

**EEA Core Set of Indicators - CSI 036**  
**Freight transport demand**  
**May 2005 assessment**

working draft

**About this document**

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## Key policy question: Is freight transport demand being decoupled from economic growth?

**Key message:** Freight transport volume has grown fast, and has generally been coupled with the growth in GDP. Consequently the objective of decoupling GDP and transport growth has not been achieved so far. Closer inspection reveals great regional differences with faster than GDP growth in the old member states and slower than GDP in the new member states. This is primarily a result of the economic restructuring in the new member states over the past decade.

Freight transport demand has grown significantly since 1992, thereby making it increasingly difficult to limit the environmental consequences of transport. But underlying the almost parallel growth is a more complex picture. Freight transport demand has grown significantly faster than GDP in the 15 old member states where as the picture for the 10 new member states is the opposite.

For the 15 old member states the primary explanation is that the internal market is leading to some relocation of production processes causing additional transport demand growth over and above the regular growth in GDP. For the new member states the main reason is the large shift in production away from traditional relatively heavy low value industry towards higher value production and services. This coupled with strong economic growth means that freight transport growth does not keep up with GDP growth.

Both of the effects are temporary effects but data does not contain any indication that real decoupling is taking place.

The share of alternative modes (rail and inland waterways) in freight transport has declined during the last decade. As a result, the objective of stabilising the shares of rail, inland waterways, short sea shipping and oil pipelines, and to make for a shift of balance from 2010 onwards, outlined in the Common Transport Policy (CTP) will not be achieved unless a strong reversal of the current trend is achieved.

The development can be explained by looking the type of the goods transported. This plays an important role in mode choice. Perishable and high value goods require fast and reliable transportation - road transport is often the fastest and most reliable form of transport available, providing much flexibility with pickup and delivery points. Agriculture products and manufactured goods belong to the most important goods transported throughout Europe. Their shares in tonne-kilometres are also rising.

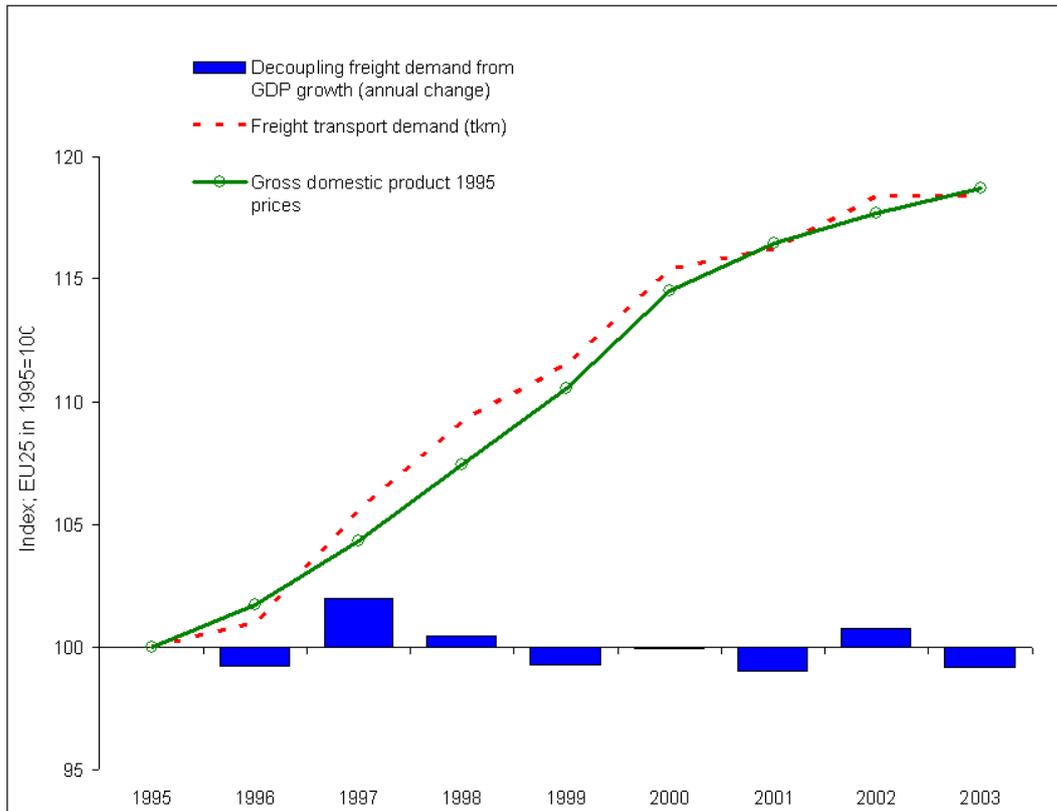
Because the transport system allows it modern production prefers 'just-in-time' delivery of goods. Transport speed and flexibility are therefore of great importance. Despite congestion, road transport is often faster and more flexible than rail or water transport. Besides, due to spatial planning and infrastructure development, many destinations can only be reached by road and combined transport is only practised to a limited extent.

Furthermore the road sector is liberalised to a great extent, while the inland waterway and rail sectors have only relatively recently been opened up for broad competition.

Finally the average tonne of goods carried by road travels about 110 km, a distance over which rail or inland waterways are less efficient because road transport is needed to and from the points of loading. Moreover, in using multi-modal transport for such short distances valuable time will be lost due to lack of standardisation of loading units and convenient and fast connections between inland waterways and rail.

For short sea shipping the average tonne of goods is carried over 1430 km. Here, time is less an issue. The low price of shipping is probably of overriding importance.

Fig. 1: Trend in freight transport demand and GDP, index 1995=100



**Data source:** Eurostat.

**Note:** The unit to measure freight transport demand is the tonne-kilometre (tkm), which represents the movement of one tonne over a distance of one kilometre. It includes transport by road, rail and inland waterways. The decoupling indicator is calculated as the ratio of freight transport demand to GDP measured in 1995 market prices. The bars depict the intensity of transport demand in the current year in relation to the intensity in the previous year. An index above 100 results from transport demand outpacing GDP growth (i.e. positive bar = no decoupling) whereas an index below 100 is explained by transport demand growing less rapidly than GDP (i.e. negative bar = decoupling).



## **Specific policy question: Is the share of goods transported by road being reduced relative to other transport modes?**

As part of the modal-split indicators project, Eurostat is working on methods regarding the calculation and territorial attribution of maritime freight transport. Total freight transport demand currently includes road, rail and inland navigation.

The modal split indicators are structural indicators. Any change regarding the methodology (i.e. possible inclusion of maritime transport) will be reviewed and incorporated in the core set indicator as soon as Eurostat validates the data. The (possible) inclusion of a new mode would have a dramatic effect on the modal split shares and therefore we will not publish these shares until Eurostat's finalises its work this year.