**New European Driving Cycle (NEDC)**

New European Driving Cycle (NEDC) is a [driving cycle](https://en.wikipedia.org/wiki/Driving_cycle" \o "Driving cycle), last updated in 1997, designed to assess the emission levels of car engines and [fuel economy](https://en.wikipedia.org/wiki/Fuel_economy_in_automobiles" \l "Europe" \o "Fuel economy in automobiles) in [passenger cars](https://en.wikipedia.org/wiki/Automobile" \o "Automobile) (exclude [light trucks](https://en.wikipedia.org/wiki/Light_truck" \o "Light truck) and commercial vehicles). It is also referred to as MVEG cycle (Motor Vehicle Emissions Group). The NEDC, which is supposed to represent the typical usage of a car in [Europe](https://en.wikipedia.org/wiki/Europe), is repeatedly criticised for delivering economy-figures which are unachievable in reality.

**Measurement**

UN Regulation 101

Several measurements are usually performed along the cycle. The figures made available to the general public are:

* Urban fuel economy (first 780 seconds)
* Extra-Urban fuel economy (780 to 1180 s)
* Overall fuel economy (complete cycle)
* CO2 emission (complete cycle)

The following parameters are also generally measured to validate the compliance to [European emission standards](https://en.wikipedia.org/wiki/European_emission_standards):

* [Carbon monoxide](https://en.wikipedia.org/wiki/Carbon_monoxide)
* Unburnt [hydrocarbons](https://en.wikipedia.org/wiki/Hydrocarbons" \o "Hydrocarbons)
* [Nitrogen oxides](https://en.wikipedia.org/wiki/Nitrogen_oxides)
* [Particulate matter](https://en.wikipedia.org/wiki/Atmospheric_particulate_matter)

UN Regulation 8

Some or all of the following parameters are measured depending upon the requirements of the region implementing the test:

* Mass of carbon monoxide (CO)
* Mass of total hydrocarbons (THC)
* Mass of nonmethane hydrocarbons (NMHC)
* Mass of oxides of nitrogen (NOx)
* Combined mass of hydrocarbons and oxides of nitrogen (THC + NOx)
* Mass of particulate matter (PM)
* Number of particulates (PN)

The region implementing the test defines limits for each of the pollutants, for instance the [Euro](https://en.wikipedia.org/wiki/European_emission_standards) level within the EU.

Test procedure

The cycle must be performed on a cold vehicle at 20–30 °C (typically run at 25 °C). The cycles may be performed on a flat road, in the absence of wind. However, to improve [repeatability](https://en.wikipedia.org/wiki/Repeatability" \o "Repeatability), they are generally performed on a roller test bench. This type of bench is equipped with an [electrical machine](https://en.wikipedia.org/wiki/Electrical_machine" \o "Electrical machine) to emulate resistance due to [aerodynamic drag](https://en.wikipedia.org/wiki/Aerodynamic_drag" \o "Aerodynamic drag) and vehicle [mass](https://en.wikipedia.org/wiki/Mass" \o "Mass) ([inertia](https://en.wikipedia.org/wiki/Inertia" \o "Inertia)).

For each vehicle configuration, a look-up table is applied: each speed corresponds to a certain value of resistance (reverse [torque](https://en.wikipedia.org/wiki/Torque" \o "Torque) applied to the drive wheels). This arrangement enables the use of a single physical vehicle to test all vehicle body styles (Sedan, hatchback, MPV etc.) by simply changing the look-up table.