

Types of trucks:

BEV trucks

Diesel trucks

FCEV trucks

Input Fields:

Calendar dates:

Base Year

Final year of usage

User data:

Duration of use

Average annual Millleage

Energy data:

Fuel costs

Co2 costs

Ad blue cost

Electricity cost

H2 cost

Infrastructure data:

Infrastructure costs for electric charging stations

Infrastructure costs hydrogen filling station

Basic Costs:

Drive power in kw

Range in km

Reserve in km

Consumption(150kwh/km)

Cost of truck

Percentage of depreciation in 5 years

Operation costs:

Energy costs per year

Maintenance costs per year

Wheels / tires per year

Taxes per year

Insurance per year

Great per km from table

Distance share for great

CO2 compensation from table Other per km)

Output fields:

COST depreciation and COST from operations

Depreciation over term COST from loss of value

COST from infrastructure

COST energy costs / km COST CO2 costs / km

COST maintenance costs / km COST wheels/tires costs / km COST taxes / km

COST insurance costs / km

COST toll costs / km

COST CO2 compensation costs / km COST other / km

COST total operating costs/km

Total COST

CO2 balance GHG market value in €/year

CO2 balance GHG market value in €/operating time)

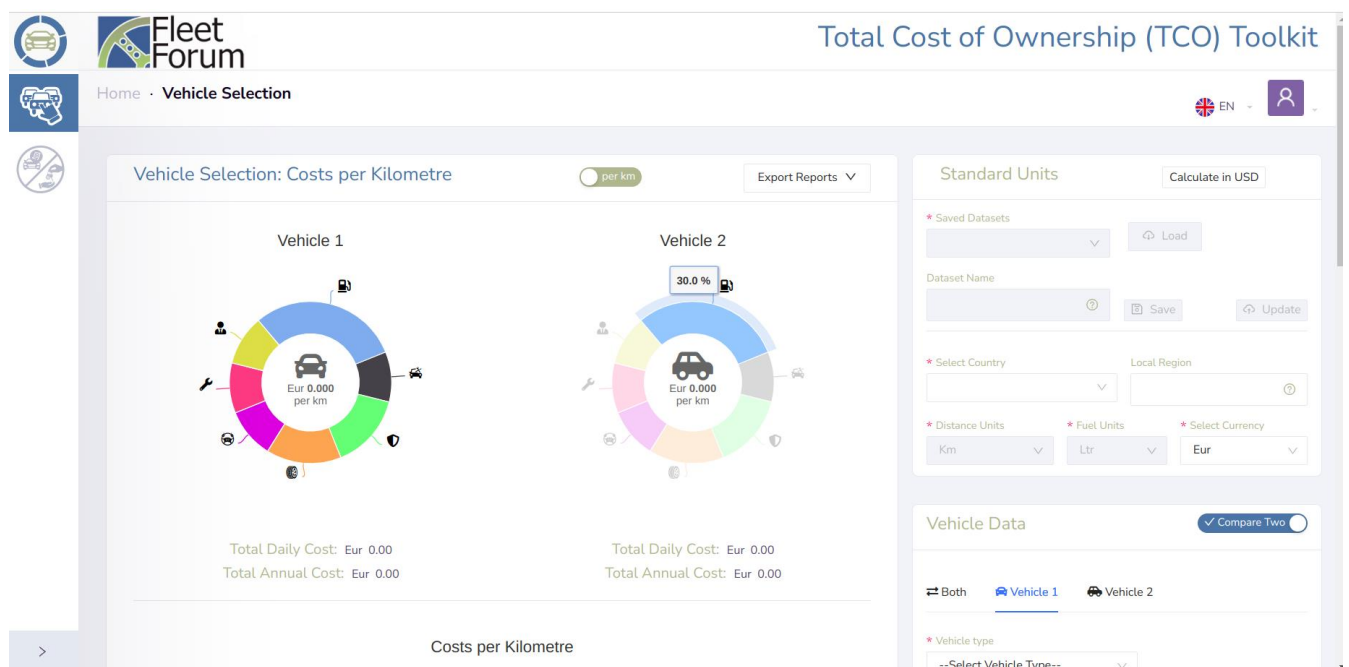
Formulas for TCO calculation:

- **COST Depreciation and COST from Operations**
 - $\text{COST Depreciation} = \text{Cost of Truck} * (1 - (\text{Percentage of Depreciation in 5 years} / 100))$
 - $\text{COST from Operations} = \text{Energy Costs per Year} + \text{Maintenance Costs per Year} + \text{Wheels/Tires Costs per Year} + \text{Taxes per Year} + \text{Insurance per Year} + (\text{Great per km from Table} * \text{Distance Share for Great})$
- **Depreciation over Term:**
 - $\text{Depreciation over Term} = \text{Cost of Truck} - \text{COST Depreciation}$
- **COST from Infrastructure**
 - $\text{COST from Infrastructure} = \text{Infrastructure Costs for Electric Charging Stations (for electric vehicles)} + \text{Infrastructure Costs Hydrogen Filling Station (for hydrogen vehicles)}$
- **COST Energy Costs per km**
 - $\text{COST Energy Costs per km} = \text{Energy Costs per Year} / (\text{Duration of Use} * \text{Average Annual Mileage})$
- **COST CO2 Costs per km**
 - $\text{COST CO2 Costs per km} = (\text{CO2 Costs} / 100) / (\text{Duration of Use} * \text{Average Annual Mileage})$
- **COST Maintenance Costs per km**

- $\text{COST Maintenance Costs per km} = \text{Maintenance Costs per Year} / (\text{Duration of Use} * \text{Average Annual Mileage})$
- **COST Wheels/Tires Costs per km**
 - $\text{COST Wheels/Tires Costs per km} = (\text{Wheels/Tires Costs per Year}) / (\text{Duration of Use} * \text{Average Annual Mileage})$
- **COST Taxes per km**
 - $\text{COST Taxes per km} = \text{Taxes per Year} / (\text{Duration of Use} * \text{Average Annual Mileage})$
- **COST Insurance Costs per km**

$\text{COST Insurance Costs per km} = \text{Insurance per Year} / (\text{Duration of Use} * \text{Average Annual Mileage})$
- **COST Toll Costs per km**(if applicable):
- $\text{COST Toll Costs per km} = \text{Total Toll Costs} / (\text{Duration of Use} * \text{Average Annual Mileage})$
- **COST CO2 Compensation Costs per km**(if applicable):
- $\text{COST CO2 Compensation Costs per km} = \text{CO2 Compensation from Table} / (\text{Duration of Use} * \text{Average Annual Mileage})$
- **COST Other Costs per km**(if applicable):
- $\text{COST Other Costs per km} = \text{Other per km} / (\text{Duration of Use} * \text{Average Annual Mileage})$
- **COST Total Operating Costs per km**
- $\text{COST Total Operating Costs per km} = \text{COST Energy Costs per km} + \text{COST CO2 Costs per km} + \text{COST Maintenance Costs per km} + \text{COST Wheels/Tires Costs per km} + \text{COST Taxes per km} + \text{COST Insurance Costs per km} + \text{COST Toll Costs per km} + \text{COST CO2 Compensation Costs per km} + \text{COST Other Costs per km}$
- **Total COST**
- $\text{Total COST} = \text{COST from Depreciation} + \text{COST from Operations} + \text{COST from Infrastructure}$
- **CO2 Balance GHG Market Value in €/year:**
- $\text{CO2 Balance GHG Market Value in €/year} = (\text{CO2 Compensation from Table} * \text{Average Annual Mileage}) / 100$
- **CO2 Balance GHG Market Value in €/Operating Time:**
- $\text{CO2 Balance GHG Market Value in €/Operating Time} = \text{CO2 Balance GHG Market Value in €/year} / \text{Duration of Use}$

Some Online TCO calculator:



Total Annual Cost: Eur 0.00

Total Annual Cost: Eur 0.00

Costs per Kilometre

Vehicle 1

1

0

Costs per Kilometre (Eur)

Fuel

Admin

Tyres Breakdown

Depreciation

Repair

Labor

Road Tax

Maintenance

Insurance

Both

Vehicle 1

Vehicle 2

* Vehicle type

--Select Vehicle Type--

* Vehicle description

* Fuel / energy price

Eur/Ltr

* Fuel / energy consumption

Km/Ltr

* Acquisition value

Eur

* Maintenance cost

Eur

* Annual insurance cost

Eur

* Cost of tyres

Eur

Repair cost

Eur

Num. of breakdown

/ Year

Avg. breakdown cost

Eur

Annual road taxes

Eur

Disposal method

auCTION

* Disposal value

Eur

Calculate

Reset

Disposal method

auCTION

* Disposal value

Eur

Calculate

Reset Form

Conclusion:

Will be displayed after calculation

Vehicle	Fuel	Labor	Admin	Maintenance	Insurance	Depreciation	Tyres	Breakdown	Repair	Road Tax
Vehicle 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Vehicle 2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Total Cost of Ownership (TCO) Toolkit

This tool helps you calculate and compare the costs of purchasing vehicles vis a vis renting / hiring one. It utilizes your data to determine the expenses incurred on either scenario. It then calculates the costs per day, per year and per kilometre/mile.

Disclaimer

This tool aims to provide guidance around the costs of your fleet; which is only one aspect of fleet management. Fleet Forum is not liable for any consequence of decisions you make using the TCO calculator. You are therefore solely responsible for any reliance you place on information gained from the TCO calculator.

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