VECTO

Bringing down CO2 emissions and fuel costs of heavy-duty vehicles by promoting transparency, vehicle comparability and competition.
CUSTOMER NEEDS

1. Every transport operator has different needs or a different mission in mind for a truck.
2. Unlike cars, most trucks are custom-built in order to meet these specific requirements; from the cab and the number of axles, to the engine, the body, or even the height of the chassis.
3. That's why trucks literally come in thousands of different sizes and shapes.
4. The same goes for vehicle combinations: one truck or tractor unit may end up pulling very different trailers.
5. All these variables affect the fuel consumption and CO2 emissions of a truck or vehicle combination.
6. Fuel consumption is key for end-users: fuel represents around 30% of their running costs.
7. So in order to buy the right vehicle (the one most suitable for the intended purpose) and to be competitive, transport operators want to be able to make a well-informed purchase decision.

MANUFACTURERS’ INPUT

At the same time, manufacturers want to advise customers when buying a new truck. That is why manufacturers perform precise measurements (following certified procedures in accordance with EU type approval) of all key components that influence the CO2 emissions and fuel consumption of their vehicles, such as:
- Engine performance (load/speed)
- Tyre rolling resistance
- Aerodynamic drag
- Efficiency of axles
- Efficiency of transmission

Manufacturers will input these type-approved data, together with other vehicle information such as weight, into the VECTO tool to run vehicle-specific calculations.

For the first time, there is a level-playing field to compare the fuel consumption of heavy-duty vehicles because all data are certified according to the same processes, regardless of the manufacturer.

VECTO stands for: Vehicle Energy Consumption Calculation Tool

The VECTO computer calculation tool was developed by the European Commission. It uses the certified data provided by manufacturers to calculate the CO2 results for a complete vehicle or truck-trailer combination, considering its possible missions.

To that end, the user picks the model and its particular specifications.

Based on this selection, VECTO calculates vehicle-specific CO2 emissions according to the ‘work done’ principle. That is CO2:

- per volume-km of transported goods
- per tonne-km of transported goods

VECTO provides these vehicle-specific CO2 figures for a variety of possible mission profiles that apply to the selected truck model.
CUSTOMER BENEFITS

1. VECTO gives customers transparent and reliable fuel consumption information.
2. VECTO allows customers to compare the CO2 and fuel efficiency performance of vehicles from different manufacturers.
3. The customer receives certified CO2 values for each truck purchased.

This means that transport operators can choose the most fuel-efficient vehicle more easily, helping them to lower the cost of running a fleet.

SOCIETAL BENEFITS

When it comes to society at large:

1. VECTO stimulates innovation and competition among manufacturers to develop the most fuel-efficient vehicles. After all, end-users will be able to compare the offerings of different manufacturers by using VECTO results.
2. VECTO provides a credible, standardised way of comparing fuel efficiency. It will also give a clear picture of progress in reducing CO2 emissions from trucks.

Hence, VECTO ensures that the most fuel-efficient vehicle combinations are brought onto the market, thereby significantly reducing CO2 emissions from trucks.