External Transport Cost Calculator

Quick guide

Input form - standard mode

1 Input mode
In the extended input mode via-nodes and transport specific input parameters can be defined. If an input is done in the extended input mode, it will be lost while switching to the standard mode.

2 Weight and weight type
At weight the user can input the respective netto weight of the transport. There are two units for the weight: Tons [metric tonnes] and TEU [Twenty-foot Equivalent Unit]. The weight type defines the kind of weight and is important for the load factor / empty trip run of the respective transport type.

3 Transport mode
At the standard mode there are four transport modes (Truck, train, sea ship and barge). Every selected transport mode will be calculated as single transport chain.

4 Origin / Destination
Every location (origin, destination, via) can be defined as city district, railway station, harbour, airport or zip code. There fore the can type in the location name and press afterwards the enter button. Now the user can select from the result combo box below the desired location.

5 Start the calculation
The button "calculation" starts the calculation. Meanwhile the calculation a split screen and waiting logo will be shown. After the calculation the result will be shown below the input form.

Input form – extended mode

External Transport Cost Calculator

Input mode: ? [Extended ▽]

Weight: ? [100] [Tons ▽] Type: ? [average goods ▽]

1 Climate Costs: [IMPACT handbook medium ▽] Value: [25] €/tCO$_2$

2 Accident Costs: [IMPACT - Truck: marginal cost from IMPACT; Rail: average accident cost from IMPACT ▽]

Origin
Locationtype [City district ▽] Name [[de] Hannover] ✎
☑ On-site rail track available ?

Type of transport

	Type of transport	Vehicle type ?	Emission standard ?	LF ?	ETF ?	Ferry routing ?		
TC 1 🚚	[Truck ▽]	[24-40 t ▽]	[EURO-III ▽]	[60%]	[20%]	[avoid ▽]	**3**	↩✖

TC 2   **Transferpoint**   [Railway station] HANNOVER HBF   **4**   **5**

	Type of transport	Train weight ?	Emission standard	LF ?	ETF ?	Ferry routing ?		
🚆	[Train ▽]	[1000 t]	[electrified ▽]	[60%]	[50%]	[avoid ▽]		↩✖

Transferpoint   [Railway station] KASSEL HBF

[Add transport chain]

Destination
Locationtype [City district ▽] Name [[de] Kassel] ✎
☑ On-site rail track available ?

[reset] [calculate]

1 **Climate cost**
At this entry the user can select the desired calculation method for the climate cost of a freight transport. If the user selects "Own values" he can input at the value field his own climate cost factor. For more information please read the methodology report.

2 **Accident cost**
Via the combo box it is possible to choose a respective accident cost calculation model. The entry "Own values" enable new entry fields for individual accident cost factors. For more information please read the methodology report.

3 **Characteristic of a transport**
A transport between two locations depends in the first row of the type of transport. The main entries are the vehicle type/train weight, emissions standards, load factor and empty trip factor. The External transport cost calculator suggests the entries for a typical characteristic, but the user has also the possibility to change it.

4 **Transfer points**
Transfer points will be displayed automatically if the transport type is a train (stations), sea ship (harbour), barge (harbour) or air plane (airport).

5 **Add / remove via point**
With the "blue arrow" button the user can add a via location at the respective transport chain. The "red cross" deletes a via location. If no via point include the transport chain will be deleted from the input form.

Calculation result

The result will be shown below the input parameters.

The used methodology for accident cost is Medium - Truck: Marginal cost with damage potential allocation (UIC study); Rail: average cost values from UIC study and the climate change is calculated with 25.0 €/tCO.

Transport Chain TC 1

Distance [km]	Carrier	Origin	Destination
169,98	Truck	[City district] [de] Hannover	[City district] [de] Kassel

Summary: 169,98 km

Country specific distance [km]
Germany: 169,43

Transport Chain TC 2

Distance [km]	Carrier	Origin	Destination
146,43	Train [electrified]	[City district] [de] Hannover	[City district] [de] Kassel

Summary: 146,43 km

Country specific distance [km]
Germany: 146,43

Please consider that there are actual no calculation for accident cost for sea ship and barge transports.