Types of trucks:

BEV trucks

Diesel trucks

FCEV trucks

Input Fiels:

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:

TCO depreciation and TCO from operations

Depreciation over term TCO from loss of value

TCO from infrastructure

TCO energy costs / km TCO CO2 costs / km

TCO maintenance costs / km TCO wheels/tires costs / km TCO taxes / km

TCO insurance costs / km

TCO toll costs / km

TCO CO2 compensation costs / km TCO other / km

TCO total operating costs/km

Total TCO

CO2 balance GHG market value in €/year

CO2 balance GHG market value in €/operating time)

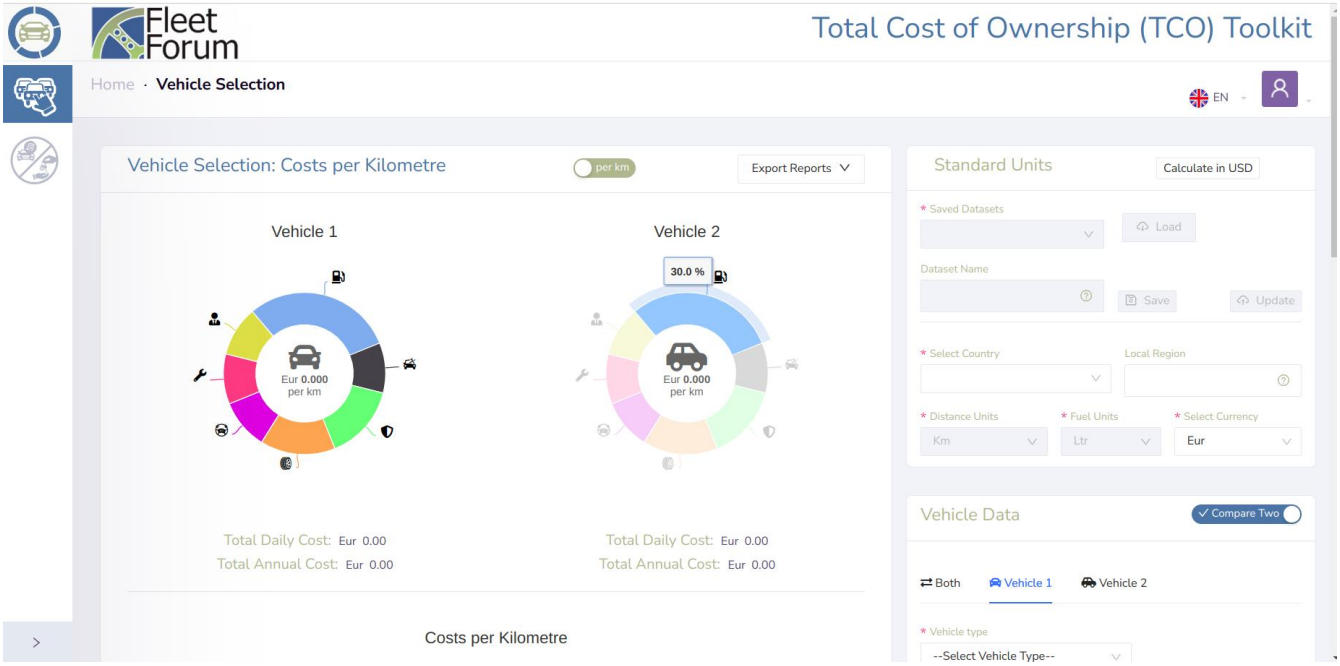
Formulas for TCO calucalation:

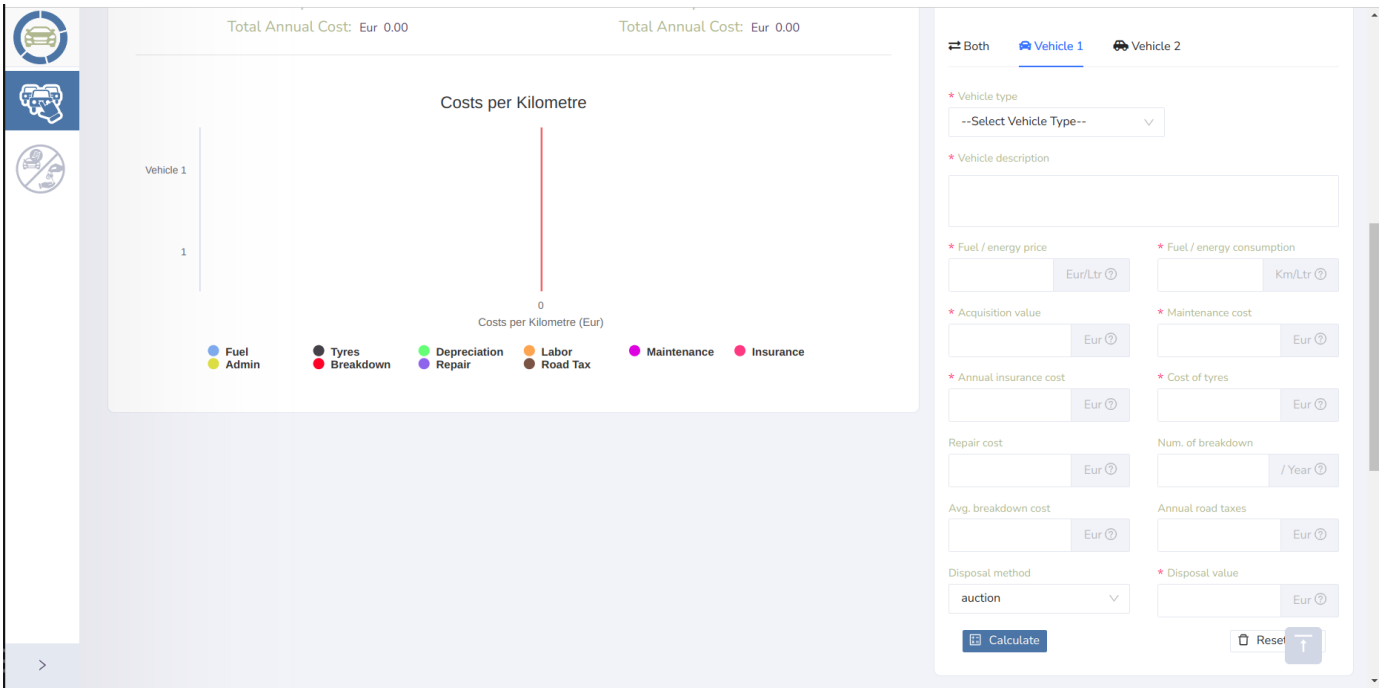
- **TCO Depreciation and TCO from Operations**:
  - TCO Depreciation = Cost of Truck * (1 - (Percentage of Depreciation in 5 years / 100))
  - TCO from Operations = Energy Costs per Year + Maintenance Costs per Year + Wheels/Tires Costs per Year + Taxes per Year + Insurance per Year + (Great per km from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

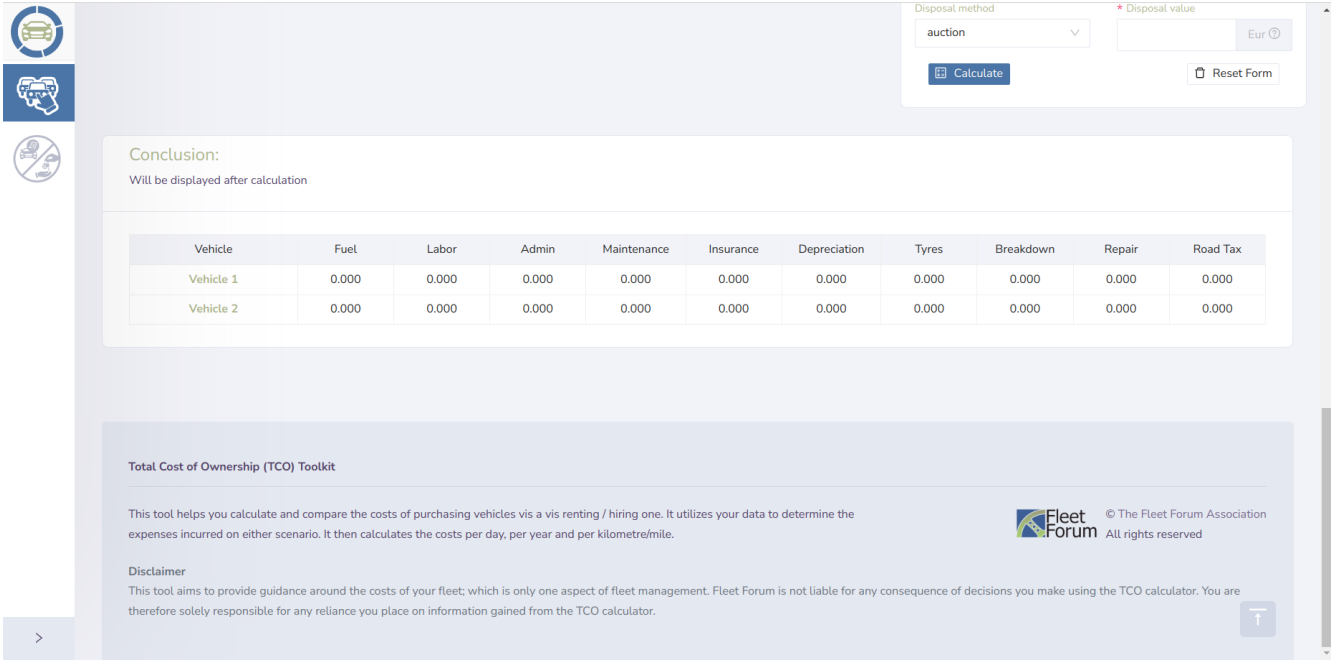
    - TCO Maintenance Costs per km = Maintenance Costs per Year / (Duration of Use * Average Annual Mileage)
- **TCO Wheels/Tires Costs per km**:
    - TCO Wheels/Tires Costs per km = (Wheels/Tires Costs per Year) / (Duration of Use * Average Annual Mileage)
- **TCO Taxes per km**:
    - TCO Taxes per km = Taxes per Year / (Duration of Use * Average Annual Mileage)

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