

EcoPassenger & EcoTransIT

Why EcoPassenger and EcoTransit?

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.

In this context, railways offer a very sustainable way of transportation as the most efficient mode in terms of energy consumption and CO₂ production.

The EcoPassenger and EcoTransit methodology would like to help the sector in:

- increasing the awareness among transportation users about the consequences of the choices we make in their everyday life
- 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 are EcoPassenger and EcoTransit?

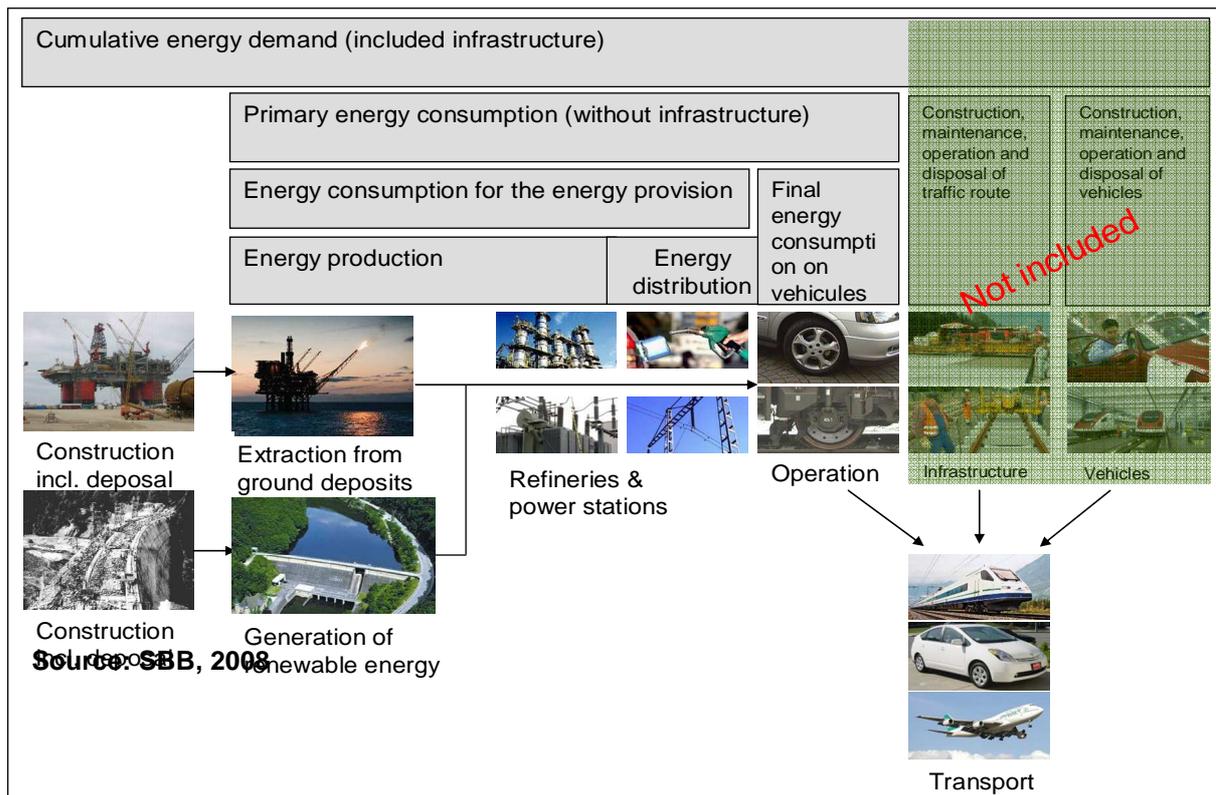
- Two user-friendly internet tools with sound scientific methodology.
- EcoPassenger is a calculator to compare the energy consumption, CO₂- and exhaust atmospheric emissions for planes, cars and trains for passenger transport in Europe
- EcoTransit is a calculator to compare the energy consumption, CO₂- and exhaust atmospheric emissions for planes, trucks, ships and trains for freight transport in Europe
- ...fed with the best available data for all modes
- ...developed in cooperation with Ifeu (the German Institute for Environment and Energy) and technical providers of European routing systems
- ...developed in cooperation between UIC, its European members, Ifeu (the German Institute for Environment and Energy) and IVEmBH (routing system and software)



What is basis of the methodology?

EcoPassenger and EcoTransIT do 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 allows you to change the settings and adapt them to your personal trip
- EcoPassenger and EcoTransIT are using the best available data and routing information for car and plane.

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 title is "EcoPassenger". There are language options: English, Français, Deutsch. A yellow banner says "Calculate the environmental impact of your personal journeys through Europe". Below this are two main sections: "CHOOSE YOUR ROUTE" and "CHOOSE YOUR TIME".

CHOOSE YOUR ROUTE

From:
To:

CHOOSE YOUR TIME

Date: Th, 19.06.08
Time: 21:30

ABOUT

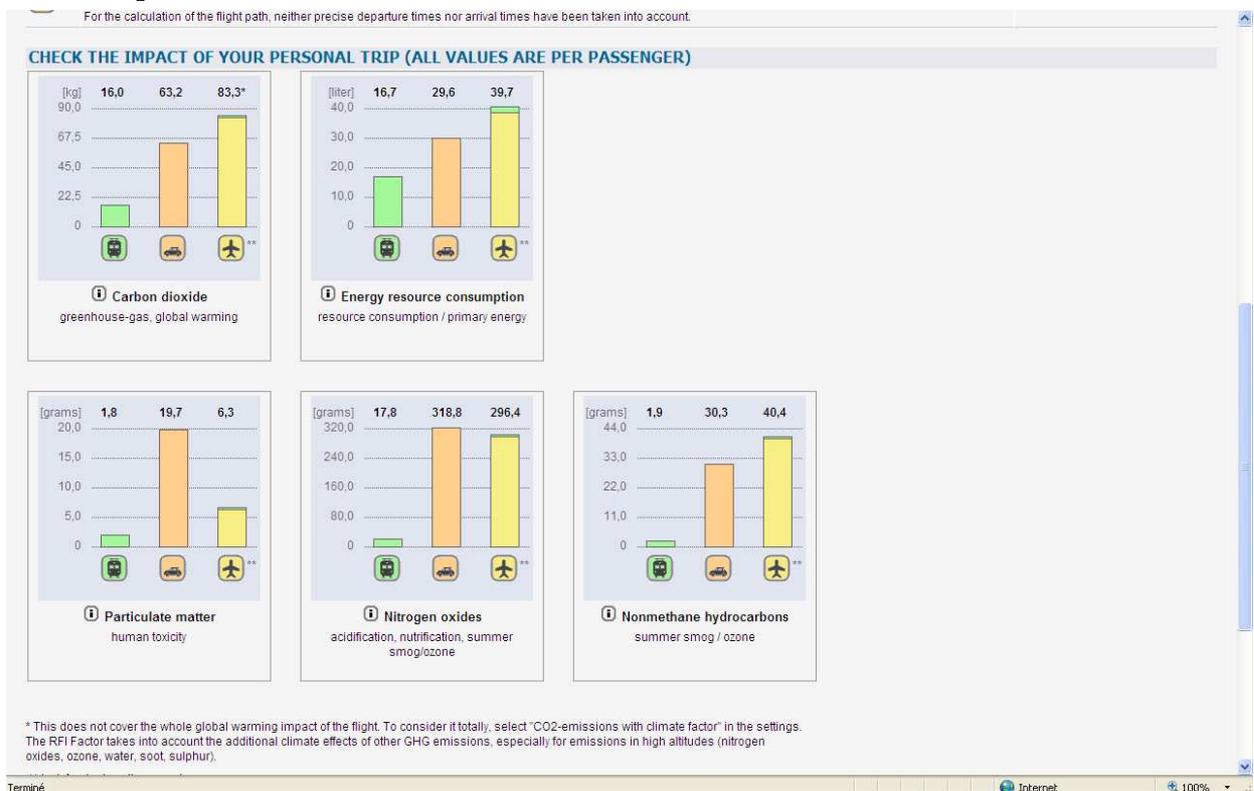
[What is EcoPassenger ?](#)
[Methodology report](#)

START YOUR SEARCH

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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
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...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.

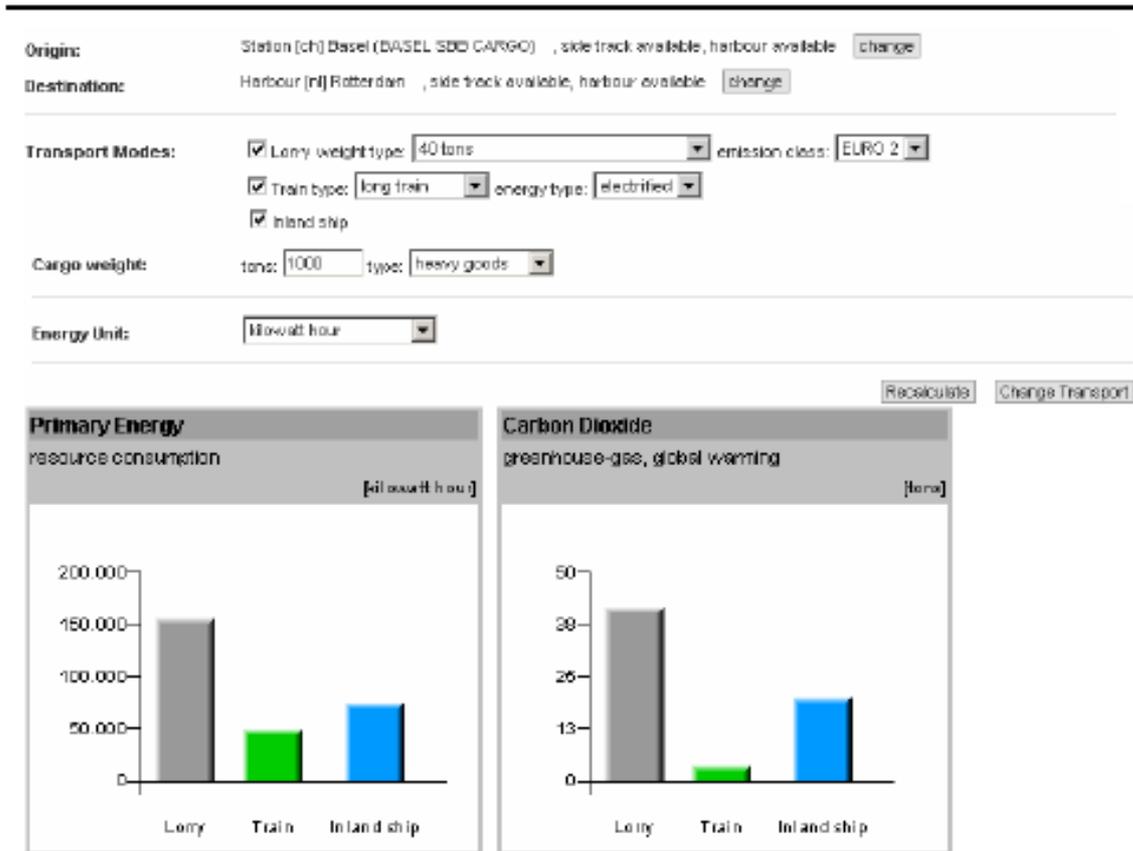
The result shows that the train performs far better than the car and the plane on energy consumption and emissions between Paris and Frankfurt.

How to use www.ecotransit.org?

The same principle as for Ecopassenger, you choose a route, day and time...

...for example a case study between Basel – Rotterdam:

A Swiss-based chemical company ships its products from Basel to Rotterdam. In addition to the rail link, the route along the Rhine includes the option of using either road transport or Rhine barges. An analysis of the eco impact from inland ship, train and truck by using EcoTRANSIT shows that on this route rail has a clear ecological advantage over the other two options. It is of course also possible to add plane as an alternative transport mode.



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.