ECOVIAGEMCP SUPPOSITIONS

Environmental, economic and energy impact simulator comparing road and rail transport.

The environmental, economic and energetic impact Simulator – "ECOViagem-CP" has been designed by CP – Comboios de Portugal, E.P.E. in partnership with the IDMEC - Instituto de Engenharia Mecânica (pólo IST).

The results given by the "ECO-ViagemCP" take into account the following suppositions:

1. 45% of the vehicles on the national roads use petrol while the other 55% use diesel (data from 2016);

2. Rush hour (periods of most road traffic and demand for rail services) is between 7h30 – 9h30 and 17h00 – 19h30;

3. The distances covered by a car on journeys outside the cities are 6% shorter than those covered by the train while in the cities the inverse is true and car journeys are 6% longer;

4. Trains taken into consideration: Alfa Pendular, Intercidades, Regionais, InterRegionais, Lisbon, Oporto and Coimbra Urban Trains.

5. Calculation of emissions:
   a) Car: EMEP/EEA* methods; calculation of the life cycle of fuel production;
   b) Diesel powered trains: EMEP/EEA* methods; calculation of the life cycle of fuel production;
   c) Electric powered trains: CP Sustainability Report

6. Electricity/fuel consumption:
   a) Car: EMEP/EEA* methods;
   b) Trains: according to the technical specifications given in the rolling stock manuals.

7. Costs:
   a) Car: includes fuel costs for a standardised vehicle plus motorway tolls wherever applicable; Excludes: costs related with paying off the vehicle, insurance, services and parking fees in the case of urban routes;
   b) Train: cost of buying a ticket for the journey in question.

* Air Pollutant Emission Inventory Guidebook 2019

COMBOIOS DE PORTUGAL