



# WLTP and RDE

## The new test procedures

### Changing values. From NEDC to WLTP.

The new testing procedure of WLTP is based on an approximation of the test conditions to real-world circumstances, which means that the values determined will also have a greater relevance to reality. Among the changes this involves redefined, significantly stricter test conditions and higher speeds together with a substantially longer test duration (30 instead of 20 minutes).

	NEDC	WLTP
Number of test cycles	1	Up to 4
Cycle time	20 minutes	30 minutes
Cycle distance	11 Kilometer	23,25 Kilometer
Driving phases	2	4 (more non-urban use)
Average speed	34 km/h	46,5 km/h
Highest speed	120 km/h	131 km/h
Impact of options	No	Yes
Gear shifts	Fixed	Variable
Test temperature	Between 20 und 30 °C	23 °C

To obtain a more precise determination of CO<sub>2</sub> emissions, the new test procedure includes not only standard equipment – as was previously the case – but also all special equipment options of a vehicle. This produces two values for each type of vehicle: the lowest and highest possible standard consumption value according to aerodynamics, weight and rolling resistance. Thanks to WLTP, you will be able to better assess a vehicle's consumption and CO<sub>2</sub> emissions in the future. In the case of a specific vehicle configuration the individual standard value will be indicated directly.

In spite of the great accuracy, deviations are of course also possible with this test procedure. Everyday consumption and CO<sub>2</sub> emissions continue to be subject to the different conditions of topography, climate and personal driving technique. The traffic situation, the current load carried and the use of devices such as the air conditioning system are further influences on the consumption of a vehicle.

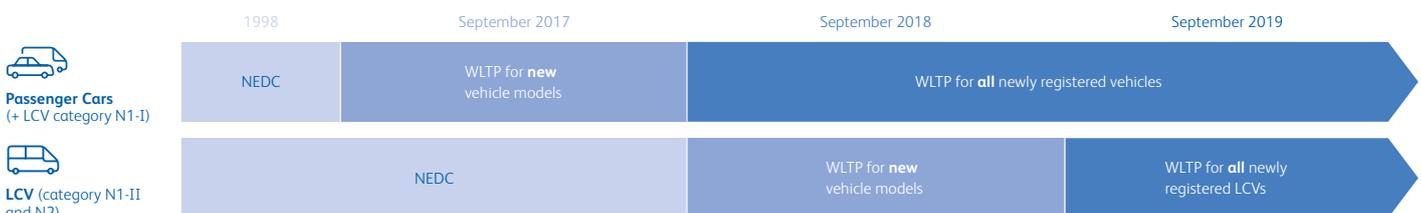
**One thing is clear:** the test conditions are more realistic than before, which means that higher fuel consumption and CO<sub>2</sub> values as well as lower ranges for electric vehicles can be expected on paper. However, this will not have any adverse effect on the real fuel consumption or range.

As a leading leasing provider, Alphabet has long supported its clients in defining, implementing and managing tailor-made sustainable mobility solutions. In some instances, this includes helping companies reach their sustainability targets and reduce their carbon footprints. It is a matter of course that Alphabet in the future will think critically about the best way to improve on WLTP.

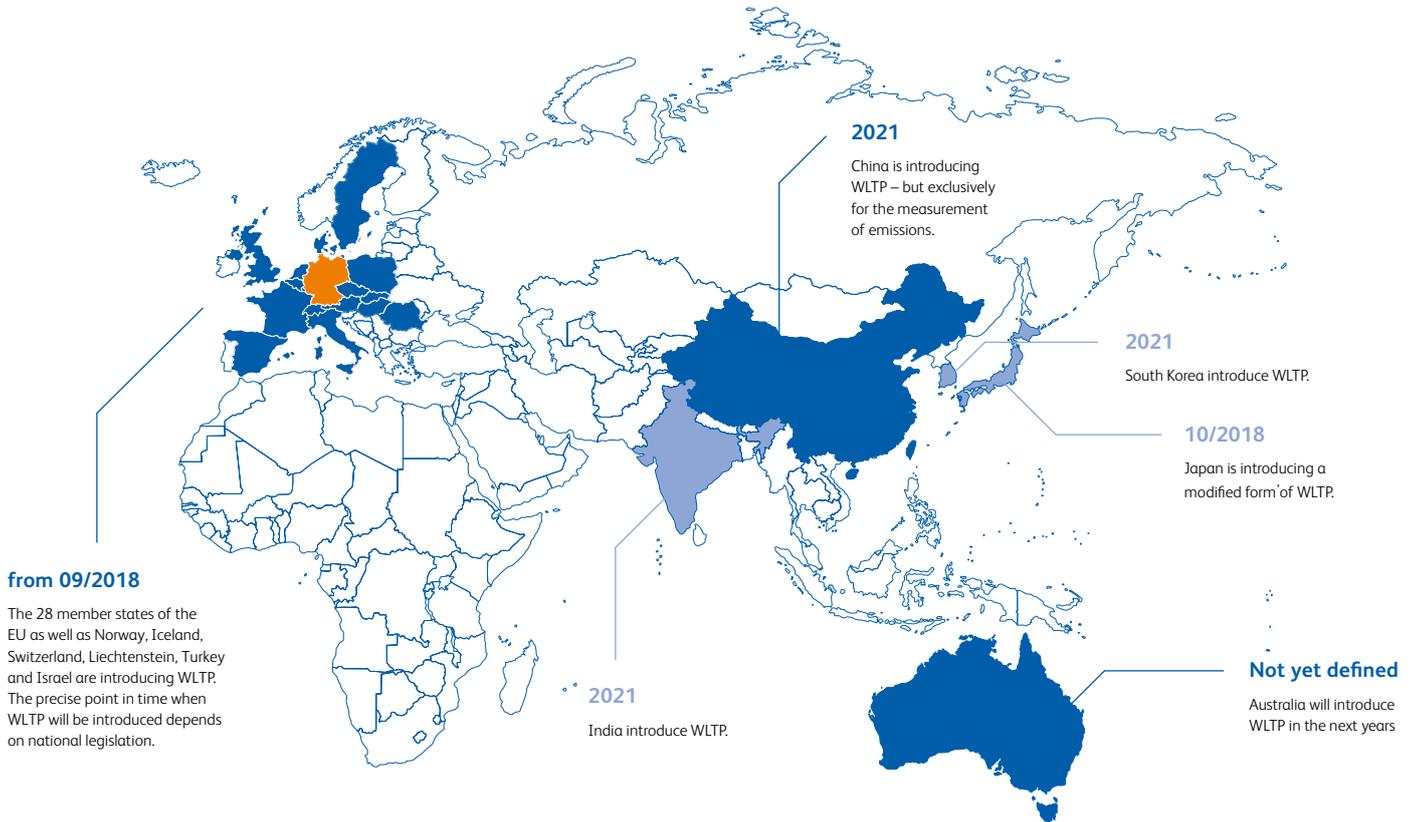
From September 2017, the WLTP will be compulsory for new type approvals. However, the legislator specifies that the values measured with WLTP will initially be communicated with a calculation translating it back to NEDC values. The EU Commission has developed a correlation technique for this purpose, which will be binding to an equal extent on all vehicle manufacturers. This phase is intended to simplify the transition. Its duration will depend on the respective national legislation and will thus vary from market to market.

From September 2018, all manufacturers will be obliged to test in accordance with WLTP for vehicles sold in the EU as well as in Switzerland, Turkey, Norway, Liechtenstein, Israel and Ireland.

**Finally, by December 2020, all countries that adopt the EU legislation for vehicle will have to indicate and communicate WLTP values for all vehicles.**



Please note that all vehicles registered before 01.09.2017 are not affected by the introduction of the WLTP.



**Real driving emissions. Restriction of pollutant values on the road.**

In addition to WLTP, RDE (Real Driving Emissions) will also be compulsory for all vehicle manufacturers in the EU as well as in Switzerland, Turkey, Norway, Liechtenstein, Israel and Ireland from September 2018.

In these RDE tests, the pollutant emissions such as particulate matter and nitrogen oxides (NOx) are measured directly on the road. This method determines average emission values that can be expected during everyday driving.

Today and in the future, the automotive industry is committed to developing innovative technologies to ensure diesel cars’ engines run cleaner and cleaner, by reducing the nitrogen oxides they emit. At the same time, we have reached a tipping point as sustainable mobility and sustainable mobility concepts rapidly gain importance and popularity. This is especially true in urban areas where a growing number of drivers are choosing to join a car sharing scheme and drive electric vehicles or, in the case of companies, vans.

Fleets today are a driving force behind the proliferation of mobility concepts. They have the reach and setup to seamlessly bring greener mobility options to a growing class of eco-minded users. Pairing the latest in technology with the latest in sustainable, flexible mobility solutions gives employees access to innovative ways of transportation.

**Falling Values. Increasing challenge.**

The EU exhaust emissions standard defines the valid limits for exhaust emissions such as nitrogen oxides and particulate matter within the EU. The limits vary according to engine and type of vehicle. For the benefit of climate protection and air quality, the limits undergo increasing intensification. This confronts automobile manufacturers with new challenges.

In case of questions regarding to WLTP or RDE please contact your dedicated account manager at Alphabet or inform yourself in the internet: [www.alphabet.com/en-ww/wltp](http://www.alphabet.com/en-ww/wltp).

**More everyday relevance. Less ambiguity.**

In 1992, the New European Driving Cycle (NEDC for short) was introduced. Since then, this procedure has been used to determine the fuel consumption and emission values of vehicles. However, the conditions of this laboratory test are disadvantageous in determining realistic consumption and emission values.

From September 2018, therefore a new driving cycle called WLTP (Worldwide Harmonized Light Vehicles Test Procedure) is to replace the NEDC. This laboratory test will also be supplemented by an emissions test that measures pollutants directly on the road: RDE (Real Driving Emissions). The new test procedures will enable consumers to better estimate their vehicle’s fuel consumption and emissions in future.

*“The new test will ensure that lab measurements better reflect the on-road performance of a car.”*

European Automobile Manufacturers Association