

## European Commission

### Review of the Common Transport Policy

Task 2.3: Germany

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#### Prepared for:

European Commission  
Directorate-General Energy and Transport  
DM 28 - 0/110  
Avenue du Bourget, 1  
B-1049 Brussels (Evere)  
Belgium

#### Prepared by:

Steer Davies Gleave  
28-32 Upper Ground  
London  
SE1 9PD  
  
+44 (0)20 7910 5000  
[www.steerdaviesgleave.com](http://www.steerdaviesgleave.com)

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# 1 Introduction

1.1 This paper builds on the assessment of individual objectives in Task 1 to take a more in-depth look at what the Common Transport Policy has achieved in Germany against the following objectives:

- Market Opening;
- Service Quality and User Rights; and
- Environmental Sustainability.

1.2 It concludes with a broader statement of the overall key impacts of the CTP for Germany.

1.3 For context, this introductory section presents a brief overview of German transport policy and of the most significant transport trends in Germany in the past decade.

## *Institutional set up*

1.4 Germany consists of 16 federal states. The central government and the federal states share responsibilities on the definition and implementation of transport policies.

1.5 At national level, transport policy is predominantly determined by the Federal Ministry of Transport, Building and Urban Affairs (BMVBS). The Ministry is responsible for setting up a policy framework as well as to secure, to design and to promote the transportation system. The legislative competence for transport policy is with the Federal Parliament and the Federal Council.

1.6 Several Federal Authorities work under the BMVBS, namely the Federal Motor Transport Authority [Kraftfahrtbundesamt], the Federal Office for Freight Transport [Bundesamt fuer Gueterverkehr], the Federal Office of Aviation [Bundesluftfahrtamt] and the Federal Railway Authority [Eisenbahnbundesamt] which have independent duties and responsibilities. The Federal Network Agency [Bundesnetzagentur] is the regulator for the rail network. Responsibility for marine and inland water transportation is with the Water and Shipping authorities, which operate at federal state level.

1.7 As the Federal Ministry of Finance allocates the budgets, it has a significant importance for all major investment decisions related to transport.

1.8 The central government is responsible for motorways and the federal road network; however, the related executive authorities are at the federal state level. The central government is also responsible for the rail network infrastructure.

1.9 The federal states have legislative power through the Federal Council and can therefore influence most legislation related to transportation. In addition, as mentioned above, they fulfil certain tasks on behalf of the central government (for example administration of motorways and federal roads), they decide the level of regional rail services and they are responsible for the infrastructure they own, such as ports and airports.

- 1.10 The most notable responsibility of the federal states is the provision of all regional public transport within their region. The regional rail transport market was regionalised in 1996 and federal governments award regional rail transport services in competitive tenders. The federal states receive 'regionalisation funds' in order to finance this task.
- 1.11 Local authorities are responsible for planning, building and maintaining local and municipal roads as well as providing local public transport within their area by tendering the services.
- 1.12 Furthermore, local authorities have a major influence on other transport related issues, as spatial and urban planning competencies are mainly at the municipal level.

***Application of European policies***

- 1.13 The overarching programming strategy applied by the German Government is the Federal Transport Network Plan [Bundesverkehrswegeplan]. The plan is supposed to be published every 10 years. It sets out the overarching objectives of transport policy, defines demand scenarios which are taken as a basis of capacity requirements, ranks potential projects by applying a special type of cost benefit analysis and prioritises those projects which have the highest benefits with regard to the overarching objectives. After consultation of the federal government and of the federal states, the plan has to pass parliament and becomes an act.
- 1.14 The last Federal Transport Network Plan was published in 2003 and most of its objectives (listed below) are in line with the 2001 EU Transport White Paper:
- Removing transport bottlenecks;
  - Modernizing the rail network;
  - Relieving congestion and enhancing the quality of life in towns and villages by constructing 300 bypasses;
  - Enhancing the competitiveness of the maritime industry by upgrading hinterland connections;
  - Strengthening the infrastructure in Eastern Germany;
  - Investment in the existing networks of all modes of transport;
  - Promoting modern transport technologies (Transrapid, Galileo).
- 1.15 The current government has agreed on several policy objectives which go beyond the Federal Transport Network Plan. These objectives are shown in the Coalition Agreement [Koalitionsvertrag] between the Social Democrats and Christian Democrats<sup>1</sup>.
- 1.16 Furthermore the current government has published policy papers and launched several programmes, most notably:
- Integrated Transport Policy - towards a mobile future;

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<sup>1</sup> See:

<http://www.bundesregierung.de/Webs/Breg/DE/Bundesregierung/Koalitionsvertrag/koalitionsvertrag.html>

- Road Bypass Programme for small and medium sized cities;
- The anti-congestion programme;
- The Master Plan for Freight Transport and Logistics;
- Intelligent Transport System for Motorways;
- Road Safety Programme; and
- The National Cycling Plan.

### *Transport trends*

- 1.17 In Germany, motorways and high speed rail networks have experienced significant expansion since the mid-1990s: in particular the high speed rail network doubled in length, from 447km in 1995 to 1,300km in 2007. By contrast, the conventional rail network shrunk as a result of the transformation process occurring in Eastern Germany, while inland waterways remained stable in coverage.
- 1.18 As far as passenger transport demand is concerned, overall, the German public transport market has grown significantly since the mid-1990s thanks to the sharp increase registered in rail passenger volumes, which more than compensated the slight decrease experienced by the bus and coach markets.
- 1.19 At the same time, more recently, there has been a significant reduction in the pace of growth of car transport demand: between 2000 and 2007 its average annual growth<sup>2</sup> was 0.6% against 2% experienced between 1990 and 2000 (when car demand moved from 683 to 831 billion passenger kilometres).

**TABLE 1.1 PASSENGER LAND TRANSPORT DEMAND 1995-2007**

	Cars	Bus and coach	Railway	Of which High Speed	Urban rail
<b>Billion passenger km (1995=100)</b>					
1995	815.3 (100)	68.5 (100)	71 (100)	8.7 (100)	14.4 (100)
2000	831.2 (102)	69.0 (101)	75.4 (106)	13.9 (160)	14.7 (102)
2007	869 (107)	65.37 (95)	79.34 (112)	22 (253)	15.9 (110)
<b>Modal share</b>					
1995	83.4%	7.0%	7.3%		1.5%
2000	82.8%	6.9%	7.5%		1.5%
2007	82.6%	6.2%	7.5%		1.5%

Note: values in brackets ( ) are indices (1995=100). High Speed traffic includes both High Speed and long distance rail, which runs on the conventional rail network. Source: EU energy and transport in figures 2009 / Verkehr in Zahlen 2007/2008

<sup>2</sup> Computed as Compound Annual Growth Rate.

## Task 2 - Germany

- 1.20 Domestic and international air passenger demand grew by an average of 4.6% p.a. between 2001 and 2006 reaching a total volume of 179 million passengers in 2006.
- 1.21 In the freight market, rail and road haulage transport volumes grew significantly in the 1995-2006 period, while waterway and pipelines stagnated or grew only slightly.
- 1.22 In recent years, rail freight transport has also been able to slightly increase its market share: rail freight share moved from 16% in 2000 to 17% in 2006, while the modal share of road haulage increased from 68% in 2001 to 70% in 2006. However, it should be noted that the growth in rail freight transport, which started in 2001, occurred after this mode had lost both volume and market share in the aftermath of the German reunification and the corporatisation of Deutsche Bundesbahn in 1994.

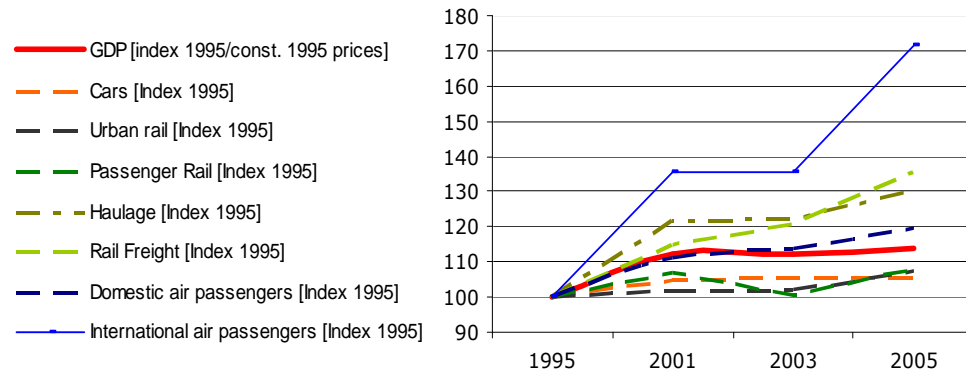
**TABLE 1.2 FREIGHT LAND TRANSPORT DEMAND 1995-2006**

	Road haulage	Railway	Inland waterways	Pipelines
<b>Bil TKM (1995=100)</b>				
1995	280 (100)	71 (100)	64 (100)	17 (100)
2000	346 (124)	83 (117)	67 (104)	15 (90)
2006	432 (154)	107 (152)	64 (100)	16 (95)
<b>Modal share</b>				
1995	65%	16%	15%	4%
2000	68%	16%	13%	3%
2006	70%	17%	10%	3%

Note: values in brackets () are indices (1995=100). Source: EU energy and transport in figures 2009 / Verkehr in Zahlen 2007/2008

- 1.23 Freight cargo has also grown significantly - particularly at the North-Sea ports, while growth at the Baltic-Sea ports - which experienced significant growth in the 1990ies - has slowed down in most recent years.
- 1.24 Finally, with respect to the decoupling of transport demand from GDP growth, the figure below shows that in Germany whilst some decoupling occurred in the passenger market (except for air transport), both rail and road freight transport growths performed markedly above GDP.

FIGURE 1.1 GDP VS. GROWTH IN TRANSPORTATION SECTOR [INDEX 100=1995]



Source: Elaboration on Verkehr in Zahlen 2007/2008

### Structure for the remainder of the analysis

1.25 The purpose of the case study is to identify:

- where the responsibility for implementation of elements of the Common Transport Policy rests within the EU Member State, how effective this implementation has been; and
- whether the wider transport policy that has been followed by the EU Member State is consistent with the Common Transport Policy.

1.26 In what follows we will present the analysis undertaken for the following policy areas:

- Market Opening;
- Service Quality and User Rights;
- Environmental sustainability.

## 2 Market opening

- 2.1 The legislative and regulatory framework of the EU Common Transport Policy has been transposed into national law. However, market barriers and market imperfections beyond the framework hinder real competition in some sectors, most notably long distance coach services and long distance domestic and international rail services, as discussed below.

### *Qualitative analysis*

- 2.2 The qualitative analysis is undertaken through an assessment of the progress towards each measure identified for market opening. The rest of the study presents a deeper discussion of the assessment as summarised in Table 2.1.

TABLE 2.1 ASSESSMENT OF MEASURES FOR MARKET OPENING

Measure	Assessment
Improving the framework conditions for market opening in rail freight transport	The EU requirements for organisational separation, separate accounting and independence of decision making have been fulfilled. The First Railway Package was transposed into national enactment through the new National Railway Act. However, it is not clear the extent to which the change in the legislative framework conditions has effectively stimulated competition.
Opening up the national and international rail freight market	As for the previous point, there has been transposition although some reservations remain with regard to practical implementation. Furthermore, concerns have been raised that inadequate capacity is provided to new entrants.
Opening up the international rail passenger market	National and international open access services in Germany have been deregulated. However, market share for new entrants is insignificant in the international market. The only significant operator is Berlin Night Express, which offers a non-daily night train service linking Berlin and Malmo in Sweden.
Propose a common legal framework for the provision of port services	Germany has not been able to set a national legal framework for the provision of port services, though it is under discussion. Current operators and the dock workers have opposed any change to the present situation, fearing a decline in revenue and a negative impact on working conditions and employment. A major reason for the delay in the publication of the port packages is the fact that ports policy is set at a federal, Lander and local level and so it is difficult to coordinate policy well and agree a way forward.

- 2.3 In order to assess the effectiveness of the measures taken by Germany we have analysed below:
- the specific measures Germany has taken to implement the EU measures discussed for market opening;
  - other policy measures Germany has taken relating to market opening;



■ whether these policy measures have had any impact in Germany.

*Specific measures taken by Germany to implement/enforce EU legislation*

- 2.4 All relevant European legislation has been transposed into national legislation although, in the rail sector, some stakeholders have raised concerns about how this has been done.
- 2.5 The First Railways Package was transposed through the new General Railway Act [Allgemeines Eisenbahngesetz (AEG)] which came into force on the 30<sup>th</sup> of April 2005. This Act also opened up the rail passenger market.
- 2.6 In particular, article 9a of the AEG transposed rules related to the separation of functions between rail infrastructure and operations. Decisions on capacity allocation and track charges must be independent of decisions made by railway operators. Where vertical integration remains, decisions on infrastructure management have to be made by staff having no role in train operating companies.
- 2.7 Following the transposition of these laws, independent operating companies and infrastructure managers have been set up. Deutsche Bahn created a holding under which independent companies for rail operations and infrastructure management operate. The infrastructure manager is separate in functional, legal, organisational and accounting terms.
- 2.8 The General Railway Act (AEG) secures non-discriminatory access to all service facilities, as stated in Annex II No.2.
- 2.9 In 2006 the Federal Network Agency was set up as an independent regulatory authority responsible for enforcing competition in all network utilities, including the rail network. Its decisions are immediately enforceable but the agency can not impose fines. The Federal Railway Authority [Eisenbahnbundesamt] is responsible for the homologation of rolling stock. It reviews the applications from the railway undertakings for compliance with the technical specifications for interoperability (TSI) and the national rules (Eisenbahn - Betriebsordnung).
- 2.10 As for local public transport, in 1996 the application of EU Regulation 1893/91 led to the adoption of the Regionalisation Act [Regionalisierungsgesetz]. The act regulates the award of regional rail transport services in competitive tenders and the allocation of 'regionalisation funds' to the federal states in order to fund these services. Parts of Regulation 1893/91 have also been transposed in some of the Public Transport Acts published by the federal states [ÖPNV-Gesetze der Länder] and into the National Passenger Transport Act [Personenbeförderungsgesetz].

*Other policy measures undertaken by Germany relating to market opening*

- 2.11 The speed at which other public transport markets have opened varies markedly between mode, sector and region.
- 2.12 In the rail sector, market opening has been taken further than the requirements at EU level as the Regionalisation Act introduced the award of regional rail transport services in competitive tenders and also opens the market for national and international passenger services.
- 2.13 With some exceptions, urban transport is still lacking competition. While municipalities and cities have the option to use competitive tenders, most authorities hardly use this instrument. Frankfurt on Main is one of the few exceptions putting the majority of its services to tender. It must be noted though

that some service types, such as school transport and transport for people with reduced mobility, have indeed experienced significant market opening in recent years. In 2006 two thirds of all bus services put to tender were school services and services for people with reduced mobility, indicating that the market segment is the most dynamic with regard to competition.

- 2.14 With regard to long distance coach services, Germany has a unique regulatory structure. In order to protect both long and short distance railway services from competition, the National Passenger Transport Act [Personenbeförderungsgesetz] does not permit the licensing of any bus routes which are parallel to an existing rail link. There are a few notable exceptions:

- long distance coach services from and to Berlin and on some routes within the 'New Länder' (because of inherited licenses);
- cross border long distance bus services: domestic cabotage is permitted on these routes;
- a few Airport Coach Services, where concessions have been granted if the rail link was insufficient.

- 2.15 Therefore, the German market for long distance coaches is relatively closed, and the EU legislation has not helped improve the situation as it applies to international services (Regulation EC 684/92) or is limited to cabotage services operated on a temporary basis (Regulation EEC 12/98).

### *Impact of the policy measures within Germany*

- 2.16 The German aviation market is relatively open compared to other sectors. Following the three EU liberalisation packages in 1988, 1990 and 1993 the sector has seen dynamic growth and a significant decrease in prices. Between 1995 and 2005, passenger demand has increased by more than 50% while average fares for all carriers have seen a significant decrease over the same period of time.
- 2.17 With respect to rail liberalisation, it is not clear the extent to which the change in the legislative framework has stimulated competition. Various stakeholders have raised concerns with regard to the access and allocation of train paths and new market entrants have issued a relatively high amount of referrals to regulatory bodies (the Federal Railway Authority in its role as national safety authority and the Federal Network Agency) within the last few years. This suggests that in many cases inadequate capacity is provided to new entrants, which might explain why the market still lacks strong new entrants.
- 2.18 In the freight market, although Germany is the country with the highest number of licenses issued (there are currently 380 licenses for railway undertakings issued in Germany - 319 of which can only operate freight services<sup>3</sup>), the market remains concentrated with the incumbent operator dominating, although new entrants have more than doubled their market share in recent years. In 2007, Railion (controlled by DB) had a freight market share of 80.3% (based on tonne-km). Rail4Chem, TX Logistik, SBB Cargo, HGK and Connex (all of which also operate international traffic)

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<sup>3</sup> It must be pointed out that in Germany the number of published licences is not a suitable indicator for the level of competition as most of them have been given to small regional private operators that don't even operate services.

can be regarded as the most dynamic and active new entrants: they have been successful in market niches such as block train traffic and intermodal traffic. However Railion remains dominant in the market and is likely to strengthen its position through further acquisitions.

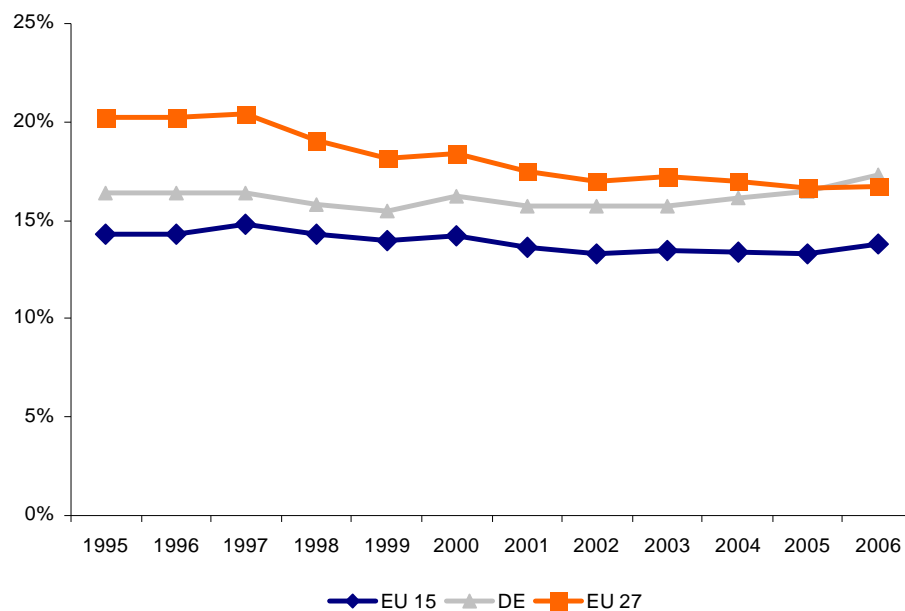
- 2.19 Nevertheless, it is important to note that competitors of Railion were able to increase their market share from 6.9% in 2003 to 16.4 % in 2006 (based on tonne-km) while the overall freight market share for rail increased from 16% to 17.3% during the same period.
- 2.20 For passenger services, while the market for rail services is open, there has been little entry and as such its effectiveness can be called into question. The market share of new entrants in the international market is negligible. DB remains the dominant operator for international long-distance services inside and outside Germany. The majority of the remaining operators are incumbent operators from neighbouring countries (eg. Trenitalia, SBB, ÖBB with which DB has bilateral agreements) or subsidiaries jointly owned by Deutsche Bahn and another incumbent operator (eg. Thalys). The only exception is the Berlin Night Express mentioned above.
- 2.21 The main barriers to entry in this market remain the lack of available second hand long distance vehicles and of leasing companies, as well as a lack of access to required train paths.
- 2.22 In addition, this market is exposed to competition from low cost airlines and road traffic, which seem to have contributed to a general decline in international long-distance passenger journeys; however, no statistical evidence is available to support this statement as national figures do not distinguish between domestic and international long-distance rail journeys.
- 2.23 In the regional rail transport market, the Regionalisation Act led to the entrance of new operators and to quality improvements. In 2006 the market share of DB-Regio, the incumbent operator, was 82.5% of train-km, and the process of tendering has increased the pressure on all operators to deliver better quality. In particular, significant improvements have been made with regard to the quality of rolling stock. Between the adoption of the Regionalisation Act (1996) and 2006 regional train-km rose by 28% and passenger trips rose by 33%.
- 2.24 Overall, the economic effect of liberalisation on transport users varies significantly between the different transport sectors. Air passengers are those who have benefited most from the opening of this market. Some progress has been made also in the rail freight market where the presence of a number of competitors has led to downward pressure on the price of rail freight transport.
- 2.25 Other than in these sectors, the benefits gained from liberalisation have not been translated into a decrease in fares - which rose above RPI - nor have frequencies been improved significantly.
- 2.26 Significant cost reductions have been achieved in regional and urban public transports on those networks where services have been tendered. However, savings have rarely been passed on to users, either in terms of lower fares or in terms of increased frequencies. Part of the gains obtained have been used to shift the costs of funding public transport from the taxpayer to passengers, which is in line with the general principle of the CTP of encouraging the user to pay for transport.

- 2.27 Users of long distance rail and those of long distance coach services have not significantly benefited from liberalisation as most operators hold an intra-modal monopoly on almost all routes served. However, for long distance rail routes, the competition from aviation has encouraged the incumbent rail operator to introduce more and cheaper tickets [Spartickets] on long-distance domestic and international routes. This may change on some routes following international passenger liberalisation from January 2010. However, this is likely to be concentrated on high speed routes that can better compete with air services and in particular low cost services.

#### *Quantitative analysis*

- 2.28 Rail freight slightly increased its market share from 16% in 2000 to 17% in 2006. In comparison, the market share of road haulage increased from 68% in 2000 to 70% in 2006. It should be noted though that the growth in rail started from a relatively low base in 2001 after the sector had lost both volumes and market share in the aftermath of German reunification and the corporatisation of Deutsche Bundesbahn in 1994.
- 2.29 For the period 2003 - 2006 there is correlation between market share growth in rail freight and the doubling of that part of the market taken by new entrants encouraged by liberalisation. This suggests that new entrants are, in part, winning new business for the rail freight market overall as well as taking traffic from Railion.

FIGURE 2.1 RAIL FREIGHT MARKET SHARE BETWEEN 1995 AND 2006

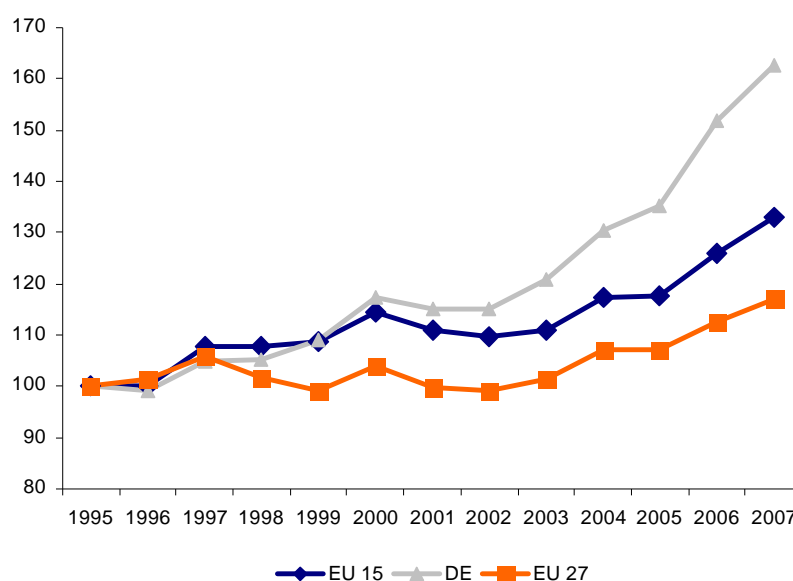


Source: EU energy and transport in figures 2009 / Verkehr in Zahlen 2007/2008

- 2.30 Rail freight grew from 70.5 billion tonne-km in 1995 to 115 billion tonne-km in 2007, with growth rates significantly above the EU 15 and EU 27 averages. However, as discussed above, the high growth in volumes followed a steep decline in the beginning of the 1990s. It should also be noted that, from 1999 onwards, there has

been a change in the definition of rail tonne-km<sup>4</sup>, which is responsible for a jump of between 6 and 7% in tonne-km between 1998 and 1999 and partially explains the positive evolution of rail freight in Germany between 1995 and 2007.

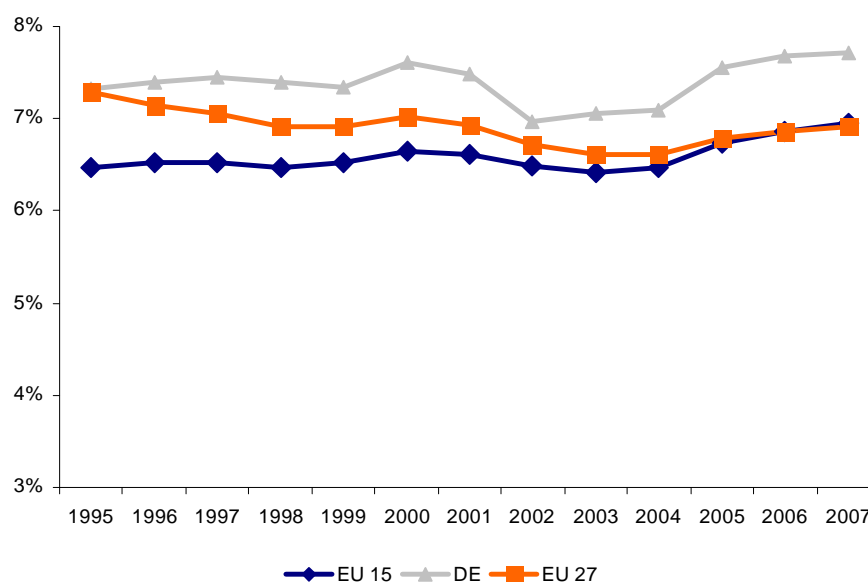
FIGURE 2.2 RAIL FREIGHT VOLUMES BETWEEN 1995 AND 2007 (1995=100)



Source: EU energy and transport in figures 2009

- 2.31 Rail passenger demand market share (measured in passenger kilometres) was more or less stable since 2000.

FIGURE 2.3 RAIL PASSENGER MARKET SHARE BETWEEN 1995 AND 2007

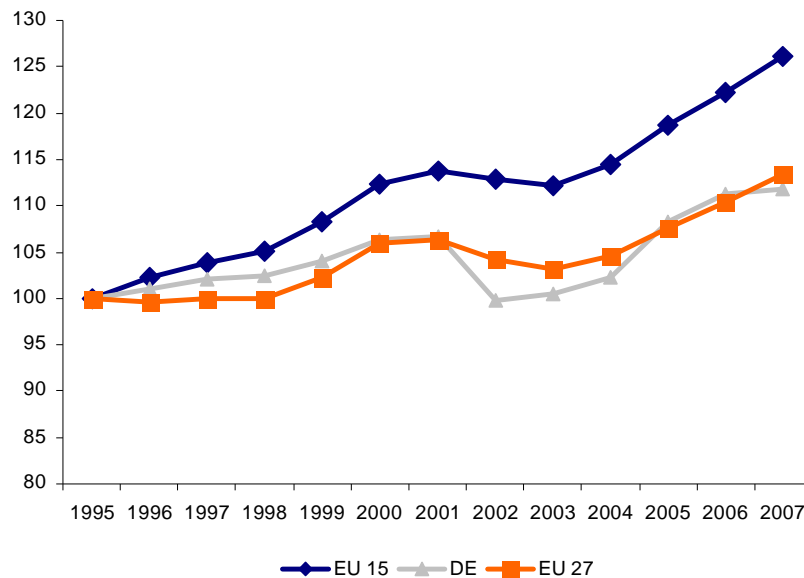


Source: EU energy and transport in figures 2009

<sup>4</sup> Data between 1999 and 2007 include the weight of containers ("gross-gross weight") while up until 1998 the weight of intermodal containers is not included ("gross weight").

- 2.32 Rail passenger kilometres in Germany increased in line with the EU27 average.

FIGURE 2.4 RAIL PASSENGER KILOMETRES BETWEEN 1995 AND 2007 (1995=100)



Source: EU energy and transport in figures 2009

### Conclusions

#### *The overall impact of the policy*

- 2.33 The legislative and regulatory framework of the EU has been transferred into national law and, in some circumstances (e.g. rail passenger market) Germany has also taken liberalisation beyond them. However, the presence of market barriers and market imperfections still hinders real competition in some sectors.
- 2.34 The objective of improving the framework conditions for market opening has been mostly achieved in the aviation sector, following the three EU liberalisation packages in the 1990s. Here, connectivity between Germany and the rest of Europe has been improved through cheaper, more frequent direct flights.
- 2.35 Inter-modal competition with air has also encouraged the incumbent rail operator to introduce more and cheaper tickets [Spartickets] on long-distance domestic and international routes.
- 2.36 The objective of opening the rail freight markets and improving the framework conditions has been achieved while some reservations remain with regard to practical implementation. This has contributed to the increase in rail freight transport volumes and modal share registered in recent years, which have outstripped the EU average. On the passenger side there has been little entry in the international market, but entry in the regional market has led to quality improvements for the passenger.

#### *Contemporary developments - Lessons learnt and going forward*

- 2.37 Although liberalisation in aviation has progressed there are still a number of issues currently being debated, such as:

- hidden subsidies paid by local authorities and federal states to regional airports and/or low-cost airlines;
  - inter modal distortion of competition through non-taxation of kerosene;
  - slot allocation and grandfather rights at airports which operate at capacity;
  - a lack of national infrastructure policy with regard to airport capacity.
- 2.38 Regulation (EC) No 1370/2007 will have an impact on the framework set by the Regionalisation Act on opening the market for regional rail services. In particular, it might slow down the process of putting further services to tender.
- 2.39 German transport policy is currently focusing on selling a stake in the incumbent rail operator Deutsche Bahn and listing this on the stock exchange. The main objective is to make more private capital available for the investments needed. However, the current proposal has come to a standstill and it is unlikely to be progressed within the current government term.

### 3 Level of service quality and user aspects such as passenger rights

- 3.1 The section presents the actions taken by Germany to implement the CTP measures discussed for the protection of passenger rights for which Member States have the responsibility for implementation; it also provides an assessment of the wider transport policy that has been followed by the country in this field.
- 3.2 Table 3.1 below identifies where Member States have responsibility for implementation of the Common Transport Policy, and where Germany has taken other measures which are consistent with (or contradict) the policy.

**TABLE 3.1 ASSESSMENT OF MEASURES FOR PASSENGER RIGHTS**

Measures	Assessment
Publish information on the performance of different airlines	This action was to be undertaken by the Commission and there were no specific obligations for the States.  In Germany no further actions have been undertaken.
Improve passenger protection in case of denied boarding, delays or cancellations	Regulation 261/2004, which requires compensation and assistance to be provided to passengers in the event of air transport delays, cancellations and denied boarding, places a number of obligations on Member States. It requires States to create a National Enforcement Body to handle complaints; and requires the State to introduce sanctions for non-compliance which are effective, proportionate and dissuasive.  In Germany this enforcement body is the Federal Office of Civil Aviation [Bundesluftfahrtamt]. It is the official ombudsman for passengers. The Office has set up a service for dealing with customer complaints and enforcing passenger rights. It currently has 10 members of staff.  There are similar obligations in Regulation 1371/2007, on the rights and obligations of rail passengers. This has not yet come into effect. However, planned national legislation is likely to be introduced in mid-2009.
Ensure conditions of contract are fair	There are no specific requirements relating to Member States. However, either the Federal Office of Civil Aviation [Bundesluftfahrtamt] or the Consumer Protection Agencies of the Federal States would be the main authorities that could ensure this.
Improve enforcement of passenger rights & extend passenger rights to other transport modes	Regulation 261/2004 requires States to create National Enforcement Bodies and to introduce sanctions. Regulation 1107/2006, on the rights of passengers with reduced mobility, imposes a similar requirement, as does Regulation 1371/2007 (which has not yet come into effect).  As for Regulation 261/2004 the competent enforcement body in Germany is the Federal Office of Civil Aviation.



Measures	Assessment
Improve protection of passengers with reduced mobility	<p>As noted above, Regulation 1107/2006 requires Member States to create an enforcement body and to introduce sanctions for non-compliance into national law.</p> <p>As for Regulation 261/2004 the competent enforcement body in Germany is the Federal Office of Civil Aviation. The relevant law is Article 1 of the EC Consumer Protection Enforcement Act [EG-Verbraucherschutzdurchsetzungsgesetz (VSchDG) vom 21.Dezember 2006].</p> <p>This relates to the air transport sector only; for other transport sectors, there is no European legislation which yet applies.</p> <p>Germany has however introduced legislation which protects passengers with reduced mobility, most notably the Equality Act for Disabled People [Gesetz zur Gleichstellung Behinderter Menschen] which came into force in 2002.</p>

3.3 Table 3.1 above identifies that the Member States have important obligations under Regulation 261/2004 and 1107/2006 and the primary responsibility for enforcing these Regulations. They will have similar responsibilities under Regulation 1371/2007, when it comes into effect, and would also have under the proposed Regulations on the rights and obligations of passengers in the maritime and international bus/coach transport sectors.

3.4 In order to assess the effectiveness of the measures taken by the German government we have analysed below:

- the specific measures Germany has taken to implement the EU measures discussed in Task 1.7;
- other policy measures Germany has taken relating to market opening; and
- whether these policy measures have had any impact on Germany.

*Specific measures taken by Germany to enforce EU legislation*

3.5 The following actions have been taken by Germany to enforce Reg. 261/2004 and 1107/2006.

3.6 The Federal Office of Civil Aviation has been designated by the Federal Ministry of Transport, Building and Urban Affairs as the National Enforcement Body for Regulations 261/2004 and 1107/2006. The role of the authority is defined in Article 1 of the EC Consumer Protection Enforcement Act of 21<sup>st</sup> December 2006. It investigates individual complaints and can impose fines in case of non-compliance with the legislation.

3.7 In order to allow the enforcement body to impose fines, §108 of the National Aviation Licensing Regulation [Luftverkehrs-Zulassungs-Ordnung (LuftVZO)] and §58 Abs.1 Nr.13 of the German Civil Aviation Act [Luftverkehrsgesetz] have been changed. As for the complaints received by the Office, 57% of them were related to annulations of flight, 31% were related to delays of more than two hours and 11% were related to overbooking.

- 3.8 The Federal State Aeronautical Authorities have been designated as the competent authority for regulation of airports. To date, no further enforcement bodies have been created, but may be as soon as a proposed act to compensate rail passengers for delays comes into place.

*Other policy measures undertaken by Germany relating to passenger rights*

- 3.9 The Customer Protection Act has been changed as a result of Directive 1008/2008, which came into force in November 2008. This requires airlines to display the final prices of flights, including all taxes and additional charges, in all advertising and throughout the reservation process.
- 3.10 Legislation is currently being considered which would force train operators to offer compensation of at least 25% when trains are delayed by more than 60 minutes and 50% when trains are delayed by more than two hours. This is likely to be introduced in mid-2009. Some of Germany's Federal States - which are responsible for tendering regional rail services - have introduced a customer compensation system within their area. Most Passenger Transport Associations also try to enforce tighter compensation arrangements within their areas. However, at the moment these tighter arrangements are only set through bilateral agreements between the Associations and train operating companies, most often as part of the franchise/concession agreement.
- 3.11 In 2002 the Equality Act for Disabled People [Gesetz zur Gleichstellung Behinderter Menschen] came into force, securing a significant improvement in barrier-free access to all public facilities including transport. The Act requires all public buildings, road space and transport facilities to secure barrier-free access in accordance with the applicable national statutory provisions (which allow for certain transition periods). Its implementation is straightforward in modes such as bus transport: to date about 98% of urban fleets have low floors. By contrast, the reconstruction of railway stations takes longer and the law allows for a transition period. The Act has been criticised by various stakeholders because it re-regulates the funding regime, most notably funds previously regulated by the Local Authority Traffic Financing Act [Gemeindeverkehrsfinanzierungsgesetz]. However, the Act goes far beyond requirements of Regulation 1107/2006.

*Impact of policy measures in Germany*

- 3.12 Consumer protection agencies have indicated dissatisfaction with both the extent to which airlines have complied with Regulation 261/2004 and the effectiveness of the enforcement body. The Association of Transport Users [Verkehrsclub Deutschland] and the Aviation Agency state that some airlines tend to refuse compensation payments by simply informing passengers their case would not fall under the legislation. Although, according to the Regulation, the burden of proof is with the airline, passengers have to be persistent to get their rights. Other airlines have been found not to state passengers' rights correctly in their terms and conditions. The most notable deficiency may be the fact that most passengers are neither aware of their rights nor know of the responsible authority to complain to.
- 3.13 Consumer protection agencies such as the 'Verbraucherschutzzentrale' or the Association of Transport Users [Verkehrsclub Deutschland] have stated that airlines do not respond appropriately to complaints. The Federal Office of Civil Aviation [Bundesluftfahrtamt] is the competent national enforcement body, but several stakeholders have complained that there is no sufficient watchdog and/or

arbitration board structure in place to secure enforcement of passenger rights. The burden for passengers wishing to complain appears to be high, because of a lack of information and the absence of any arbitration process.

- 3.14 A study undertaken by Steer Davies Gleave in 2008 investigated the extent to which airlines have adapted their Conditions of Carriage to be consistent with Regulations 261/2004 and 1107/2006. The study analysed the Conditions of various carriers registered in Germany. Of the seven German carriers reviewed:
- three of the carriers' Conditions had extensive/severe non-compliance with Regulation 261/2004, although overall for Germany compliance was in line with the European average; and
  - the level of compliance with Regulation 1107/2006 was also similar to the European average.
- 3.15 Since 2005 punctuality at German airports has slightly decreased from an average of 80.1% to 79.1% in 2008, with the congested airports of Berlin and Dusseldorf performing slightly below that average (79.0% and 78.2% respectively) and the heavily congested airport of Frankfurt performing significantly below that value at 74.1%. In the same period of time (2005-2008) the proportion of delays induced by airlines stayed relatively stable at 50%. This indicates that as yet there is no evidence for Germany that airlines have improved their reliability/punctuality performance as a result of CTP policy.
- 3.16 New passenger rights introduced in rail apply for both, regional as well as long distance rail. As regional rail is regulated on the federal state level there is no common approach how to address enforcement of customer rights. Most notably there is no non-departmental public body which takes the role of an official watchdog and is accepted by all included stakeholders. It must be noted, though that relatively strong passenger rights at the local level are better than in most other EU Member States.

### **Conclusions**

#### *The overall impact of the policy*

- 3.17 In Germany most of the objectives of the policy that have been set out as a European Common Policy have either been achieved, or significant progress has been made. However, some deficiencies have been identified:
- The objective of an improvement of passenger protection in case of denied boarding, delays or cancellations has partly been achieved; however according to consumer protection agencies [Verbraucherschutzzentralen] and the Association of Transport Users [Verkehrsclub Deutschland] some airlines still do not comply with the legislation while the regulator is not enforcing operators resolutely enough.
  - Consumer protection agencies also consider that there is no sufficient watchdog and/or arbitration board structure in place to secure enforcement of customer rights. There is a designated authority but there is no non-departmental public body which takes the role of an official watchdog; these deficiencies apply for both aviation and public transport sectors.

- Most achievements have been made in improving passenger rights in the aviation sector while other sectors such as rail are lagging behind. This may create inter-modal discrimination and applies particularly for the German domestic transport market where rail and aviation have a similar market share on many Origin-Destination pairs.

3.18 The objective of improved protection of passengers with reduced mobility has been achieved.

*Contemporary developments - Lessons learnt and going forward*

3.19 New legislation on improved passenger rights for train services is underway and most likely to be introduced by mid-2009.

3.20 For Germany the biggest challenges are to secure sufficient and effective enforcement bodies, and to make it easier for passengers to obtain their rights. This could be taken as an opportunity to

- improve customer rights in transport sectors other than air; and
- to set up a nationwide or sector-specific alternative dispute resolution process.

## 4 Environmental sustainability

- 4.1 In what follows, we describe the actions taken by Germany with respect to a selection of transport externalities: air quality; the protection of the maritime environment; noise; and greenhouse gas emissions.

### *Qualitative analysis*

- 4.2 The qualitative analysis is undertaken through an assessment of the progress towards the measures discussed for environmental sustainability. The following sections present a deeper discussion of the assessment summarized in Table 4.1.

**TABLE 4.1 ASSESSMENT OF MEASURES FOR ENVIRONMENTAL SUSTAINABILITY**

Measure	Assessment
Euro emission standards	<p>This action was to be undertaken by the Commission and there were no specific obligations for the States.</p> <p>However, it must be noted that in Germany the setting of EU standards has had a significant impact on fleet composition over time. In addition, EU standards have been used as a basis for calculation of vehicle taxation and for the identification of the features of Low Emission Zones.</p>
Air quality directive	<p>Framework Directive 96/62/EC and limit values given in the subsequent Directives 1999/30/EC, 2002/3/EC and 2004/107/EC have been transposed into national legislation.</p> <p>Though some improvements have occurred in the status of air quality of German cities, limit values are still repeatedly exceeded.</p>
Ensuring that pricing and taxation mechanisms better reflect vehicles environmental and health damages	<p>At present there is no common EU environmental framework for road vehicles registration and/or annual circulation taxation and a revision of the Eurovignette Directive to allow charging of Heavy Good Vehicles (HGV) for the environmental externalities produced is under discussion.</p> <p>However Germany has undertaken significant actions in both fields by taxing vehicles according to their emissions and by introducing a distance-based toll for HGVs above 12 tonnes permissible total weight and vehicle combinations on Autobahns. The charging scheme differentiates tolls according to emissions classes.</p>
Promote the use of cleaner vehicles in urban public transport	<p>Germany took part in several EU initiatives mentioned in the task 1.9 report (eg. CUTE and CIVITAS). In addition, there are several national programmes to promote zero emission and biofuel technologies used in urban transport.</p>

Measure	Assessment
Sulphur content of marine fuel	<p>The Baltic and North Seas are currently designated as SO<sub>x</sub> Emission Control Areas (SECAs) where fuel burned by ships must contain less than 1.5% sulphur, which will be 1% from 1 January 2010 and 0.1% from 1 January 2015. EU rules require Member States to ensure that marine fuels with more than 1.5% sulphur by mass can not be used in SECAs that are within their territorial seas.</p> <p>Germany is monitoring the contents of SO<sub>x</sub> in the Baltic Sea.</p>
Community support for noise charges and introduction of noise-related operating restrictions at Community airports	<p>Directive 2002/30/EC aimed at harmonising the conditions of restricted access to airports due to noise-emissions of aircraft. At present no German airport applies this.</p> <p>However, some actions to reduce noise at airports, such as noise-dependent charges, have been taken in Germany.</p>
Reduction at source and other actions to reduce noise in the rail sector	<p>There were no specific obligations for the States with respect to these actions.</p> <p>However, Germany, has been very active in introducing measures to reduce noise in the rail sector. Germany is particularly affected by rail noise, as most of the long-distance rail-freight movements from Dutch and German North Sea Ports go through the Rhine valley and other major north-south axis, and most of the existing freight lines pass through densely populated areas. The proportion of the population exposed to noise induced by rail freight with levels above 55 db(A) (the limit value beyond which noise is assumed to have a significant impact on health) is estimated to be 20% (Source: Deutsches Institut für Luft und Raumfahrttechnik Köln)</p>

4.3 In order to assess the effectiveness of the measures taken by Germany, we have analysed below:

- the specific measures Germany has taken to implement the EU measures discussed for environmental sustainability;
- other policy measures Germany has taken relating to environmental sustainability;
- whether these policy measures have had any impact in Germany.

*The following specific measures have been taken by Germany to implement/enforce EU legislation*

4.4 Only a few of the European measures to tackle environmental externalities from transport activities required actions to be taken at national level. Nonetheless, Germany has taken several actions to reduce environmental externalities from transport.

4.5 The EU Air Quality Directive 96/62/EC, Directive 1999/30/EC on limit values for certain air pollutants and Directive 2002/3/EC on ground-level ozone have been transposed into German national law through two Federal Emission Control

Ordinances [Bundes-Immissionsschutzverordnung; BImSchV] implementing the Federal Emission Control Act [Bundes-Immissionsschutzgesetz; BImSchG] and through other Acts<sup>5</sup>.

4.6 Germany has fully complied with the requirements of Directive 2002/49/EC, which committed Member States to<sup>6</sup>:

- Map the spatial distribution and the effect of noise in ‘noise-maps’;
- Publish noise maps and inform the public on the effects of noise;
- Create action plans which describe how to tackle noise at the identified hot-spots.

4.7 However, as the Directive is implemented at the municipal level, the level of progress heavily depends on the effort spent by local administrations.

4.8 Germany is also monitoring the contents of SO<sub>x</sub> in the Baltic Sea. A 2007 report from HELCOM, the government body of the “Convention on the Protection of the Marine Environment of the Baltic Sea Area”, showed that in 2006, 367 ships were inspected in Germany to control compliance with SO<sub>x</sub> requirements and 9 cases of non-compliance were detected. The report also investigated if there were any difficulties with the availability of fuel with a maximum content of sulphur of 1.5% in the ports of the Baltic Sea Area and Germany did not claim any difficulty with the availability of such kind of fuels.

*Other policy measures undertaken by Germany relating to environmental sustainability*

4.9 Germany has undertaken significant actions in order to tax and charge vehicles according to their emissions.

4.10 To date, motor vehicle registration tax for light vehicles and two-wheelers is based on cubic capacity, EURO emission class and existence of carbon-particulate filters. However, as from July 2009, light vehicle registration tax will be based exclusively on cubic capacity and CO<sub>2</sub> emission, to promote the purchase of vehicles with better performance on GHG emissions. The new tax will be €2 and €9.50 per year for each 100ccm of cubic capacity for petrol and diesel cars with particulate filters, respectively. The tax for diesel cars without a particulate filter will be €10.70 per 100 ccm. For both vehicle types, no CO<sub>2</sub> tax will be imposed up to the level of 120g CO<sub>2</sub> per kilometre, but a unitary tax of €2 will be levied on each gram of CO<sub>2</sub>/km above this threshold. The threshold will reduce to 110 g CO<sub>2</sub>/km in 2012 and to 95 g CO<sub>2</sub>/km in 2014. The tax will initially apply to new vehicles only but it will apply to older ones from 2013 onwards. HGV registration taxation is based on gross vehicle weight and, for vehicles > 3.5 tonnes, on emission and noise-emission class.

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<sup>5</sup> The relevant legislation is the 22nd Federal Emission Control Ordinance (Ordinance on Air Pollutant Limit Values) or 22nd BImSchV; and the 33rd Federal Emission Control Ordinance (Ordinance to Reduce Summer Smog, Acidification and Eutrophication) or 33rd BImSchV. They are accompanied by the Technical Guideline for Clean Air [TA Luft] of 2002 and the LAI Report of September 2004 on how to assess pollutants for which no emission limit values have been set (<http://www.lanuv.nrw.de/gesundheit/pdf/LAI2004.pdf>)

<sup>6</sup> Relevant legislation is §§ 47a-f of BImSchG

- 4.11 The German Government also increased fuel taxes in 1999 (at present, in Germany the fuel tax is €0.65/litre for petrol and €0.47/litre for diesel).
- 4.12 Road user charging has also been introduced in Germany to tackle environmental externalities from HGV vehicles. The Act on the Levying of Distance-Related Charges for the Use of Federal Motorways by Heavy Goods Vehicles, which took effect on 12 April 2002, provided the legal basis for establishing and collecting tolls. In particular, it determined the type of vehicles that had to pay tolls on motorways, and the features of toll collection, monitoring and enforcement. It also authorized the German government to set the amount of the toll by regulation.
- 4.13 On this legal basis, in January 2005 a distance-based toll came into force for all (both German and foreign ones) heavy commercial vehicles and vehicle combinations with a permissible total weight of 12 tons or more, which travel on German motorways and some selected national roads.
- 4.14 The amount paid varies according to the number of axles and the emission class of the vehicle, as well as the distance travelled. To encourage the use of cleaner vehicles, tolls have progressively been modified to reflect changes in fleet composition and to promote further ones. For instance, in October 2006, once EURO-4 emission standards became mandatory, the toll charged on EURO-4 vehicles moved from the cheapest category (category A) to the second one (category B). In January 2009, to promote fleet renewal, the difference of the charge imposed between the lowest and highest vehicle category was raised from 50% to 100%, and an additional toll category was introduced to reflect whether vehicles had adequate particulate filters.
- 4.15 A consortium (Toll Collect) specifically created for this purpose, led by DaimlerChrysler and Deutsche Telekom, is responsible for toll collection and receives approximately €0.65 billion p.a. from the German Government to run and operate the system. This sum covers also the funding of research activities to develop innovative collection solutions that could be exported elsewhere. The total amount of revenues collected increased from €2.86 billion in 2005 to €3.46 billion in 2008. No figures are available on the cost of operating the system.
- 4.16 To date, no distance or cordon based road user charge for light vehicles has been introduced in Germany, nor at national or urban level.
- 4.17 In March 2007 new legislation came into force which allows cities to ban the circulation of vehicles not complying with certain emission standards and/or not having appropriate carbon-particulate filters. Following this legislation, about 40 German cities have either introduced Low Emission Zones [Umweltzone] or have announced to do so in the near future.
- 4.18 In addition, several national programmes to promote zero emission and biofuel technologies used in public transport vehicles have been launched, most notably the National Innovation Programme for Hydrogen and Fuel Cell Technology, set up by the Federal Ministry of Transport, Building and Urban Affairs.
- 4.19 With respect to noise externalities, some actions have been taken in Germany to tackle both aviation and rail ones.
- 4.20 Most airports in Germany apply a noise-differentiated charging system, a general ban on night flights (23hrs to 06hrs) or impose surcharges up to 200% for planes landing/starting within these hours.



- 4.21 Germany is particularly affected by noise from the rail sector: it is crossed by several rail freight routes and the country is relatively densely populated with many rail lines following the main axes of urbanised areas. To tackle this problem, the Federal Ministry of Transport, Building and Urban Affairs launched a Noise Reduction Programme with an annual budget of €51 million over the 1999-2006 period and €100 million since 2007. €10 million per annum is dedicated to a special Innovation Programme to stimulate the development of LL-brake blocks in order to make retrofitting freight wagons significantly cheaper. Furthermore, there are several initiatives at the national level to introduce a noise-differentiated access charge for freight wagons.

*Impact of the policy measures within Germany*

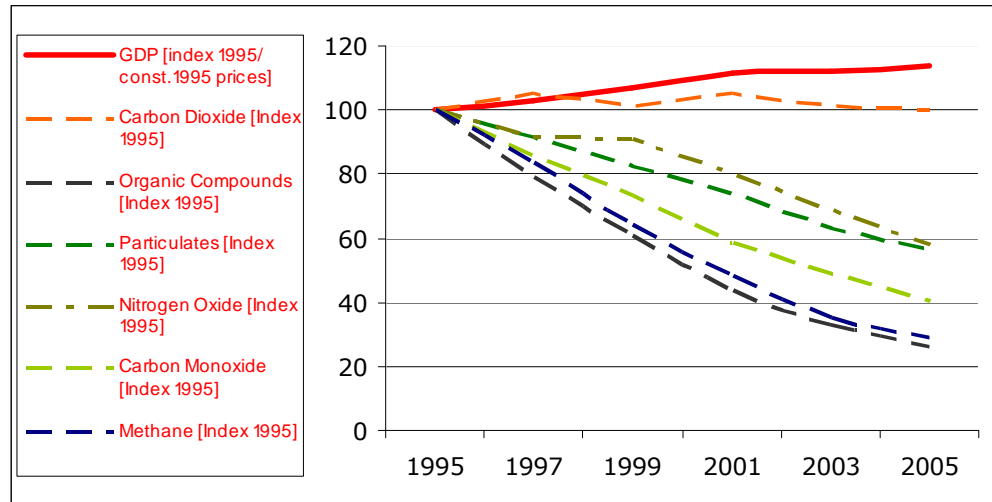
- 4.22 The setting of standards has had an impact on fleet composition over time. As of January 2008 32.1% of all registered road vehicles complied with the EURO 4 standard. This has helped improve air quality. National data show that, between 1995 and 2005, emissions of nitrogen oxide have been reduced by 42%, particulates by 43%, methane by 71% and organic compounds by 74% (see the quantitative analysis below). It is important to note that this was achieved although overall traffic volumes have increased.
- 4.23 However, critical situations can still be found at local level, though significant progress has been made. Data provided by the Federal Environmental Agency [Umweltbundesamt] show that in the period between 2002 and 2007 the number of days where limit values for PM10 and NO2 have been exceeded has been reduced both in medium sized cities and in the large metropolitan regions. However, the limit values are still repeatedly exceeded, which indicates that there is need for further action.
- 4.24 There is certainly scope for action on the promotion of the use of cleaner vehicles in urban public transport. Although significant progress has been made with regard to PM filters in urban bus fleets - in 2005 around 11,000 urban buses (43% of total fleet size) had been equipped with carbon-particulate filters - it is claimed that there are insufficient incentives for local transport operators to invest substantially in zero emission fleets.
- 4.25 The taxation instruments used by the German government to discourage the use of motorized vehicles, together with the increase in fuel prices in recent years, have contributed to the decoupling of road passenger demand growth from economic growth.
- 4.26 The decoupling of car transport demand from GDP growth contributed to the stabilisation of GHG transport emissions in Germany over the past years, though also in this country the growth experienced in the aviation sector is challenging the reduction of this type of emissions.
- 4.27 Noise-related airport charges introduced by several German airports have induced carriers with higher noise emissions - particularly cargo - to move their bases towards airports less sensitive towards noise, such as Hahn or Leipzig.

*Quantitative analysis*

- 4.28 The following sections present some quantitative data used to evaluate the effectiveness of the measures described above.

*Trends in transport externalities*

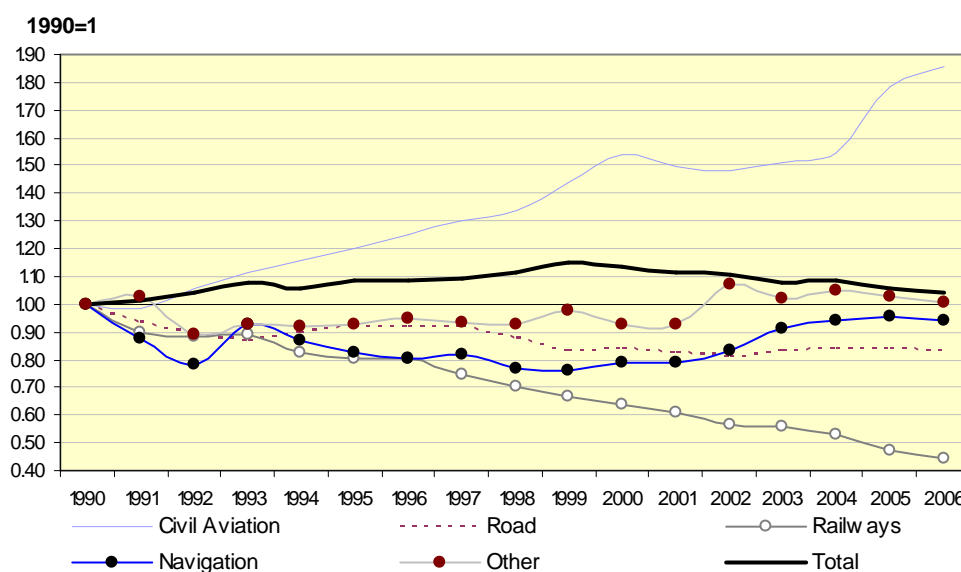
- 4.29 The following figure shows how GDP growth has been decoupled from the growth of transport emissions in Germany.
- 4.30 This is mainly due to improvements in the composition of the German vehicle fleet (in 2008 about one third of all registered road vehicles complied with EURO 4 standard), and to the stabilisation of passenger car demand, which in 2007 was only 7% higher than in 1995.

**FIGURE 4.1 GDP PERFORMANCE AGAINST TRANSPORT EMISSIONS**

Source: Verkehr in Zahlen 2007/2008. Note: all values have been indexed to 1995, GDP is shown at constant 1995 prices.

- 4.31 In 2006, transport GHG emissions accounted for 192.2 million tonnes of CO2 equivalents in Germany, corresponding to about 18% of total GHG emissions in this country. The road sector accounted for 78% of them, followed by aviation (14%) and navigation (5%), whilst the railway sector gave a negligible contribution of 0.7%.
- 4.32 The slight increase registered by total GHG emissions since the 1990s (4% over the 1990-2006 period) is mainly due to the increase of emissions from the aviation sector, which increased by 86% over the same period, while all the other sectors either decreased their emissions or stabilized them. As for polluting emissions discussed above, the containment of the growth of road transport demand contributed to the good performance registered in GHG emissions from transport.

FIGURE 4.2 TREND OF GHG EMISSIONS FROM TRANSPORT IN GERMANY



Source: EU energy and transport in figures 2009

### Conclusions

#### *The overall impact of the policy*

- 4.33 The efforts of the EU to improve vehicle technology and fuel quality have had an impact on Germany's policy towards these objectives.
- 4.34 Euro emissions standards have been implemented and are used in taxation and as the basis for charges applied on motorways.
- 4.35 Germany has also introduced a distance-based toll for HGVs above 12 tons permissible total weight, with charges differentiated by emissions classes.
- 4.36 Overall, significant progress has been made against the objective to reduce polluting and GHG emissions at national level. Some progress has also been made against the objective to reduce pollutants from transport at the local level; however, limit values are still exceeded frequently, particularly in larger metropolitan areas or cities.
- 4.37 Significant progress has also been made against the objective to reduce noise - particularly from the rail sector. There is no evidence though to what extent these measures have indeed had an impact on the noise emissions.

#### *Contemporary developments*

- 4.38 Along with particulates, GHG emissions are increasingly targeted as the main externality to be addressed by the German transport environmental policy. For this reason, the registration tax of light vehicles will soon be based exclusively on cubic capacity and CO<sub>2</sub> emissions.
- 4.39 Since January 2008, German cities have also been allowed to introduce Low Emission Zones.

- 4.40 Following the achievements of the HGV toll system proposals to introduce a nationwide road user charge system for light vehicles with coverage of the entire road network (including metropolitan conurbations) have been advanced. However, these proposals face strong public opposition. The toll system has also been criticised for the fact that fees to the operator equate to around 20% of revenue.
- 4.41 Recently, the Commission has also opened a procedure of infringement against Germany (and other 9 Member States) for not taking the actions needed (i.e. adoption of air quality plans) to apply for an extension of the timescales set for the more stringent EU air quality limits identified by Directive 2008/50/EC.

*Lessons learnt and going forward*

- 4.42 It must be noticed that some of the progress made towards the transport environmental sustainability objectives can not be unequivocally allocated to the policy put in place either at the EU or at national level. The results obtained depend on a wider range of variables. For example, it is difficult to separate the effects obtained on car transport demand of the actions taken by the German Government to discourage road usage from those of the increase in fuel prices registered from 2002.
- 4.43 Both in passenger and freight transport, environmentally friendly modes such as public transport and rail freight transport, have already been able to register significant growth. In future, efficiency gains from market opening, together with the introduction or refining of pricing instruments and the provision of the financial support to the realisation of related transport infrastructures, could further stimulate demand for environmentally friendly modes and reverse the declining trend registered in some of them, such as inland waterways.

## 5 Conclusions

- 5.1 The legislative and regulatory framework of the EU in the areas analysed has been transposed into national law and, in some circumstances Germany has also taken measures that go beyond the provisions of the CTP. Some examples of such measures include: liberalisation of the regional rail passenger market, the introduction of a distance-based toll for HGVs, and the protection of passengers with reduced mobility.
- 5.2 These actions contribute to the fulfilment of CTP objectives in the field of market opening, environmental sustainability and protection of passenger rights.
- 5.3 These measures have also led to knock-on improvements in these sectors. For instance, the opening of the aviation market improved air connectivity between Germany and the rest of Europe. In the rail sector, the liberalisation process contributed to the increase in rail freight transport volumes and to the enhancement of the quality of regional rail passenger services.
- 5.4 These outcomes, along with other measures introduced to tackle transport externalities (e.g. Low Emission Zones, investments to abate rail noise, etc.), have contributed significantly to the improvement of the sustainability of the transport sector in Germany in recent years.
- 5.5 However, it must be pointed out that the presence of market barriers and market imperfections still hinder real competition in some sectors. In addition, the benefits of liberalisation have associated negative effects: the increase registered in air passenger demand resulted in an increase in GHG emissions produced by this mode, which is responsible for the slight increase in GHG emissions from transport experienced by Germany in the last decade.
- 5.6 Enforcement of the measures is a problem preventing the full realisation of all benefits, especially where Germany has been active in introducing measures that go beyond the requirements of EU regulations, such as in the field of protection of passengers' rights. For instance, although the protection of air passengers has been improved following EU legislative provisions, the Association of Transport Users claims that some airlines fail to comply with the legislation, and that these failings are not dealt with effectively by the regulator.
- 5.7 The EU CTP has had a significant role in delivering the positive results discussed above. It has helped to accelerate market opening, which would not have happened otherwise, and it has stimulated a new awareness of environmental problems.
- 5.8 In the past, public opposition to the liberalisation of transport markets was particularly strong in Germany. For instance people feared that liberalisation would lead to a deterioration of working conditions. However, the positive effects obtained through the EU-driven opening of the aviation market have helped gain support for this process and has helped the progress towards liberalization in the other sectors.

- 5.9 In past decades Germany has been a leader in developing environmental policies. In its control of GHG growth, it continues to lead the way in Europe. However, it is now the EU that is ensuring progress at national level thanks to the tighter limits introduced for the concentration of air polluting emissions. The implementation of low emission zones, for example, would have been an unlikely scenario in Germany without the EU environmental policy.
- 5.10 Beyond those areas which have been covered in this report the EU CTP has also helped improve the connectivity of Germany with new Member States by upgrading east-west transport corridors into Germany, most notably the construction of the A20 motorway and several rail-links in former East Germany which received significant financial support through ERDF funds. These developments helped address the challenges raised by the EU enlargement policy, challenges which also influenced the priorities set in the Federal Transport Network Plan [Bundesverkehrswegeplan] of 1992 and 2003.