



The Voice
of European
Railways



INTERNATIONAL UNION
OF RAILWAYS

Press release

25 May

Report shows clear advantages of rail when calculating external costs

A study analysing the external costs of transport, carried out by a team of independent consultants, has confirmed the strong advantages of the rail sector when considering the wider social and environmental impacts of different transport modes.

The study, undertaken by consultants CE Delft, INFRAS and ISI for the International Union of Railways (UIC), found that per passenger-km, the external costs of cars or aviation are about four times those of rail transport, with a similar pattern for freight transport. Road transport is responsible for the overwhelming share of total external costs with a share of 93%. Passenger cars have a share of about 62%, followed by trucks (14%), vans (9%), motorcycles (5%) and buses (4%). From the non-road modes, passenger aviation (internal -European flights only) has the largest share in external costs with about 4%. Rail transport is responsible for less than 2% for both passenger and freight transport. Inland waterways (freight) only 0.3%. In total about 76% of the costs are caused by passenger transport and 24% by freight (see graph hereafter)

The total external cost of transport in the EU-27 (without Malta and Cyprus, but including Norway and Switzerland) amounted to more than €500 billion (2008 figures) - about 4% of total GDP. If congestion costs are included, this amounts to an additional 0.9%-1.9%, bringing the total impact of externalities to between 5% and 6% of GDP.

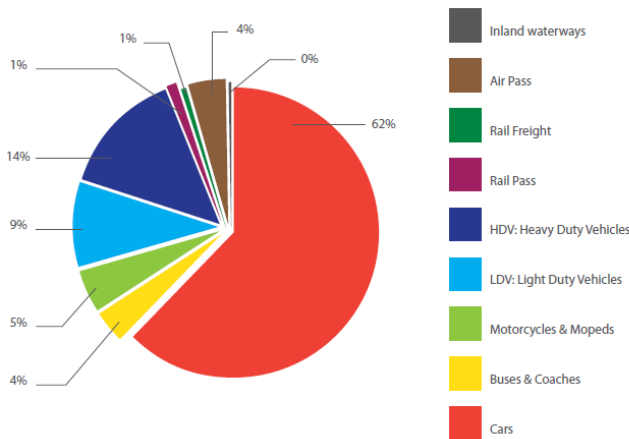
The external costs approach works by deciding on a monetary value for each impact (noise, CO₂, air pollution, accidents, etc) and then calculating the total impact for each mode. The total and average cost estimates provide a strong basis for comparing the environmental burden of various transport modes and can also be used for general policy development by the Commission and by member states. Another application could be in cost benefit analysis for transport infrastructure projects, and the results of the study can also be used as a basis for transport pricing strategies.

These results come at a crucial time in the European transport policy debate. The better use of price signals through the internalisation of external costs was one of the main planks of the 2011 EU White Paper on Transport. The latest revision of the Eurovignette Directive, completed in 2011, also now allows Member States to calculate tolls for road freight that includes charges for air pollution and noise.

UIC Director General Jean-Pierre Loubinoux said *“This landmark report is yet another clear indication of the benefits of the rail sector in environment, social and economic terms. It shows that rail has a key role to play in the development of a green economy”*.

CER Director General Libor Lochman said *“These new figures underline the costs involved that society currently has to bear rather than individual users. We therefore hope that the Commission will push ahead with plans to further internalise external costs that would produce fairer competition between the different modes of transport, and create the conditions for modal shift in*

Total external costs of transport 2008 by transport mode



The Average External Costs

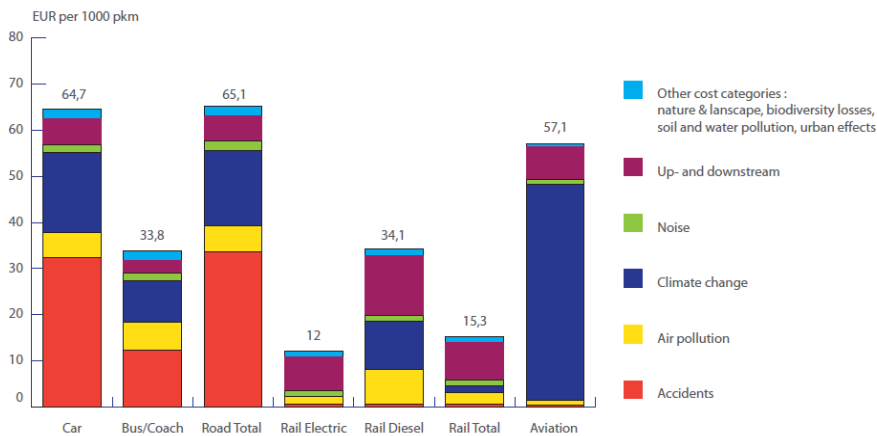
Total costs divided by traffic volumes indicate the average costs for each transport mode. It allows for an intermodal comparison, calculating the costs that could be avoided by means of shifting from one mode to another one with less external impact.

When considering the charts below it becomes clear that average external costs for road transport are more than four times higher than rail for passenger and more than six times higher for freight services (excluding congestion).

Average external costs 2008 for EU-27: passenger transport

(excluding congestion)

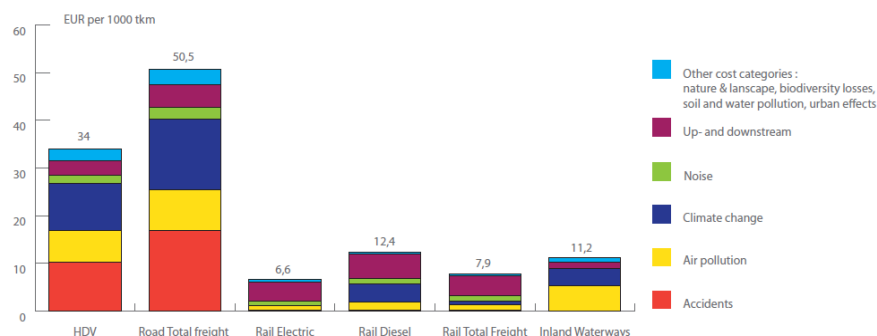
without motorcycles and mopeds²



Average external costs 2008 for EU-27: freight transport

(excluding congestion)

without LDV³



Note to Editors:

- This UIC-commissioned report was carried out by an independent team of consultants. It is the latest update in a series of studies commissioned by UIC on external costs - previous studies from 1995, 2000, and 2004 are widely known and cited in the scientific and political area.
- This report updates the previous report taking into account various methodological advances in the field and the accession of several Eastern European countries into the EU, which has had a considerable impact on the European transport sector.
- Internalisation of the external costs of transport means that the taxes and charges paid by each mode are equal to the costs they impose to society. Once all the costs are internalized then transport users take all costs into account in their decision making. When beneficial to them, transport users will change their behaviour, resulting in changing vehicle type, vehicle utilisation, transport mode or even their overall transport volume.
- The final report and a summary version of the study are available on the [UIC](#) and [CER](#) websites.

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The Community of European Railway and Infrastructure Companies (CER) brings together more than 70 European railway undertakings and infrastructure companies. CER represents the interests of its members towards the European institutions as well as other policy makers and transport actors. CER's main focus is promoting the strengthening of rail as essential to the creation of a sustainable transport system which is efficient, effective and environmentally sound. For more information, see www.cer.be

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UIC, the international railway association which celebrates its 90th anniversary this year, counts 200 members across 5 continents (railway companies, infrastructure managers, rail-related transport operators, etc.). UIC's members represent 1 million kilometres of lines, 2,800 billion passenger-km, 9,500 billion tonne-km, and a workforce of 6.7 million people.

UIC's chief task is to promote railway transport around the world and support its members to meet all the current and future challenges of mobility and sustainable development.

UIC's cooperative undertakings aim to boost the railway system's competitiveness and interoperability, particularly on an international scale. The 700 technical leaflets which make up the "UIC Code" constitute a technical benchmark across the globe.

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