

MRV-formula: The sum of all consumption divided by the sum of all transport work for each trip

Cf Carbon footprint - realized consumption

Consumption = 10 ton (realized consumption)
 Distans 82,5 km (distance Helsinki-Tallinn)
 Passengers = 857 persons (realized average for one year)
 Cargo = 1191 ton (realized average for one year)

$$\frac{(\text{Consumption} \times 1000 \times 1000) \text{ g}}{((\text{Dist} \times \text{Cargo})\text{ton-km} + (\text{Dist} \times \text{Passengers})\text{pax-km})} = \frac{10\,000\,000}{98\,258 + 70\,703} = \frac{10\,000\,000}{168\,960} \Rightarrow \mathbf{59,19}$$

Consumption g/tp-km * 3,15 (CO2) = 186,43

Passenger allocation 0,8 = **149,15 g/pax-km**

Cargo allocation 0,2 = **37,29 g/ton-km**

Cf footprint - certified

Consumption = 10 ton (realized consumption)
 Distans 82,5 km (distance Helsinki-Tallinn)
 Passengers = 2500 persons (passenger certificate issued by Traficom)
 Cargo = 6000 ton (cargo capacity - IMO load line certificate)

$$\frac{(\text{Consumption} \times 1000 \times 1000) \text{ g}}{((\text{Dist} \times \text{Cargo})\text{ton-km} + (\text{Dist} \times \text{Passengers})\text{pax-km})} = \frac{10\,000\,000}{495\,000 + 206\,250} = \frac{10\,000\,000}{701\,250} \Rightarrow \mathbf{14,26}$$

Consumption g/tp-km * 3,15 (CO2) = 44,92

Passenger allocation 0,8 = **35,94 g/pax-km**

Cargo allocation 0,2 = **8,98 g/ton-km**