

**European Rail Infrastructure Managers
Energy and Greenhouse Gas Emission Strategies in the Transport Sector**

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- **The problem:**
Energy dependence of transport and resulting contribution to global warming

Transport accounts for 21 percent of total greenhouse gas (GHG) emissions¹ in Europe. Whereas overall emissions fell by almost 8 per cent between 1990 and 2004, those from transport increased by 32 percent. *Only the rail sector recorded a decrease in emissions!*

- **The opportunity:**
Benefits of rail transport and actions by infrastructure managers

Trains predominantly use electricity, as opposed to the oil derived products that other modes use. This makes rail traffic the most energy efficient mode. Indeed, it emits a very *small part* of total transport emissions which can be partly explained by the larger volumes transported by the other modes. However, scientific analysis also shows that CO₂ emissions per passenger kilometre are considerably lower for rail compared to road and air transport², passing a factor 10 for high speed services compared to short haul flights! From this data it can be firmly concluded that rail has a stronger carbon dioxide performance than other transport modes.

In order to maintain this competitive environmental advantage, rail seeks to continuously improve its own performance. In addition, trade associations are currently discussing a sector commitment to 20 percent reduction of CO₂ emissions from 1990 to 2020.

As part of the collective rail sector effort to further reduce CO₂ emissions, infrastructure managers are also implementing additional measures e.g. traction efficiency is improved and supply system leakages are analysed and reduced, to reduce electricity use even further. In addition, infrastructure managers increasingly generate their own electricity by using renewable energy sources.

- ***Role of authorities in driving the aim of CO₂ friendly transport***

“The best contribution the rail sector can make to the environment is to increase its share of the transport market”.

Rail can only deliver its potential environmental benefits if it is competitive. Therefore, as a minimum, a level playing field between all modes is needed. However, in the European transport sector prices are distorted by the political framework for taxation, subsidies etc. The principle of ‘polluter pays’ is commonly agreed, but still does not apply in practice. It is therefore extremely important that the Commission introduces legal proposals to internalise all external costs of

¹ Source: European Environment Agency (EEA), 2007.

² Source: ATOC, March 2007 and AEA Technology, October 2006.



transport on a European level. A major step in this direction is expected from the Commission in June 2008.

Contrary to its own environmental goals, the EU still allocates the lion share of its available subsidies³ to road infrastructure investment. Rail transport as *the* energy- efficient transport provider should however be funded at equal levels. A positive example for this is set in the Commission's funding proposals for TEN-T projects in 2007-2013.

Finally, the rail sector could achieve an even better performance if it could increase the quality and availability of train paths for freight services. The promise of a "Freight Oriented Network", recently introduced by the Commission, builds on the creation of corridor structures by the Member States and infrastructure managers as part of the development of ERTMS.

³ This refers in the first place to European Structural and Cohesion Funds, and EIB loans.