

The Consumer Voice in Europe

A NEW LABEL TO HELP PEOPLE CHOOSE THE BEST AND CLEANEST CAR MODELS, TODAY AND TOMORROW

BEUC recommendations for the reform of the EU car labelling directive



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Why it matters to consumers

Having access to accurate information about fuel consumption, CO₂ emissions and fiscal incentives can help consumers make the most affordable and sustainable choice. Every consumer should have access to such information, irrespective of whether they are buying a new or second-hand vehicle. The tool that should provide this information, the EU car label, is outdated and inconsistently applied across Europe.

Summary

The current EU Car Labelling Directive fails to guide consumers towards more sustainable choices of cars and urgently needs to be updated. Existing EU law¹ requires the European Commission to present a legislative proposal to update car labelling by the end of 2020. In this document, BEUC describes the pitfalls of the current labelling scheme and set out policy recommendations to improve it. In sum the future car label should:

- Be based on a regulation rather than a directive and be harmonized at EU level for most parameters while leaving some flexibility to be adapted to national circumstances (e.g. tax incentives).
- Contain information about real fuel consumption, real CO₂ emissions, running costs, emissions of regulated pollutants, the car's EURO standard, and the test-cycle under it has been type-approved. For electric cars, real electric range, charging speed and average charging time should be mentioned.
- Contain a correction factor – comparable to the one used in the US – to bring laboratory results closer to reality.
- Apply to new cars (as is currently the case) but also second-hand and leased vehicles, vans and two-wheelers.
- Cover non-printed promotional material and online content, such as car configurators.
- Reflect the lifecycle carbon and environmental footprint of a vehicle.

¹ Article 15(6) of Regulation 2019/631 on post-2020 CO₂ emission performance standards for cars and vans.

1. Introduction

Changing the way we move about across the world is part and parcel of combatting the climate crisis. For the EU, transportation represents almost a quarter of EU's CO₂ emissions. It is the only sector which has not decreased its emissions in the past two decades. Cars and vans are responsible for the most part of the transport sector's rising emissions. Far from declining, emissions from private vehicles are on the rise. They grew by 2g/km between 2017 and 2018².

One way to combat this is having alternatives to car use. Yet we must recognise that not everyone will be able to resort to alternatives. Therefore, the efficiency of our petrol cars must be improved, and a large-scale roll-out of new, low-emission alternatives such as electric cars is important. On the latter, consumer groups have been working to highlight what is needed – in terms of infrastructure and daily use – to make electric cars available and convenient to use³. What is not yet fully encapsulated in this work are the crucial moments of a consumer's decision-making about a car: the advertisement and the point of sale.

People will only be able to choose a car that performs better if they have enough information on it. This goes beyond the environment as such and concerns how much we wish, or can, spend on fuel/charging and whether our cars are might be affected by local driving bans to combat air pollution.

A car label *should* be providing consumers precisely with this kind of information. Alas, the EU legislation which is supposed to deliver such information – the Directive 1999/94/EC on car labelling – has been left untouched since its adoption 20 years ago and is largely outdated. This paper explains why the current legislation neither offers adequate information nor provides the same information to all consumers across the EU. In addition, it is not adapted to today's market where electric cars are a rising trend, the sales process is partly or fully online and where there is are a high number of second-hand vehicle sales. This law must therefore be reformed to provide trustworthy information to consumers that they can rely on to choose their car.

2. The new label should be harmonised at EU level

The current EU car labelling scheme is based on a Directive which allows Member States plenty of room for divergent national implementation. Neither the layout of the label nor the concrete information it contains are specified in the text of the Directive. Consequently, and as extensively reported by the Directive's evaluation, the car labelling scheme has not been implemented in the same way in the different Member States. As a result, Europeans are not receiving the same information about the environmental performance of cars.

While most Member States have introduced user-friendly labels based on the EU energy label and/or on absolute thresholds of CO₂ emissions, some of the designs have been controversial. For example, Germany applies a so-called "relative label" scheme by which cars are compared only to cars of the same category (defined on the basis of the mass of the vehicle). It can lead to confusing situations where a small car can receive a lower grading than a heavy and powerful car only because the small car will be less efficient compared to other vehicles in the same mass range. In other words, a small car which uses less fuel and emits less CO₂ in absolute terms may be rated worse in the German

² https://www.beuc.eu/publications/beuc-x-2019-032_making_electric_cars_convenient.pdf

scheme than a more polluting car. This situation does not send the right signal to consumers in times of the climate crisis.

Moreover, the Directive does not require that information must be comparable across retailers. Hence, in several countries, including the Czech Republic and Poland, where no standardised label format is foreseen in national legislation, every car dealer can use a different format.

Surveys about the current label have shown that the most significant public recognition happens in countries where the car label presents a similar layout to that of EU energy label⁴. Therefore, we support the idea of a label the format and context of which would be extensively harmonised so that all EU consumers have access to the same information about cars. Of course, consumers should continue to have access to information written in their own language, expressed in the units of measurement they understand and tailored to the local tax context.

To this end, the Commission should propose an EU-wide harmonised label by turning the current Directive into a Regulation that details what should be shown on said label. It should identify all the different market players to whom the label will apply directly, as well as the authorities that will be responsible for ensuring compliance with these provisions.

BEUC recommendations:

- The Commission should revise the current car labelling directive and turn it into a Regulation directly applicable in Member States.
- The new harmonised label should provide the same type of information to all consumers across Europe.
- The layout of the new car label should be similar to the one of the existing EU energy label.
- The label should be adapted to national circumstances (for units of measurement and information on applicable tax policy).

3. The new label should provide reliable and useful information to consumers.

In this section, we detail what type of information the new label should display.

Information about real-tailpipe CO₂ emissions expressed in absolute terms

The new harmonised EU vehicle label should include an indication of CO₂ emissions in absolute terms. To help consumers identify at a glance which vehicle performs best in terms of CO₂ emissions, the label should make use of a colour-coded comparative rating scale ranging from class A to class G⁵. Such a system is easy to understand and based on the model of the original energy label for household appliances, which is well very well-

⁴ <https://ec.europa.eu/transparency/regdoc/rep/10102/2016/EN/10102-2016-270-EN-F1-1.PDF>

⁵ Many countries already use a seven-level rating scale ranging from A to G with 5 classes in between, based on the original rating scale used for household appliances.

known among consumers.⁶ The thresholds of the A to G bands should ensure that the classes are initially distributed so as to allow a clear distinction between zero or very low emissions vehicles and others. Enough leeway must be left at the top of the scale to accommodate future technological developments. In addition, the criteria for achieving the energy classes should periodically be tightened to keep up with technological advances. This will prevent to repeat errors made with the EU energy label⁷. In particular, the “plus classes” (A+, A++, A+++) should not be allowed as it is only confusing for consumers. In terms of design, the new label could consist of three parts: emissions-fuel consumption-driving range, costs and other info. This would provide more clarity to consumers.

As for the rating scale, every vehicle concerned by the Regulation should be mandatorily classified along the A-G rating scale according to its absolute emission levels. (i.e. absolute labelling scheme). Such classification allows consumers to easily compare cars based on their environmental performance. It also enables useful comparisons between model versions of a vehicle model and see the effect of optional equipment on emissions. Finally, an absolute labelling scheme could be more easily linked to fiscal measures which are commonly based on absolute CO₂ emissions in many Member States.

The Commission should put an end to the “relative rating scheme” by which a car is classified along a scale that is related to its CO₂ emissions compared to cars of the same size, weight or type. The relative rating scheme label, which is used in Germany, Spain and the Netherlands, is not well understood and should be discontinued.⁸ Using mass as the parameter to assign cars to efficiency classes provides less incentive to manufacturers to invest in light-weighting which is seen as a very efficient way to achieve CO₂ reductions. To still allow for a comparison between vehicles of a similar size, the label could foresee a possible mention of the “best (and worst) in class” vehicles.

BEUC recommendations:

The harmonised EU vehicle label should include a reference to the absolute CO₂ emissions of the vehicle and a classification of the vehicle along a A to G rating scale according to absolute emissions.

Information about real fuel consumption or real range in case of zero emission vehicles calculated through a correction factor.

In the past two decades, the gap between NEDC official laboratory test results and real-world fuel consumption has increased steadily, from 9% in 2001 to 42% in 2015. This means consumers have expected a much lower fuel consumption based on the car label than what they experienced when driving their cars on the road. Almost half of this difference was due to the use of loopholes and flexibilities by manufacturers in the NEDC laboratory test. Artificially optimising the performance of a car led to additional fuel costs of several hundreds of euros per year. In order to remedy this situation and to give consumers a more realistic picture of fuel consumption, the new World Light Vehicle Test Procedure (WLTP) has been introduced into EU law. Starting from September 2019, every

⁶ It is worth mentioning that the simultaneous use of a similar label design for vehicles, household appliances and buildings has been recommended by a study ordered by the European Commission’s Directorate for Energy since it will reinforce the impact and recognition of the labelling scheme in the several areas of application. ee. Ecofys (2014) Evaluation of the Energy Labelling Directive and specific aspects of the Ecodesign Directive.

⁷ https://www.beuc.eu/publications/beuc-x-2017-120_new_energy_label-back_to_the_a-g_scale.pdf

⁸ A survey by the consumer centre of North Rhine-Westphalia with 1,006 German consumers conducted in July/August 2012 also showed that a large number of consumers expect a car that receives a top rating (i.e. A+) should have an overall very low level of fuel consumption.

model on sale in the EU car market will have been type-approved under this cycle which better simulates real driving conditions.

While WLTP should contribute to reducing this gap between test results and reality, early reports unfortunately suggest a significant difference between test and real-world levels will remain when cars are actually on the road. The gap could even increase again during the 2020s. This is the reason why consumer groups have been asking for the extension of the Real Driving Emissions test (RDE), which currently exists for polluting emissions, to CO₂ emissions, fuel consumption and/or range in case of zero-emission vehicles.

At least until such a RDE test is available, we recommend that a correction factor similar to that used by the US Environmental Protection Agency (EPA). This factor adjusts laboratory fuel consumption values/ range down to provide consumers with a realistic on-to-road figure. In the US, this solution has proven to be useful and appropriate, both for internal combustion engines and for zero-emission vehicles. Early evidence suggests that the gap between WLTP and real-world performance should be around 20%. To compensate for this gap, a vehicle's official WLTP emissions value would thus be multiplied by 1.2. The obtained value would then appear on the label as the most likely real-world performance consumers can expect from this vehicle.

This correction factor could be updated regularly (for instance every two years) by the Commission based on the data collected from the on-board fuel consumption measurement devices. The Commission could also use a consumer groups' data base as benchmark. This database, called MILE21⁹, allows drivers to monitor and report their real-world fuel consumption. This project is run by consumer groups Altroconsumo (Italy), Test Achats (Belgium), DECO (Portugal) and OCU (Spain).

In the specific case of **plug-in-hybrid vehicles (PHEVs)**, the displayed values for fuel consumption and CO₂ emissions hardly make sense for consumers. For these vehicles, the meaningful information for consumers is how far you can drive in electric only mode and how much fuel you will consume when the combustion engine will take over. Yet, the fuel consumption value currently indicated for these vehicles in the label consists in an average value of the electric driving mode and the internal combustion driving mode which does not give useful information for either of the two modes. For these vehicles, it would therefore be important to display both the real electric range (WLTP tested electric range multiplied by the correction factor) as well as the real fuel consumption (WLTP tested fuel consumption multiplied by the correction factor) when the car is driven using its internal combustion engine.

Another case which requires specific attention are **vehicles** which have been tested under the old NEDC test cycle. To avoid confusion for consumers, who could think wrongly that a car type-approved under the old test is more efficient than a car approved under WLTP, the correction factor should be adapted. Considering that the gap between real-world and NEDC tests was around 40%, the correction factor for NEDC type-approved vehicle would be set at 1.4 instead of 1,2.

⁹ <https://www.mile21.eu/about>

BEUC recommendations:

- The new label should display information on real world-fuel consumption by using a correction factor, at least until a RDE test for CO₂ becomes available.
- In the case of plug-in hybrids vehicles, the label should display both the real electric range and the real-fuel consumption when the car is driven using its internal combustion engine.
- The old NEDC value should be translated into most recent standards by using an adapted correction factor. This would allow to include second-hand cars in a meaningful way into the labelling scheme.

The specific case of battery electric vehicles: information needed on real range and average charging time

As battery electric vehicles move from a niche market to mass production, it is essential to have accurate information on real range of electric vehicles. Surveys show that range remains a major concern for the average consumer and that they do not feel well informed about it. For instance, one in two French people consider range as a barrier to buying ZEVs and 43% of them feel poorly informed about the range of electric cars¹⁰. The driving range of electric vehicles varies greatly depending on the model and power/technology of the battery power. WLTP improves the assessment of the driving range leading to more realistic values. However, as for conventional vehicles, it remains a laboratory test which cannot reflect all driving conditions and usage. Also, more than for diesel and petrol cars, the real range will differ widely depending on the driving conditions: a battery electric car will drive much longer in urban areas than on highways. It is therefore crucial to inform consumers properly about the real driving range of their vehicles, under different conditions. The correction factor mentioned above could also be used there: instead of multiplying the tested range by 1.2, it would be multiplied by 0.8 to give a more realistic value.

Another key element of information is the recharging technology of electric vehicles. Not all vehicles on the market today accept fast or ultra-fast charging (100 to 350 KWh). This means the promise of charging point operators to charge 80% of a vehicle's battery in less than 30 minutes only stands true for those models that accept fast-charging. And even for these vehicles, it may only be true in a selection of cases. This is because many conditions affect the speed of charging: weather conditions, the chemical composition of batteries and the level of the remaining charge when a car starts to re-charge. As a result, electric vehicles never load at maximum speed for the whole duration of the charge, as the intensity of the power varies greatly while the vehicle is plugged-in. From a consumer perspective, what matters most therefore is not the maximum but the average charging speed: Or to say it differently: the average time a user needs to charge a battery from 10% to 90%. While this might not be a crucial information for daily charging when the car will be plugged for several hours, for instance overnight, this becomes a really important issue to be aware of for fast/ultra-fast charging during long-distance travels. BEUC therefore recommends the EU car label shows maximum charging speed and average

¹⁰ http://www.averre-france.org/Site/Article/?article_id=7408

charging time when using fast or ultra-fast chargers (defined as time needed to gain 100km of driving range, or to charge a battery from 10% to 80 or 90%.

BEUC recommendations:

- For battery electric cars, the label should include a clear indication of the real driving range using the correction factor mentioned above, according to different driving styles and uses.
- In the case of a BEV, the new label should mention maximum charging speed and average charging time when using this maximum charging speed (for instance defined as the time needed to gain 100 km of additional driving range).

Information about running costs, fiscal incentives and safety

Studies found that displaying operating costs on the label is the most successful way to encourage consumers to choose the most fuel-efficient vehicles.¹¹ Since the fuel consumption of conventional vehicles (e. g., l/100 km) cannot be directly compared to the electricity consumption of all-electric vehicles (in kWh/100 km), a fuel cost metric would also greatly facilitate the comparison. We recommend that the EU vehicle label contains a reference to running costs per 15 000 km, i.e. the average annual mileage of a typical European driver. To be relevant, the Regulation should also contain provisions to ensure that information on running costs is reviewed periodically.

In order to better reflect the total cost of vehicle ownership, running costs should cover not only fuel costs, but also the ones related to taxation. Although it may be difficult to adapt each individual cost factor to all national circumstances, we recommend that at least fuel cost is adapted to national prices, as gas and electricity prices vary considerably from one Member State to another. In any case, information on the assumptions (average fuel price, applicable taxes, average estimated maintenance costs) used to calculate the estimated running costs should be made available to consumers. Maintenance costs also play a very important role in determining the total cost of ownership of a vehicle. Much less maintenance and repair is needed for battery electric vehicles than for petrol and diesel cars which means these models are cheaper to own and to run than conventional despite a higher upfront cost¹². Although it would be difficult to show this in the label, it is important that car manufacturers, public authorities and environmental and consumer groups to inform consumers about this.

If applicable, the label must contain information on tax incentives. This information is distinct from running costs and must tell car buyers what financial advantage he or she might get by choosing a particular car. Even though this amount is decided by national governments, it is important that information on tax incentives is displayed consistently on all vehicle labels in the EU.

Finally, the label should also include information on how safe the car is. For this, we recommend using the Euro NCAP system which rates cars based on a zero to five stars

¹¹ Codagnone et al. (2013).

¹² https://www.beuc.eu/publications/beuc-x-2018-113_when_will_electric_cars_be_an_affordable_option_for_european_consumers_-_a5_format.pdf

scale. Since Euro NCAP criteria are updated regularly, the label should also mention the date of the rating. A check list of noteworthy safety equipment would also be useful.

BEUC recommendations:

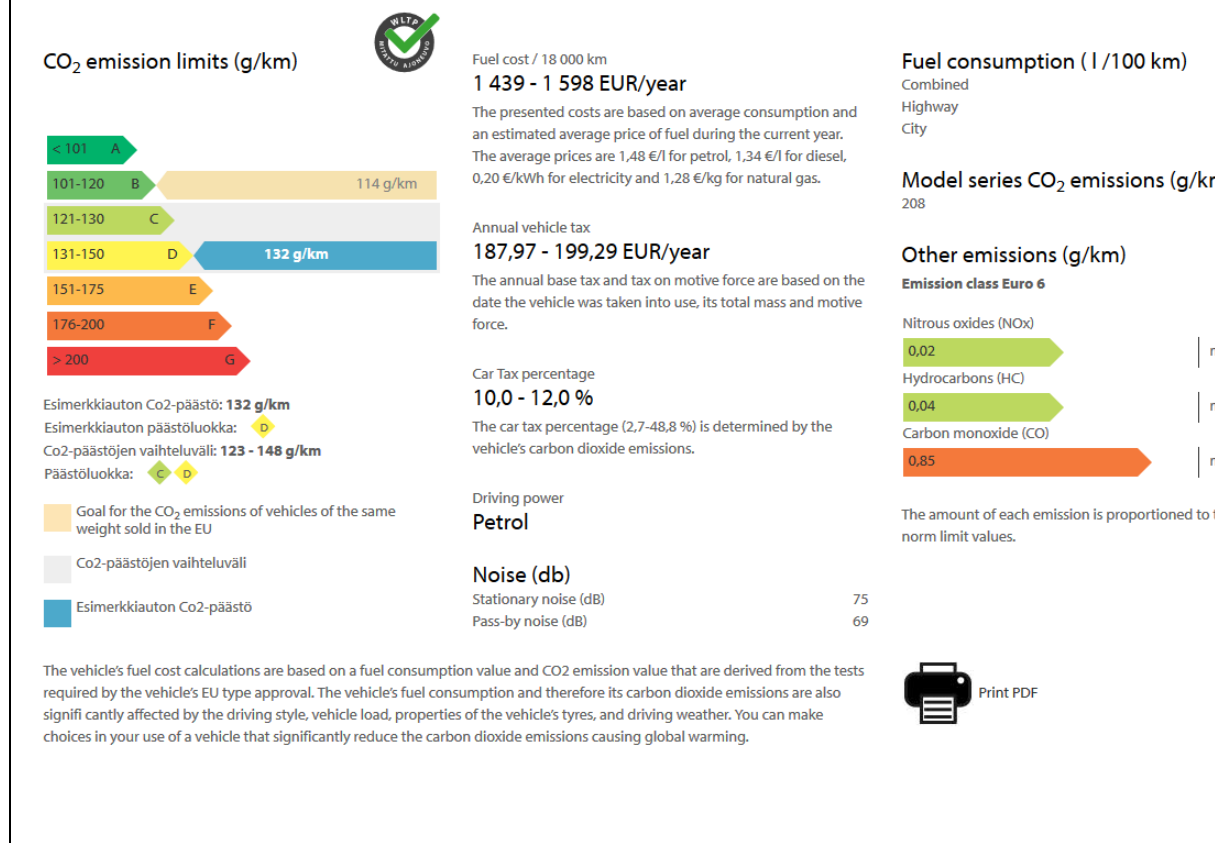
- The new label should include an indication of the running costs per 15,000 km and information on fiscal incentives. Such information should be adapted to national circumstances and reviewed regularly.
- The new label should show the Euro NCAP rating as well as a list of safety equipment.

Information about emissions of regulated pollutants

Since the Dieselgate revelations, a new motor vehicle type-approval framework has been adopted, which includes road tests to verify that the vehicle complies with the emission limits for NO_x and other regulated pollutants under real driving conditions. This means it has become much more difficult for vehicles to be type-approved without an exhaust gas treatment system delivering emissions reductions under real world conditions and not only in the laboratory. But this does not mean that all vehicles are equipped with state-of-the-art exhaust gas treatment systems and some vehicles perform much better than others. We believe that car manufacturers who decide to use the best available technologies should be rewarded with an indication of vehicle pollution, in absolute terms. In addition, a reference to EU limits should be displayed. The label used in Finland (see box below) is a good example of what to do because it contains absolute values and specific colours to illustrate the relative performance against other vehicles of the same category.

Box: the Finish car label¹³

The Finish label is a good example of how to provide useful information on regulated pollutants. The Emissions class (in this case Euro 6) is indicated but the label also informs potential buyers about the performance of the car regarding emissions of main pollutants (NO_x, HC and CO) which allows for more detailed comparison with competing models.



There is also the question of the decisions taken by some local authorities to ban old diesel vehicles on the basis of their so-called EURO standard. Although we share the objective of cleaning the fleet, consumers with older diesel cars should not be left behind which is why we urge the [Commission to push for a common European approach on this issue](#). What can help consumers is for the label to indicate clearly the car's EURO standard. That way people – especially those buying a second-hand car – can verify if a car is in danger of being banned from circulation in the coming years.

4. The new label should apply to second-hand and leased vehicles as well as to two- and three wheelers and vans.

Since the current Directive only targets the sale of new cars, there are currently important loopholes in the coverage of the scheme that need to be closed.

First, second-hand cars must be included as they represent the majority of car sales in Europe. This extension to second-hand vehicles should concern both professional and non-professional sellers. To facilitate the implementation of such an extension, authorities should launch an online portal on which all market players could easily print or download

¹³ Example of the label of a Peugeot 208 Signature PureTech 82 5-ov: <https://autovertaamo.traficom.fi/trafienergiamerkki/218821>

an EU harmonised label to be affixed to vehicles, given to potential purchasers or displayed in online sales ads. This is similar to what Finland has done to encourage private sellers to voluntarily use the label for their used cars for sale.

Second, it should be compulsory to inform consumers about CO₂ emissions and fuel consumption ahead of concluding a leasing contract for cars. sales practices are evolving with more and more cars being leased.

Third, more and more consumers look into different private modes of transportation as an alternative to cars such as two-and three wheelers and vans.

BEUC recommendations:

The scope of the Regulation should be extended to these new types of vehicles:

- Second-hand vehicles;
- Leased vehicles;
- Light-commercial vehicles;
- Two or three wheelers.

5. The new label should apply to all advertising material: offline and online

Consumers are increasingly relying on new channels to get information on their products: websites and social networks have overtaken printed guides and posters as the main source of information for buyers of cars. It is therefore essential to extend the scope of the directive to all advertising material, whether offline or online. We recommend the **full label** to be displayed in any kind of selling to allow for a well-informed purchase decision. Where physically not possible, there must be a clear reference to where this information can be found. It would be important for consumers to be able to get critical information at a glance: the full A-G rating scale with a large indication of the vehicle's energy class, information about fuel consumption, running costs and additional costs or incentives linked to local tax framework. For electric vehicles, information about fuel consumption should be replaced by information about real electric range and average charging speed.

To guide the label's adoption in practice, we recommend the Commission adopts binding guidelines on the space it must occupy on promotional content. We support the resolution of the European Parliament ¹⁴ that at least 20% of advertising space needs to be dedicated to the mandatory information. In video commercials, it can the form of a scrolling banner under the video. Moreover, the font-size of mandatory information under the new Regulation should be presented at least as prominently as the main piece of the information. We would recommend considering "*main piece of the information*" as the information which is next in size after the slogan.

There should be no difference in terms of information between online and offline purchasing processes. Especially online 'car configurators' – where a consumer can choose the specs of his/her new vehicle – come into play here.

¹⁴ Resolution of 25 October 2007 on the strategy on CO₂ from cars.

The new Regulation should ensure the fuel vehicle label is always easily and clearly visible throughout the configuration process. Ideally, the energy class of the configured vehicle, its fuel consumption and CO₂ emissions should be updated automatically dynamically according to the equipment chosen.

BEUC recommendations:

The new EU car label should be mandatory for:

- Printed and non-printed promotional content (including audiovisual content);
- Websites and online vehicle configurators.

6. In the longer run, the label should include information about the lifecycle carbon and environmental footprint of vehicles

As the vehicle market is expected to evolve towards a much larger share of zero-emission vehicles, tailpipe CO₂ emissions – which are today the core of the CO₂ labelling directive – will not remain the most relevant information about the environmental performance of vehicles. Given that European Union wants to move towards carbon neutrality and circular economy, it would make sense to develop a methodology based on the "cradle to grave" principles and use it to classify vehicle environmental performance. In a world where issues like extraction of raw materials, water consumption and recyclability are now central to the public debate, it makes sense to assess the overall carbon and environmental footprint of a vehicle based on a life-time cycle assessment. For battery electric vehicles for instance, emissions linked to the production of the battery and of electricity used to power the vehicle need to be factored in.

BEUC recommendations:

As soon as a proper EU methodology is available, any vehicle covered by the Regulation should be classified along the A to G rating scale according to its overall carbon and possibly environmental footprint over its life-time cycle.

Before such a methodology becomes available, car manufacturers should be allowed to provide certified information to consumers that an electric vehicle's battery was produced with renewable energy and/or can be reused or recycled.



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