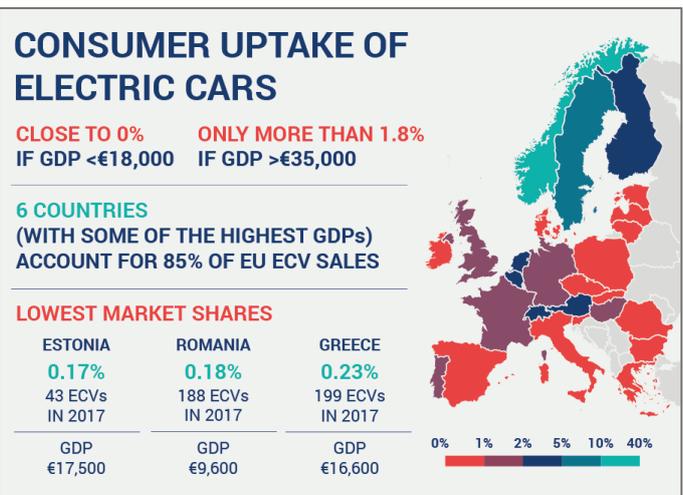
- Sales of electrically-chargeable vehicles (ECVs) grew in recent years, but only in line with the overall growth of car sales.
- Their market share, however, has remained more or less stable; growing by just 0.9 % points between 2014-2017.
- At this pace, the ECV market share would be 3.9% by 2025 and 5.4% by 2030.
- Consumers are sending a clear signal: there are still too many barriers (lack of infrastructure, affordability, range, etc) for electric to replace diesel or petrol.



## Highly fragmented market



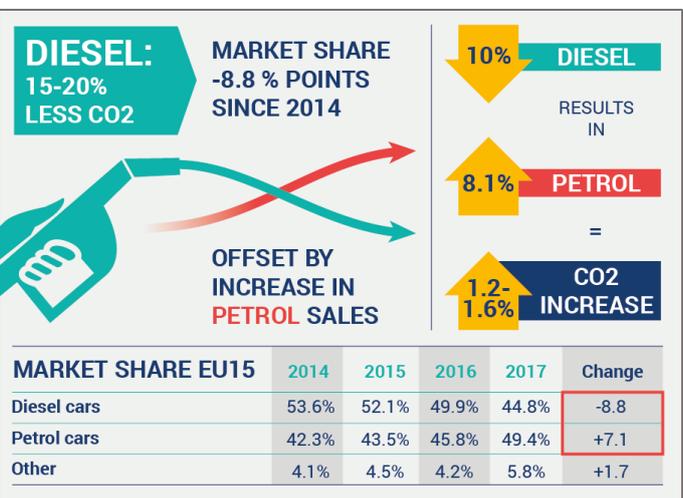
- Consumer uptake of electrically-chargeable vehicles (ECVs) is directly correlated to the GDP per capita.
- This is reflected in the huge differences between the 28 EU member states.
- The ECV share is close to 0% in countries with a GDP below €18,000 (eg Central and Eastern Europe, but also Greece).
- By contrast, their market share is only higher than 1.8% in Western European countries with a GDP above €35,000.



## Diesel's falling market share

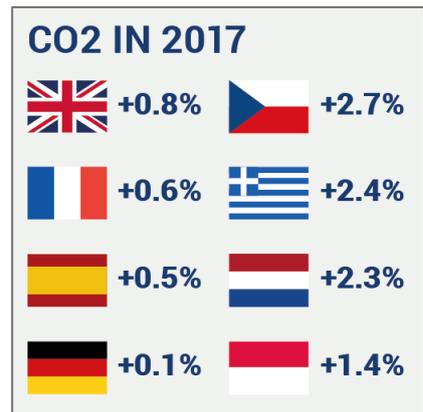


- Diesel cars emit 15-20% less CO2 emissions than equivalent petrol ones.
- The market share of diesel fell by 8.8 % points between 2014 and 2017.
- However, this drop in diesel was largely offset by an increase in petrol sales (with higher CO2 emissions).
- Every 10% drop of diesel's market share translates into 8.1% more petrol cars being sold, and thus in a CO2 increase of 1.2-1.6%.



These market trends, beyond the control of auto makers, pose additional challenges to meeting future CO2 targets. Not only those proposed for 2030, but also the CO2 targets already set for 2021.

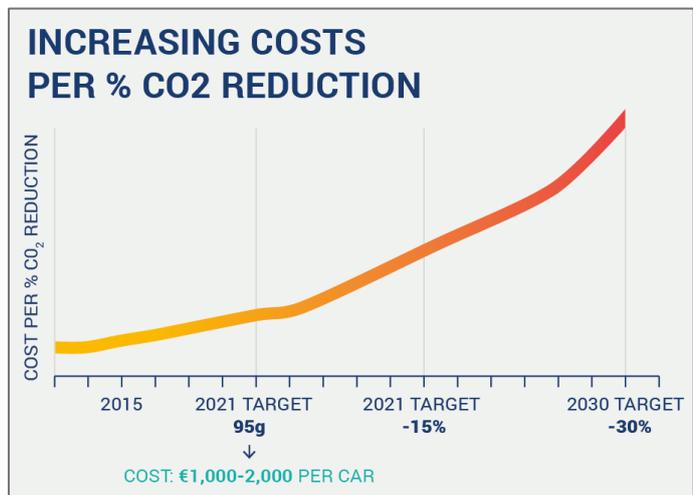
The impact of consumer behaviour on the CO2 performance of the new car fleet is already becoming visible. In 17 EU member states, average CO2 emissions from new cars were higher in 2017 than the previous year.



- CO2 was up in major car markets such as the United Kingdom (+0.8%), France (+0.6%), Spain (+0.5%) and Germany (+0.1%).
- The increase was even bigger in the Czech Republic (+2.7%), Greece (+2.4%), the Netherlands (+2.3%) and Poland (+1.4%).
- This is the first annual rise in CO2 emissions since records began in 2010; the drop in diesel sales being the prime cause.

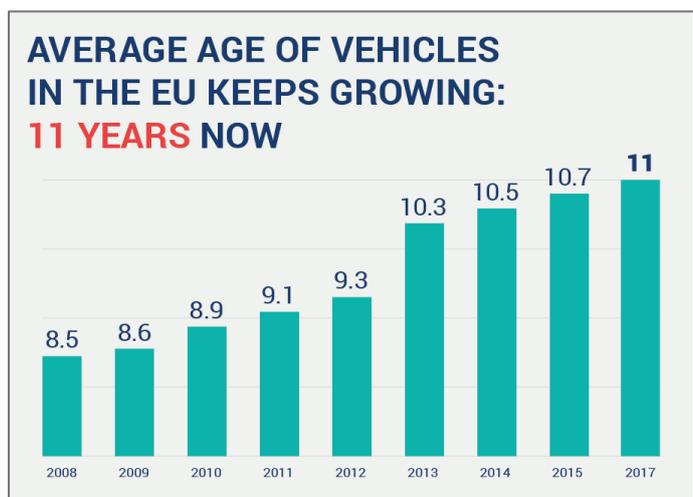
### Affordability versus increasing cost of future CO2 reductions

- The existing 2021 CO2 target is estimated to already add €1,000-2,000 in manufacturing costs per car.
- To meet the challenges posed by current consumer behaviour, all available 'low-hanging fruit' reduction technologies will have to be used to reach the 2021 target.
- Beyond 2021, CO2 improvements will become even more difficult and costly.
- Consequently, the cost per percent of CO2 reduction will increase drastically as we come closer to 2025 and 2030.



- So, rather than looking at the per annum percentage CO2 reduction, the discussion should be about the cost per percent of CO2 reduction – ie how much more expensive a car will become.
- That is why we need realistic CO2 targets, taking into account what people actually can afford.

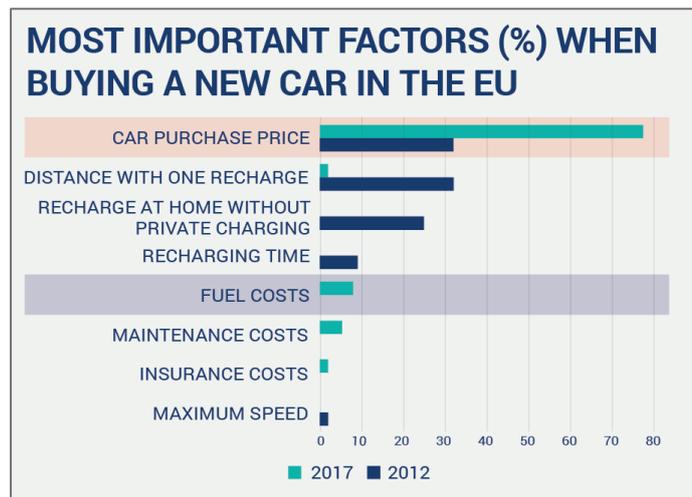
- Increasing costs have an effect on the affordability of new, low-emission cars.
- Already now, when we look at the rapidly ageing EU vehicle fleet, we see that customers are increasingly postponing the purchase of a new car.
- Over-ambitious CO2 targets are counter-productive, as price-sensitive customers will keep their old cars longer.
- Consequently, fleet renewal will slow down, with a negative impact on the environment.



- Higher costs are also the main barrier to the wider uptake of alternatively-powered vehicles.
- A recent study by the European Commission's Joint Research Centre (JRC) confirms this.

## Key findings of JRC study

- “Purchase price continues to represent the major hurdle to widespread adoption of [electric] powertrains.”
- “Other reasons for not buying electric cars: lack of recharging infrastructure and short range.”
- “Attitudes towards electric cars in Europe have remained relatively stable in the last five years.”



- Considering the low and fragmented market uptake of alternatively-powered cars across Europe today, the -30% CO2 target proposed by the European Commission for 2030 is overly ambitious.
- Setting an ambitious target is one thing, but that does not guarantee that consumers will follow (something that today’s consumer trends already demonstrate).
- Instead, we need to make sure that customers can afford to buy clean vehicles.
- It is vital to strike the right balance when defining ambitious yet realistic targets.

## New WLTP test means that 2021 CO2 target of 95g becomes >5% more stringent

- The CO2 targets that car makers have to meet by 2021 are based on the old NEDC lab test.
- Since the introduction of the new WLTP test in September 2017, CO2 emissions are translated back to NEDC-equivalent values to monitor compliance against the EU CO2 targets.
- However, the European Commission has tightened the NEDC test conditions.
- So effectively, the existing 2021 CO2 target has become >5% more stringent; making it much more challenging for industry to meet current and post-2021 targets (as confirmed by JRC and JATO).

## POLICY RECOMMENDATIONS



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- The -30% reduction target proposed by the European Commission for 2030 is based on the assumption that we can continue to reduce CO2 emissions at the same pace as in the past, but that is clearly not the case.
- Today’s market trends (such as consumers switching from diesel to petrol with higher CO2 emissions and the low market uptake of alternatively-powered vehicles) are posing a real threat to future CO2 reductions, even affecting the existing 2021 target.
- It is thus vital to set targets that are realistic, taking into account changing consumer demand and the stagnant market share of alternatively-powered vehicles.
- Moreover, the proposed 30% reduction goes beyond what was agreed by EU heads of state under the 2030 Climate and Energy Framework to meet the COP21 objectives – putting the global competitiveness of the European auto industry at risk.
- That is why CO2 reductions from passenger cars between 2021 and 2030 should be at a level of -20%, in line with what is expected of other industry sectors.