

EcoPassenger

A short introduction

Why EcoPassenger?

More than a quarter of greenhouse gases emissions come from the transportation sector, and more important, it is the sector where we have seen the highest growth in these emissions the last decades and it is not stopping.

The International Union of Railways would like to do its part by:

- increasing the awareness among transportation users about the consequences of our everyday travel choices
- giving support to decision makers on how to facilitate sustainable choices
- challenging the existing methodologies by taking into account the whole energy chain and include the life cycle costs of energy

What is EcoPassenger?

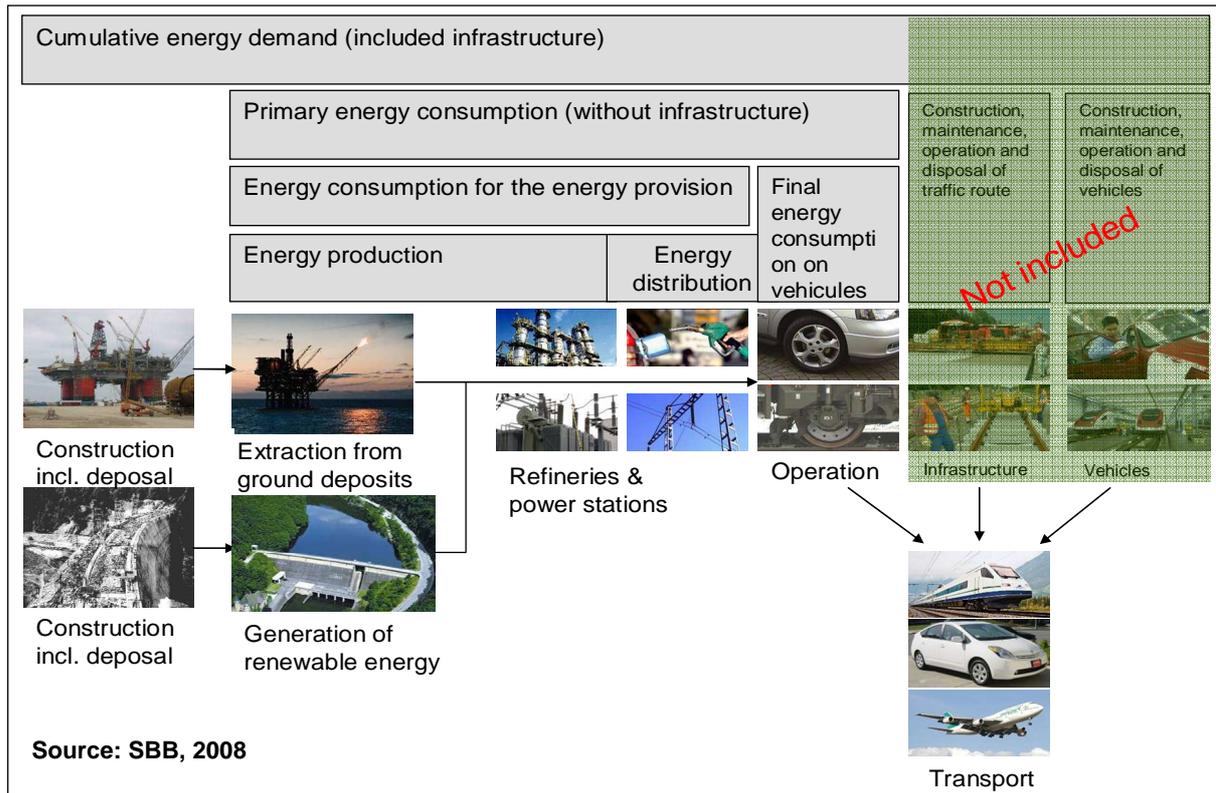
- A user-friendly internet tool with a sound scientific methodology.
- A calculator to compare the energy consumption, CO₂- and exhaust atmospheric emissions for planes, cars and trains for passenger transport in Europe
- ...fed with the best available data for all modes
- ...covering most countries in Europe
- ...developed in cooperation between UIC, its European members, Ifeu (the German Institute for Environment and Energy) and IVEmBH (routing system and software)



What is the basis of the methodology?

EcoPassenger does not only calculate the energy or the fuel it takes to run the train, car or the plane. The calculations include the emissions from the cumulative energy consumption (as seen below) including the energy used to produce the electricity or the fuel, in a “well to wheel”-perspective.

This is the energy consumption included calculations:



- EcoPassenger is built on detailed energy data from European railways (the UIC energy/Co2 database).
- EcoPassenger contains detailed information about the national trains and national routing instead of European averages.
- EcoPassenger is using the best available data and routing information for car and plane.
- EcoPassenger allows you to change the settings and adapt them to your personal trip

For more details on the methodology:

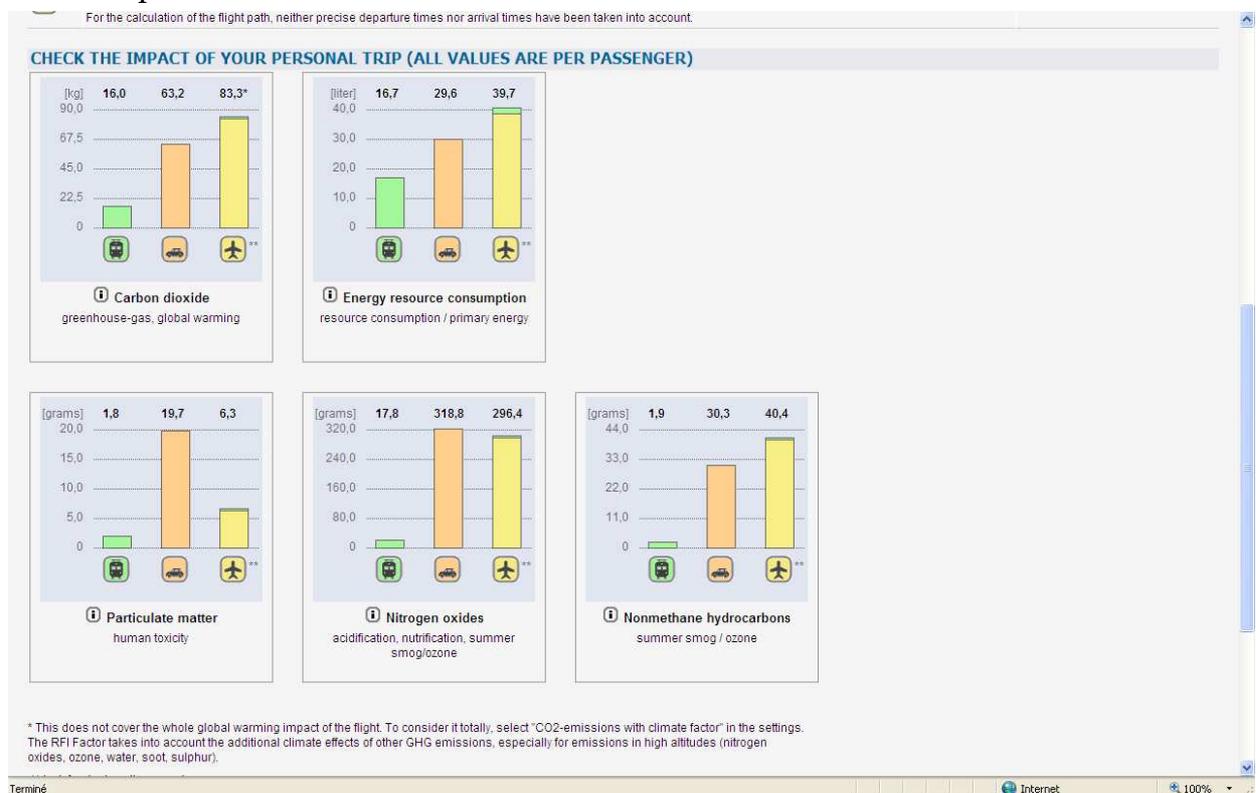
Please check out the methodology document available from www.ecopassenger.org and www.ecotransit.org.

How to use www.ecopassenger.org?

Choose your route, day and time...:

The screenshot shows the EcoPassenger website interface. At the top left is the UIC logo (International Union of Railways). The main heading is "EcoPassenger". On the right, there are language options: English, Français, Deutsch. Below the heading is a yellow banner with the text "Calculate the environmental impact of your personal journeys through Europe". The main content area is divided into several sections: "CHOOSE YOUR ROUTE" with "From:" and "To:" input fields; "CHOOSE YOUR TIME" with "Date:" (set to Th, 19.06.08) and "Time:" (set to 21:30) fields, and a "Calendar" icon; "ABOUT" with links for "What is EcoPassenger?" and "Methodology report"; and "START YOUR SEARCH" with a "Search connection" button and a "New request" link. At the bottom left, there is small text: "Timetable valid from 09.12.07 to 13.12.08. Software/Data: HAFAS 5.24.UIC-ECOCALCULATOR 4.7/5.24.UIC-ECOCALCULATOR 4.7 - 19.06.08 © 2008 HaCon Ingenieurgesellschaft mbH. All information is issued without liability. Imprint".

...for example from Paris to Frankfurt:



...based on the calculations of the energy consumption, the EcoPassenger generates:

- the CO₂-emissions (*greenhouse gas*)
- the particulate matter (*human toxicity, greenhouse effects*)
- the nitrogen oxides (*acidification, human toxicity, summer smog*) and
- the non methane hydrocarbons (*summer smog / human toxicity*)

for the train, a car and a plane on this distance.

The result shows that the train performs far better than the car and the plane on energy consumption and emissions between Paris and Frankfurt.

Background:

The International Union of Railways (UIC) is the worldwide organisation for international cooperation among railways and promotion of rail transport at a global level.

Founded in 1922, it currently gathers 201 members on all 5 continents, among them railways, rail operators, infrastructure managers, railway service providers, public transport companies, etc.

The UIC main mission is to promote rail transport across the world, in order to cope with current challenges of mobility and sustainable development by enhancing international cooperation between its members and building a consistent railway system.

www.uic.asso.fr