

The Impacts of the 2004 Enlargement  
*in the Area of Transport*

STATUS Final version

COMMISSIONED BY DG TREN, European Commission

AUTHORS RebelGroup Advisory ([www.rebelgroup.nl](http://www.rebelgroup.nl))  
COWI A/S ([www.cowi.com](http://www.cowi.com))  
Transport & Mobility Leuven ([www.tmleuven.be](http://www.tmleuven.be))

DATE September 2007

**Report information:**

*Title* : The impacts of the 2004 enlargement in the area of transport

*Commissioned by* : European Commission, DG Energy and Transport

*Project team* : Jan-Coen van Elburg, Emil Evenhuis, Sigrid Schenk, Huub Vrenken (RebelGroup Advisory, Rotterdam, The Netherlands), Bruno van Zeebroeck (Transport and Mobility Leuven (TML), Leuven, Belgium), Jesper Mertner, Erling Hvid (COWI A/S, Lyngby, Denmark)

*Status* : Final report

*Date of publication* : September 2007

## Contents

<b>Executive summary</b>	<b>3</b>
<b>1. Introduction</b>	<b>11</b>
1.1. The study	11
1.2. Methodology	11
1.3. Report structure	13
<b>2. The enlargement process and the Acquis in Transport</b>	<b>15</b>
2.1. The enlargement process	15
2.2. The acquis in the area of transport	17
<b>3. The developments in transport in context</b>	<b>25</b>
<b>4. Impacts on the transport sector</b>	<b>35</b>
4.1. Road transport	35
4.2. Railway transport	49
4.3. Other modes of transport	58
4.3.1. Maritime transport	58
4.3.2. Aviation	63
4.3.3. Inland waterway transport	68
<b>5. Conclusions and recommendations</b>	<b>71</b>
5.1. Conclusions	71
5.2. Recommendations	74
<b>Glossary</b>	<b>77</b>
<b>Sources</b>	<b>79</b>
<b>Annex 1: Case studies</b>	
<b>Annex 2: Reports of workshops and seminar</b>	



## Executive summary

The European Commission, Directorate General for Energy and Transport, has commissioned a study on the impacts of the 2004 enlargement in the area of transport. The study is to provide an insight into the effects of the enlargement, and should present lessons learned for the benefit of future enlargements, as well as recommendations for further integration of the NMS into the EU. The emphasis of the study is on effects that are related to changes in the regulatory environment in which the transport sector now functions, brought about by the transposition and implementation of the transport chapter of the *acquis communautaire*<sup>1</sup>. Much of this 'Transport Acquis' is aimed at opening up national markets, thus creating an internal transport market for the whole of the EU. EU legislation and policy also exist on safety, security and the environment. The study covers all main modes of transport, both freight and passenger transport.

To identify main trends and focal points of the study, background documents and statistics were collected and interviews were held with parties who were intimately involved with the enlargement. On the basis of this information, 14 subjects were identified for in-depth study as case studies. These case studies, in combination with data, interviews and two workshops on more general topics, gave a good insight into the basic 'mechanisms' that have been important during the enlargement, and the basic developments that have taken place. To validate our conclusions, we held a seminar at the end of the study in which the main results of the study were presented and preliminary recommendations were stated for discussion.

The enlargement of the EU by ten New Member States was not limited to just one point in time on 1 May 2004. Rather, it was a process that can be traced back to the early 1990s for most of the acceded countries. During that period, an enlargement strategy was developed to prepare for accession into the EU, consisting of, among other things, several Technical and Financial Assistance programmes.

Transport legislation accounts for approximately ten per cent of the total community *acquis* and is therefore a 'voluminous chapter' within the total community *acquis*. The Transport Acquis further evolved during the enlargement process: At the end of 1999, the overall Transport Acquis counted 2896 pages; by the end of 2004 this was 7780 pages. This means that during the enlargement process, the NMS had to transpose<sup>2</sup> and implement<sup>3</sup> 'old' legislation, but also had to keep up with newly accepted legislation. Hence conforming to the Transport Acquis can be compared to 'catching a

---

<sup>1</sup> The total body of EU legislation.

<sup>2</sup> Adopt EU legislation into national legislation.

<sup>3</sup> Administrative and business efforts for ensuring that the adopted EU legislation is applied and enforced in practice.

moving train'. The final progress reports, published just before the accession, show a situation in which, on the one hand, it is acknowledged that substantial efforts have been made, whereas, on the other hand, substantial work would be needed to reach full alignment. Taking into account the growth of the acquis and the remaining agenda for complete alignment, it is remarkable that Transitional Periods<sup>4</sup> granted on 1 May 2004 were limited in number and scope.<sup>5</sup>

Transposition and implementation of the Transport Acquis took place within a context of rapid economic changes which also affected the transport sector. Free trade between the NMS and EU-15, and the gradual integration of the economies of NMS and EU-15, contributed to economic growth and a rise in the trade flows. This in turn has caused a strong growth in transport volumes. Road transport has been the main beneficiary so far. The increase in wealth has led to an expansion of car ownership, and has reduced the use of public transport by train, tram, metro and bus. Freight transport by road has also grown significantly, because it is best able to accommodate the changing nature of transport flows: Distribution in denser networks of smaller volumes of goods for which timing is a crucial factor. Rail freight transport, which historically had a big share in many CEECs, has had to cope with operational problems and a decline in transport of bulk goods. Furthermore, the NMS faced and still face an enormous challenge expanding, rehabilitating and upgrading their infrastructure.

The main conclusions of this study regarding the effects of enlargement are listed below.

- Traffic and transport between EU-15 and NMS has grown significantly. Between the time when accession negotiations started and 2005, many trade flows doubled. At some borders, the volume of traffic increased by 400 per cent in ten years. This increase is illustrative of the pace of integration of the NMS into the EU. There is no longer the need to speak of 'old' and 'new' Member States.
- The legal framework of the NMS is to a large extent aligned with the latest EU legislation. This is a great accomplishment, also taking into account that the volume of the Transport Acquis more than doubled between 1999 and the time of accession on 1 May 2004.
- Road transport in NMS, particularly international road transport, is developing from a limited state-owned, and subsequently extremely fragmented, industry into a professional logistics industry. NMS drivers have obtained very high shares of the

---

<sup>4</sup> Period after accession in which a Member State (usually the newly acceded Member State) does not have to comply with a designated part of the acquis.

<sup>5</sup> A total of 21 Transitional Periods were granted in the area of transport, on the following subjects: Cabotage, tachograph, admission to the occupation, weights and dimensions, roadworthiness, speed limitation devices, vehicle taxes, development of the Community railways and noisy aircraft.

transport in compared with EU-15, very often as low-cost subcontractors hired by EU-15 forwarders or as employees of EU-15 hauliers. Meanwhile, larger NMS companies have emerged and developed capabilities to also offer logistics services other than transport. This is partly due to the influence of demanding industries such as the automotive sector, which have now established themselves in the NMS.

- The increase of road traffic emissions has come to a halt, despite the vast increase in traffic volumes. This is due to the adoption of vehicle emission standards. Only emissions of carbon dioxide are still increasing, because of their direct relation with fuel consumption. Also road safety has improved despite increasing traffic (the gap between EU-15 and NMS fatality rates and practices is still wide, however).
- The standards of the maritime fleet of the EU have improved through stricter and better coordinated enforcement of international safety rules. Flag State Control and Port State Control are being enforced in all EU countries and best practices are being exchanged. This has contributed to the upgrading of particularly the fleets of Malta and Cyprus, both principal registers for maritime shipping. Skilled workers of NMS have contributed to the competitive strength of the EU in maritime transport and inland waterway navigation.
- Accession has been a catalyst of the liberalisation of air transport in NMS, which has been an important facilitating factor in the explosive growth in air transport that has taken place: Air transport more than doubled in the period between 2000 and 2005. Low-cost carriers have entered the market and have taken market shares up to 50 per cent, increasing travel options for NMS citizens at affordable prices. Aviation safety has remained at a high level in the EU after accession and noise levels have dropped, because NMS operators have replaced their old, outdated aircraft with new, modern planes. The renewal was initiated by EU standards as well as trans European co-operation of carriers.
- Notwithstanding substantial dynamics and reorganisations in the road, aviation and particularly railway transport sectors, no major social conflicts have arisen. Economic growth and the related growth in employment opportunities have taken the edge off certain social threats.
- Already in the pre-accession years, workers in NMS were employed in the EU-15 in the road, maritime and inland waterway transport industries, which suffered from (threats of) labour shortages. These flows are gradually disappearing, since opportunities and working conditions in the NMS have considerably improved.
- NMS that followed a strategy of early market opening were in general more successful in attracting foreign investments in transport services and industry compared to candidate countries that showed more reluctance. With the exception

of Poland the size of the domestic market has usually not been the trigger for an investment decision. This was rather the availability of skilled workers, the absence of bureaucracy, in combination with opening of the markets.

Although the 2004 enlargement can be considered a success in the area of transport and has contributed in no small way to the integration of the NMS into the EU-15, some qualifications must also be made:

- The enlargement process has focused too much on legislation, while ignoring the establishment of effective institutional and organisational structures that ensure its application and enforcement. This process was exacerbated through the substantial growth of the Transport Acquis during the negotiation process and the pressure to report on completed transposition of the acquis that would result in a limited need of Transitional Periods.
- NMS felt an intense political pressure to transpose rules although they did not always know their consequences. Too little time was devoted to the development of national transport strategies to which legislation could be aligned. Also, communication between public bodies and the transport sector was lacking. Finally, enforcement is not up to standard for parts of the acquis. This means that the level playing field – the main aim of European legislation – is no more than a paper reality for certain issues.
- Skills to manage the process of change have been insufficient in many ministries in the NMS, mainly as a result of budget constraints. This is still often felt in e.g. the management of large investment funds for transport. Ministries often appear to have difficulties preserving a high-quality workforce. Capacity building and retention of skilled staff need continuous attention.
- The railway transport sector is in an extremely vulnerable position. This is despite a starting position in the NMS with a high modal share of rail freight and passenger transport. The equity capital of railway companies in NMS is only approximately one seventh of what it was ten years ago, while debt is now almost five times as high. Investments in infrastructure and rolling stock are lagging. This is because of, for instance, a lack of public funding of infrastructure and rolling stock, and deficient funding of Public Service Obligations. Disproportionate charging for infrastructure now deters the development of freight transport by rail in NMS. Nearly all NMS have among the highest charges for freight users in Europe. Many NMS lack long-term, strategic plans on the future of their railways. White paper policies have raised expectations for railways, but the application of the acquis in railways has not yet been fully completed in many NMS, and will in itself be insufficient to revitalise the railway industry in NMS.



- The development of intermodal transport has been disappointing. Expectations of actors and public officials in NMS and EU were high, but many intermodal transport services, particularly rolling highways, collapsed. Apparently, these services relied heavily on former institutional barriers in road transport (i.e. quota systems), and now cannot compete with road transport because of high railway access charges.
- The developments in inland waterway transport have been unsatisfactory. With the enlargement, the waterway system of the Rhine, Danube and Main-Danube Canal – linking the North Sea to the Black Sea – is now almost entirely in the EU. All vessels in the EU now have unrestricted access to the Danube. Yet inland waterway transport continues to play only a very marginal role in the NMS.
- The rapid growth in road transport and traffic causes fast-growing carbon dioxide emissions, as well as increased congestion and pressures on ecology and cultural heritage.
- The Transitional Periods granted were limited in scope and number, although progress reports published shortly before accession reveal several shortcomings in alignment. Transitional Periods seem to have been the result of a negotiation process rather than an assessment of the situation in real life. As Transition Periods needed to be included in Accession Treaties at least one year before accession, they could not reflect the situation in real life. After accession, not much has been done on follow up of both Transitional Periods and other ‘outstanding issues’ which were not yet fully in line with the *acquis*.

Based on these findings, we have formulated the following lessons learned and recommendations for future enlargement and further integration into the EU:

- Pressure to focus on quick transposition of legislation should be decreased, and more time should be devoted to its application. The Commission and existing Member States can facilitate this through a comprehensive ‘transport sector review’:
  - This review should be carried out annually as from the moment that the negotiations start and make visible the steps to be taken for implementation of the *acquis communautaire* within the acceding country. The review should be performed by an independent organisation and present the progress in all areas of transport. The review should then be validated through peer reviews by Commission and Member State staff. The review should also comprise extensive contacts between administrations of Member States and the sector to communicate and discuss impacts of enlargement on market actors.
  - Transitional Periods should be allowed for, under the condition that they are based on the transport sector review. The Accession Treaty should allow for an addendum that lists implementation constraints identified shortly (e.g. 6 months) before accession. These implementation constraints cannot be a reason for postponement of accession but can be a reason for temporary exclusion from

certain markets/benefits (as was done in the case of BG with the aviation market).

- The granting of TPs should be conditional on an action plan in which steps for preparing for the new conditions are defined. The TPs should be subject to monitoring and support by the EC and individual Member States also after the accession. The TPs should always be temporary, no 'Europe à la Carte'.
  - The transport sector review should also be the basis for determining the necessity of additional Technical Assistance in certain areas. Technical Assistance should be strongly encouraged if the necessity has been shown through the review.
- The effectiveness of Technical Assistance can be increased provided that
  - Accession states show commitment for project implementation, have an open mind towards weak aspects of current organisations and secure a consistent environment of the project (political, staff) and focus on concrete results.
  - Program and project management should be less bureaucratic, more flexible and result driven. Involvement of government staff (Commission, Member States) that possess know how of the content is crucial. In tender processes quality of staff and their commitment should prevail over the prices of services as a criterion for selection.
- The Commission and existing Member States should better assist candidate countries in developing a transport strategy and policy of their own. This will make them better capable of prioritising their investments and the allocation of political and administrative attention.
- Normally, the benefits for existing Member States of the accession of new Member States (resulting from increasing traffic flows and new business opportunities) will outweigh some disruptive effects due to increased competition. Hence existing Member States should only institute Transitional Periods when they have legitimate worries about the capacity of accession states to transpose and implement relevant parts of the acquis, and if this poses a serious threat to a level playing field and fair competition within the internal market.
- The Commission should put more effort in consolidating and simplifying the Transport Acquis in order for it to become a more coherent body of legislation that is easier to transpose into national standards. NMS should in general approach the EU legislative framework more as an opportunity rather than a threat or a 'stand alone' legislative task.
- The Commission should systematically evaluate the effectiveness of granted Technical Assistance in order to learn about the most effective and efficient means

to deliver support. Now evaluation only takes place at a project level and only focuses on the financial/management part of the project.

- A comprehensive action package is required to solve the financial and organisational problems in the railway and local public transport sectors. Implementation of the community acquis is insufficient to ensure fulfilment of White Paper ambitions in the area of railways. Targeted research and impact assessments should make visible how the investment climate for railways can be improved and how contracting of public services can be improved in order to tailor more sustainable public transport systems.
- A level playing field in transport has not been established yet. NMS railway operators suffer from disproportionate infrastructure charges. Public passenger transport is not sufficiently compensated for Public Service Obligations. Road freight operators, particularly in the Old Member States, may face unpredictable and multi-technology systems of road charges. Whether or not aviation services are charged for emissions and/or noise depends on initiatives of national governments or even individual airports. Member States and the Commission should focus more on uniform application of existing standards and cooperation in checking and enforcement through Twinning and active membership in organisations, such as TISPOL (European Traffic Police Network) and ECR (Euro-Contrôle Route). The practice of maritime shipping shows that a continuous effort to cooperate in tasks such as Flag State Control and Port State Control is effective in increasing the safety of the EU fleet and EU seas. Introduction of similar common enforcement regimes in other transport modes will improve safety, security and social and contribute to a level playing field.
- The design and promotion of the use of intelligent transport solutions, which use resources productively, need more effort. Transport users and operators in nearly all Member States, old as well as new, are increasingly facing capacity constraints in infrastructure.



## 1. Introduction

### 1.1. The study

On 1 May 2004, ten New Member States joined the European Union. These New Member States (NMS) have since been integrated into the internal transport market, with some exceptions due to Transitional Periods. Three years later, the effects of the enlargement in the transport sector are becoming increasingly visible. To assess the nature and extent of the changes brought about by the enlargement, the European Commission, Directorate General for Energy and Transport, has commissioned a study on the impacts of the 2004 enlargement in the area of transport. The study is to provide an insight into the effects of the enlargement, and should present lessons learned for the benefit of future enlargements, as well as recommendations for further integration of the NMS into the EU.

The emphasis of this study is on effects that are related to changes in the regulatory environment in which the transport sector now functions, brought about by the transposition and implementation of the transport chapter of the *acquis communautaire*<sup>6</sup>. Much of this 'Transport Acquis' is aimed at opening up national markets, thus creating an internal transport market for the whole of the EU. EU legislation and policy also exist on safety, security and the environment. The study covers all main modes of transport, both freight and passenger transport.

### 1.2. Methodology

This study was conducted only three years after the date of enlargement. No comprehensive research was available yet, and reliable and useful data was scarce. Because of practical constraints of time and budget, and considering the wide scope of subjects, the numerous transport market segments and the large geographical area, we decided to use a pragmatic approach.

The first phase of the study, covering two months, was used for identifying the main trends and exploring the most interesting developments since the enlargement. We collected documents and statistics and conducted interviews with parties who had been closely involved in the enlargement process. This resulted in an understanding of the socio-economic context and the general trends in the transport sector before and after the accession. It also pinpointed the most relevant questions concerning the changes of the legal and institutional environment, particularly of NMS.

---

<sup>6</sup> The total body of EU legislation.

Two regional workshops were held in the NMS. In these workshops, stakeholders from national ministries, the transport sectors and from universities exchanged their visions of the impacts of the accession on the transport sector and on society, and of the lessons learned from it. One workshop in Budapest was about “strategic opportunities and threats that enlargement has created for road transport and combined transport in Hungary”, and one in Riga was about “railway transport in the Baltic States”.<sup>7</sup>

At the end of phase I, we were able to define 14 case studies on subjects which needed further elaboration. The case study titles are presented in Table 1.

**Table 1 The list of case study titles**

<ol style="list-style-type: none"> <li>1. Railway sector reform in the Baltic States</li> <li>2. Development of road safety, in particular in Hungary and Latvia</li> <li>3. Development of the market for air carriers (Hungary, Latvia)</li> <li>4. Strategic position of road transport and combined transport in Hungary</li> <li>5. Alteration of the public transport system in Hungary</li> <li>6. Implementation of Port State Control in Poland</li> <li>7. Integration of Polish road transport into EU market</li> <li>8. Railway sector reform in Poland</li> <li>9. Implementation of a road inspectorate in Poland</li> <li>10. Development of the logistics industry in the Czech Republic</li> <li>11. Implementation of Flag State Control in Malta and Cyprus</li> <li>12. Freight transport in the Danube Corridor</li> <li>13. The development of railway finances and financing</li> <li>14. Reduction of road transport emission levels due to fleet renewal</li> </ol>
---

The case studies were conducted in the second phase of the study, over a period of three months. Some of the case studies focus on issues of implementation during the process of enlargement, while others aim at a preliminary assessment of market developments. Still others focus on the impacts on European policy issues (e.g. railway finances, emissions, road safety). Thus, the case studies cover a wide spectrum of topics.

The case study reports are included in a separate Annex to this report.

A methodology based on case studies is not well suited for a detailed picture of the effects of the enlargement specified for each of the NMS. Nevertheless, case studies, in combination with data, interviews and workshops on more general topics, give a good insight into the basic ‘mechanisms’ that have been important during the enlargement, and the basic developments that have taken place. Hence the

<sup>7</sup> The minutes of these workshops can be found as an Annex to the report.

methodology we followed allows for qualitative conclusions on the general effects of the enlargement in the NMS as a whole.

The study was concluded by a seminar under the title “Transport and Enlargement”. The seminar was held in Brussels on 27 June 2007, with representatives of the European Commission, national Ministries of Transport, Permanent Representatives of the different Member States and various stakeholder organisations. We presented the main results of the study and stated recommendations for discussion.<sup>8</sup> The discussions at the seminar and remarks in the follow-up to it were used to validate the conclusions and recommendations of the study.

### **1.3. Report structure**

In Chapter 2, the enlargement process and the developments in the Transport Acquis are outlined. In Chapter 3, the general developments with regard to transport are described. In Chapter 4, the specific impacts of enlargement on the different modes of transport – road, rail, maritime transport, aviation and inland waterway transport – are discussed. In Chapter 5, conclusions are drawn and recommendations presented.

Examples illustrating the text are presented in separate, blue boxes in the text.

---

<sup>8</sup> The minutes of the seminar can be found as an Annex to the report.





## 2. The enlargement process and the Acquis in Transport

The enlargement of the EU by ten New Member States was not limited to just one point in time on 1 May 2004. Rather, it was a process that can be traced back to the early 1990s for most of the acceded countries. During that period, an enlargement strategy was developed to prepare for accession into the EU while, throughout the accession process, the acquis in the area of transport further evolved.

### 2.1. The enlargement process

The formal start of the enlargement process for the NMS, apart from Malta and Cyprus, was the Europe Agreement signed in Brussels in December 1991.

The Agreement put into motion the adjustment of national laws, regulations and policies with the primary objective of future accession to the Union. For instance, customs duties and tariff rates were reduced both on the part of the EU and of the candidate countries. On the topics where the EU has issued binding legal standards, these prevail over national law. Consequently, both the Union and the candidate states strive to align national law with Union law regarding these topics, and abandon any conflicting legislation. The specific topics are covered in the chapters of the *acquis communautaire*.

In the Essen Summit of 1994, the Council formulated specific tasks of the Commission during the accession process. The main strategy with respect to the accession was based on facilitation, which meant that the candidate countries should be assisted in their preparations for integration to the internal market, and to meet the demands of the *acquis*.

Accession negotiations started in 1998 (Cyprus, Czech Republic, Estonia, Hungary, Poland, Slovenia) and 2000 (Bulgaria, Latvia, Lithuania, Malta, Romania and Slovakia). The timeframe for the negotiations was set in a roadmap, decided upon by the European Council in Nice in December 2000.

Several programmes for Technical and Financial support were available to assist candidate countries with their preparation for accession and integration into the EU:

1. TAIEX (Technical Assistance Information Exchange Office). TAIEX is aimed at channelling requests for assistance in the fields of approximation, implementation and enforcement of Community legislation. It does so by, e.g. providing information, translation of legislation, training programmes, workshops, etc.

2. PHARE<sup>9</sup>: Consisting of institution building (aimed at strengthening economic, social, regulatory and administrative capacities) and investments related to adoption of the acquis (in e.g. regulatory framework or social and economic cohesion). PHARE also encompasses the Twinning Programme, which helps the candidate countries to acquire the administrative capacities needed to implement the acquis to the same standards as Member States, through secondment of experts from Member States.
3. ISPA: Instrument for Structural Policies for Pre-accession. ISPA provides financial support in the areas of transport and environment in view of the enlargement.
4. SAPARD: Special Accession Programme for Agriculture and Rural Development. SAPARD aims to support the preparation of acceding countries to participate in the Common Agricultural Policy and the Single Market.

Apart from the above EU instruments for assistance, individual Member States also had programmes to provide Technical Assistance on specific transport issues.

A chronological overview of events related to the fifth enlargement is presented in Table 2 below.

**Table 2 Chronological overview of accession process**

Date	Event
1989	Start of the PHARE programme for Hungary and Poland
1991	Europe Agreement: Association Agreement, start of the enlargement process <sup>10</sup>
1993	Copenhagen Summit: EU Member States establish "Copenhagen Criteria" <sup>11</sup>
1994	Essen Summit: Development of pre-accession strategy, with the primary goals of approximation of the acquis
1994	PHARE available for all candidate countries
1994 – 1996	Applications for EU membership: The candidate countries formally express their wish to become members of the EU <sup>12</sup>
1995	Commission White Paper on the integration of the CEECs into the internal market of the EU

<sup>9</sup> Cyprus and Malta do not qualify for assistance under the PHARE programme. They received pre-accession assistance under a specific Council regulation for 2000-2004.

<sup>10</sup> Cyprus already had an Association Agreement since 1972, and Malta since 1971.

<sup>11</sup> The Copenhagen criteria are as follows:

1. "stability of institutions guaranteeing democracy, the rule of law, human rights and the respect for and protection of minorities"
2. "the existence of a functioning market economy"
3. "the capacity to cope with competitive pressure and market forces within the Union"
4. "ability to take on the obligations of membership, including adherence to the aims of political, economic and monetary union"
5. the Union's readiness to accept the candidate country.

<sup>12</sup> Cyprus and Malta applied as early as 1990.

1995	TAIEX programme launched
1997	Agenda 2000: Outlining the difficulties in transposing the acquis and support measures, together with a new financial framework for the EU with a view to enlargement. In the context of Agenda 2000, opinions were drafted on the qualification for accession negotiations for CEEC countries <sup>13</sup>
1998	Formal start of negotiations (Cyprus, Czech Republic, Estonia, Hungary, Poland, Slovenia)
1998	First series of Accession Partnerships with CEECs: Arrangements between EU and applicant countries. Within these arrangements it was agreed that the EU would mobilise all available resources to prepare candidate countries for membership, and candidate countries make precise commitments relating to approximation of the acquis
1998	The PHARE programme was reoriented to support institution building (including the Twinning Programme) and investments (co-financing) in view of accession
2000	Formal start of negotiations (Bulgaria, Latvia, Lithuania, Malta, Romania and Slovakia)
2000	Nice Summit: European Council decided on roadmap for negotiations, including timeframe
2000	ISPA programme starts
2003	Accession Treaty: Agreement on accession and issues to be dealt with during the interim period
2004	Accession of ten new member states – structural funds (European Regional Development Fund, Cohesion Fund, European Social Fund) become available for NMS
2004	Transition facility until 2006, to provide for post-accession assistance in order to strengthen the New Member States' administrative capacity to implement Community legislation and to encourage exchange of best practice among peers.
2007	Launch of Instrument for Pre-accession Assistance (IPA) in which past programmes and instruments are combined

## 2.2. The acquis in the area of transport

### **Not only the Transport Acquis is relevant for the transport sector**

The Transport Acquis was a 'chapter to be concluded' in the enlargement process. It is important to be aware that other chapters of the acquis also may affect the transport sector, even directly. For example, the Environment Acquis sets environmental standards for vehicles and defines mandatory environmental impact assessments for

<sup>13</sup> Opinions Malta and Cyprus were published in 1999 and 2003 respectively.

infrastructure investments. State aid to transport falls under the Competition Acquis. The immense set of rules for type approvals in the automotive industry is part of the Internal Market Acquis. And within DG Energy and Transport, the dossier 'bio fuels' is primarily addressed by the Commissioner for Energy.

Likewise, the Transport Acquis contains legislation that one would rather expect in other chapters. For example, certain social standards, such as driving times and resting periods, which one might suppose to be part of the Social Acquis, are part of the Transport Acquis.

However, within the total context of enlargement, the distinction between transport and all other areas of community competencies is unimportant. The entire acquis had to be implemented, independent of the source of the legislative initiative (the relevant 'Directorate General'). In this study the effects of all relevant parts of the acquis are treated, but the main focus will be on the effects of the approximation and implementation of the Transport Acquis.

### **The acquis has grown considerably during the enlargement process**

Until the end of the 1980s, the total Transport Acquis was limited to a few specific areas, such as state aid, driving and resting times and common rules for international transport. Pushed by the realisation of the internal market in 1992, a rapid development took place in the early 1990s. Much legislation was adopted to ensure a level playing field and market opening, and the acquis started to grow into a substantial set of legislation with major impact on the national transport sector. Later, an increasing number of rules was added on quality elements such as professional competencies and passenger rights.

Transport legislation now accounts for approximately ten per cent of the total community acquis and is therefore a 'voluminous chapter' within the total community acquis.<sup>14</sup> At the end of 1999, the overall Transport Acquis counted 2896 pages. By the end of 2004, this was more than doubled to 7780 pages (compare energy: 1902 pages).<sup>15</sup>

The increase of the body of legislation in the Transport Acquis between the end of 1999 and 2004 shows that, during negotiations, the NMS were confronted with the obligation to transpose more than twice as much legislation as at the time when negotiations started. This does not mean that the administrative impact of the rules was doubled as well; part of the new legislation revises existing rules. Moreover, NMS could participate in discussions about the new legislation as 'observers'. Still, it can be

<sup>14</sup> Johannes Baur (2004): "Europäische Verkehrspolitik: Zu Lande, zu Wasser und in der Luft." In OstEuropa 5-6/2004

<sup>15</sup> Répertoire of the acquis communautaire, energy and transport, 31 December 2004, DGTREN

concluded that, for the countries that acceded in 2004, conforming to the Transport Acquis can be compared to 'catching a moving train'.

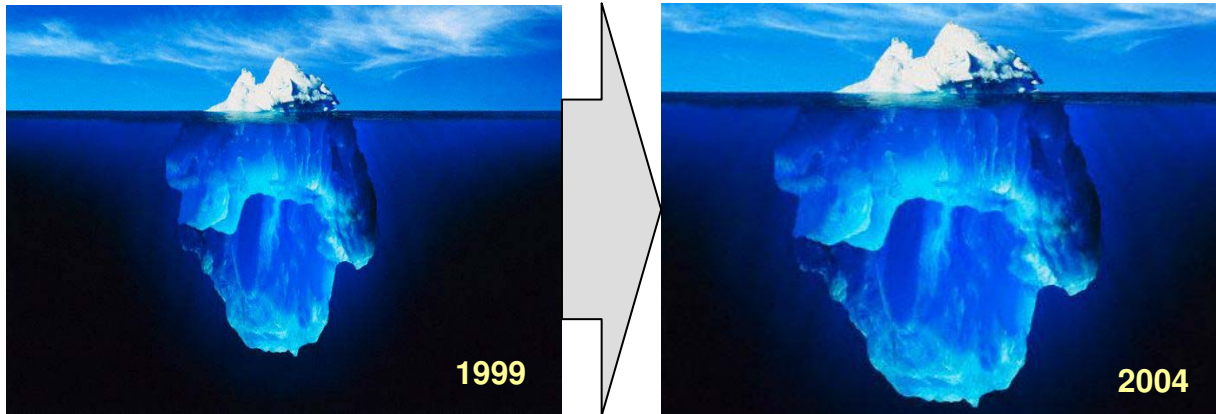
#### **After transposition of the acquis follows implementation**

The transposition of legislation is only a first step. The implementation that follows is the process of administrative and business efforts for ensuring that the newly established rules will be applied in practice. It refers among others to the creation of institutions to execute and enforce legislation, training officials and personnel, putting in place new administrative systems, etc.

#### **Drivers' hours rules in road freight transport**

An illustration of the implementation challenge is the application in real life of the rules for driving hours and rest periods. Operators have a huge operational incentive to maximise the number of productive hours on the roads. Drivers' hours rules are supposed to draw the line. However, the drivers' hours rules in place at the time of the enlargement process were famous for their complexity and different application throughout Europe. The introduction of the digital tachograph has made actual enforcement even more demanding in the short term, because the application of enforcement equipment does not run smoothly yet. Even inspectorates in EU-15 currently have difficulties executing the checks within a reasonable timeframe with advanced equipment. The enforcement demands will gradually be raised (now one per cent, but increasing to three per cent). For NMS, just building up their inspectorates with limited means, these are additional demands that are difficult to meet. Transposition of the EU rules is thus only a small, first step, compared to the task of ensuring that enforcement also takes place in practice.

Transposition of the acquis is therefore only the tip of the iceberg. Given the fact that the iceberg itself has grown substantially in the period of accession, this means that the demands on the acceding countries with regard to implementation have grown too, although not exactly to the same extent (because part of the new standards replace and/or improve older ones).



**Figure 1 The growth of the acquis as a growing iceberg**

Literature so far has not provided the ultimate success formula to deal with this iceberg of transposition and implementation needs. Most of the New Member States adopted a kind of 'national programme for the adoption of the acquis', usually coordinated by the Ministry of Foreign Affairs. Within these programmes the attention for transport would depend on the relative importance of the sector in relation to the other policy areas. With the exception of Cyprus and Malta, railways were always considered to be an important area by the NMS, if only as the top five employer. For Central European land-locked states such as Slovakia, the Czech Republic and Hungary, road transport was relatively important, whereas the Baltic states and Poland naturally focused more on maritime transport.

The following success formulas have been mentioned as determining factors in the process of transposition and implementation of legislation:<sup>16</sup>

- Political stability, stable government structure (competencies, relation between central and decentralised authorities) and consensus democracy;
- Financial resources (equipment, communication tools);
- Language skills and willingness to develop and change;
- Quality of Technical Assistance and its sustainability ;
- Government as attractive employer/career prospects for young professionals (no brain-drain to commercial sector);
- Strong and professional bureaucracies (sustainable also if the political landscape changes);
- Organised special-interest groups in transport and their involvement (road haulage associations, employee organisations etc.);
- Strong bilateral ties (Estonia-Finland, Italy-Slovenia);

<sup>16</sup> See amongst others: Van Elburg, Implementation of transport legislation in Central and Eastern Europe, essay for European Transport Conference 2001; Peter Hille and Christoph Knill (2006): 'The implementation of the acquis communautaire in EU candidate countries 1999-2003, SAGE publications.

- Allowing for self-criticism: rather acknowledge shortcomings and work on these than act as if everything is under control.

There is no single accession state in which all these conditions were met throughout the entire accession process (maybe Slovenia should be mentioned for coming close).

The success of the process of transposition and implementation not only depended on the above mentioned conditions, but also crucially on deliberate strategies the accession states chose to follow. In general, candidate countries that followed a deliberate and constructive strategy, and made thoughtful choices concerning the opening of markets did much better than states that hardly thought about these issues. With the exception of Poland the domestic markets of the NMS are relatively small. The attractiveness of the NMS therefore depended on other elements.

NMS that showed more reluctance in market opening because they feared the competition of EU-15 companies were less successful in attracting investments, both from the part of transport operators (logistic centres, road transport operators etc) but also from the side of industries that require high quality logistic services (automotive, retail). Ensuring the right business environment –market opening, skilled workers, minimised bureaucracy – has been particularly important for NMS as they lacked the financial incentives (tax benefits, infrastructure investments) that are at the disposal of the richer EU-15 Member States.

Commission progress and monitoring reports, as well as dedicated Technical Assistance projects reveal that all accession states had their ups and downs.

#### **Success factors for Technical Assistance**

Although in this study Technical Assistance has not been evaluated systematically, information and opinions were collected about past TA activities in the New Member States. From this information and opinions the following success factors have been distilled:

- Commitment from the recipient (in many cases national administrations), and awareness of the importance of adequate implementation and enforcement.
- Openness about weak aspects of the existing administration/organisation; the experience is that Technical Assistance can hardly be effective if the recipient only wishes to show that it can fulfil the membership demands.
- Consistency in the political environment (many project failures resulted from changes in the political landscape).
- Quality of staff and sustainability of the organisations targeted for Technical Assistance.
- Quality of the advisor; some TA tenders tended to focus on tariffs and budget rather than on quality of the advisor and the ability to establish sustainable relations.

- Close cooperation with different administrations involved in the sector.
- Establishing concrete results instead of learning about abstract principles.
- Close interaction between the recipient and the provider of the assistance, together with a long-term relationship. Hence, especially Twinning projects were generally highly valued: The matching of sister organisations responsible for the same things seems to have worked quite well and has initiated commitment to realise things at a concrete level.

Factors that have had a negative influence on success are:

- NMS that suffered from frequent changes in national political situations often also faced constant changes in entire administrative organisations at the cost of quality, professionalism and sustainability.
- Better career opportunities in the private sector caused a high turnover of staff. This made it more difficult for Technical Assistance projects to create a lasting impact.
- Some TA programmes – certainly in the beginning – were organised in too much of a top down way, applying a 'one size fits all' approach. National and local needs were then insufficiently considered.
- Besides the different programmes of Technical and Financial Assistance from the EU, also funds and programmes from e.g. EIB and the World Bank were available. The diversity of programmes/financing tools with different rules and objectives complicated the work in organisations with limited capacity.
- The availability of strong external advisors has, in periods, been limited and selections in tenders may not always have attracted the best from the market.
- Project management skills on the part of the recipient have been a bottleneck, especially with regard to Financial Assistance projects. Administrations in NMS were not always capable of delivering the money in the right place at the right time.
- Projects were pushed forward although it was clear that there was no commitment at the part of the recipient.

Progress and monitoring reports issued prior to enlargement give a general picture of the process of transposition and implementation, starting from the moment when negotiations started (1998). The 2003 final progress reports show a situation in which, on the one hand, it is acknowledged that substantial efforts have been made, whereas, on the other hand, substantial work would be needed to reach full alignment. All accession states still have an agenda of work to be completed by 2003. In some areas, the reports even mention "serious concerns and primary legislation that is still to be adopted".<sup>17</sup>

#### **Progress reports: The examples of Poland and the Czech Republic**

<sup>17</sup> The history of enlargement in terms of progress and monitoring reports is published on <http://ec.europa.eu/enlargement/archives>



As for Poland, the conclusion is that in road transport, “framework legislation is in place and in line with the acquis”. Reference is made to the fact that “implementing measures in the road transport area are proceeding as foreseen and that necessary administrative structures are in place and functioning well”. For railway, legislation is in place, whereas some secondary legislation still needs to be adopted. For inland waterways, legislative alignment has been completed with few exceptions, whereas for air transport, some alignment of framework legislation is still necessary, particularly regarding licensing, ground handling and slot allocation.

The 2003 report on the Czech Republic speaks of ‘serious delays’ in the implementation of the road transport acquis. Especially the administrative capacity for checking and enforcement is lacking. The report speaks of ‘inadequate enforcement’ that is a ‘serious concern’. In railways, the separation of accounts between infrastructure rail freight and passenger transport is still to be completed. Also transposition of inland waterway legislation was not completed in 2003. Contrary to inland transport, air and maritime transport structures are in place and function ‘satisfactorily’.

Taking into account the growth of the acquis prior to accession and the remaining agenda for alignment presented in the 2003 progress reports, it is remarkable that Transitional Periods granted on 1 May 2004 were limited in number and scope. Transitional Periods were agreed to in the following areas:

**Table 3 Transitional Periods**

Mode	Subject	Country
Road	Cabotage	Czech Republic, Estonia, Latvia, Lithuania, Slovakia, Hungary, Poland
	Tachograph	Cyprus, Latvia, Lithuania
	Admission to the occupation	Latvia, Lithuania
	Weights and dimensions	Hungary, Poland
	Roadworthiness	Malta
	Speed limitation devices	Malta
	Vehicle taxes	Malta
Rail	Development Community railways	Poland, Hungary
Air	Noisy aircraft	Lithuania, Hungary

Areas that were considered to be ‘problematic’ in 2003 for certain countries do not return in the above list. A possible explanation is that all constraints were solved in the final year prior to accession. Certainly it is true for some accession states and policy areas that in the final year, the last necessary steps were taken. However, within the framework of accession negotiations, there was political pressure to limit the number of

Transitional Periods granted. As a consequence some 'outstanding issues' of the 2003 progress reports were not made subjects of Transitional Period, although full alignment had not yet been achieved.

A further explanation of the above can be found in the decision making process around Transitional Periods. They have been proposed by either side (usually the candidate country) during the accession negotiations, often already in the first phases of the negotiation process. Transition Periods agreed upon are included in the Accession Treaty, signed at least a year prior to accession (in the case of BG and RO nearly 2 years). The ratification process that follows does not allow for any changes. Hence there is no possibility to include changes, when last minute deficiencies become apparent.

For the Transitional Periods granted, one would have expected a certain follow-up monitoring process after 1 May 2004 in order to observe alignment at a later stage (usually two-three years) as agreed. However, the success of enlargement seems to have had the effect that both Transitional Periods, as well as the follow-up of other 'outstanding issues', got little priority in the years following.

### 3. The developments in transport in context

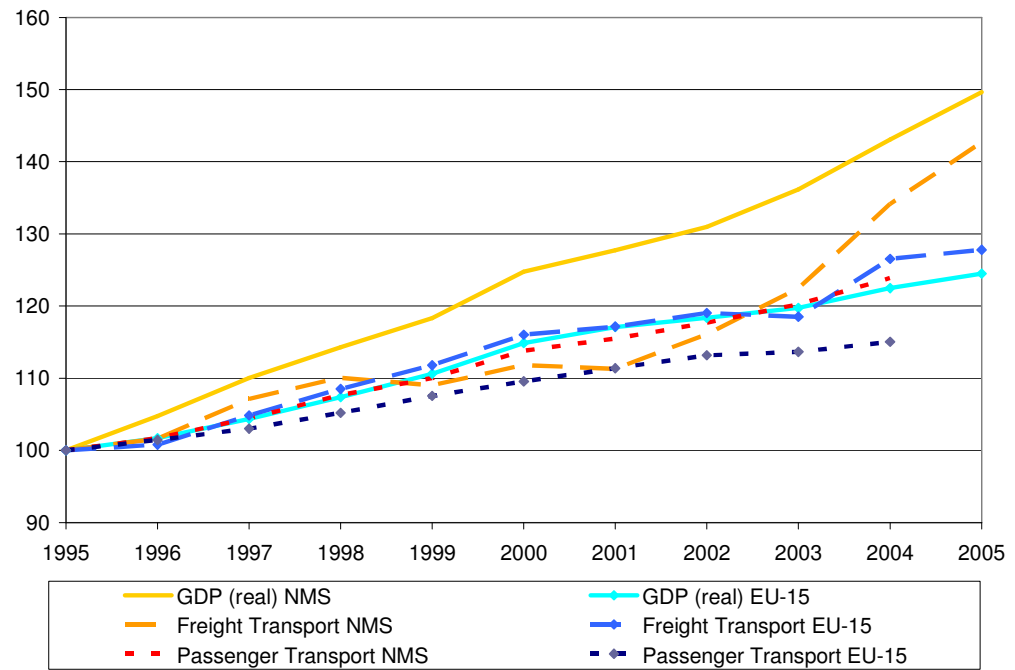
Apart from Cyprus, Malta and Slovenia, all Member States which entered in 2004 were part of COMECON until 1991. The economies of these countries entered a period of transition in the 1990s, in which production and consumption levels declined, industries rationalised and investment levels were very low and uncertain. Recovery started, stepwise, by the mid-1990s. Sustained by low labour costs combined with a highly qualified labour force, the potential of economic development in these countries was enormous. The prospect of accession to the European Union definitely contributed to this.

In this chapter, the general trends in the transport sector in the last decade are discussed in relation to broader economic developments. Some of these economic developments are also related to the enlargement of the EU, but are not a direct consequence of the transposition and implementation of the *acquis* in the area of transport.

#### **Increased transport demand through economic growth**

Transport of both goods and passengers has grown significantly since the mid-1990s in the New Member States. This growth in transport is connected to the economic growth that has taken place in the NMS.

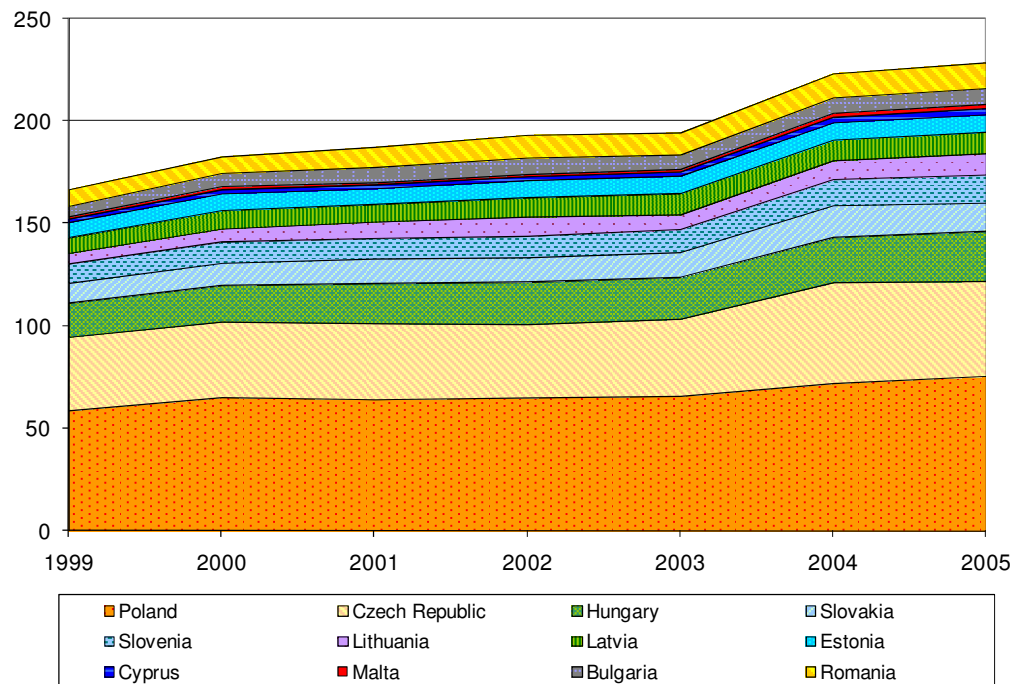
In the figure below, the growth of both passenger and freight surface transport in the NMS and EU-15 is shown, together with the growth of real GDP. Since 1995, growth of both transport and GDP has been much more extensive in the NMS than in the EU-15. Especially in the years since 2003, an acceleration is visible in the growth of freight transport in the NMS.



**Figure 2 Development of real GDP and development of freight and passenger transport in NMS and EU-15 (1995=100)**  
(Source: Eurostat)

### Trade flows have increased between the NMS and EU-15 and between the different NMS

Trade flows between the NMS and EU-15 – represented by export of NMS to EU-15 plus import by NMS from EU-15 in tonnes of goods – have increased by approximately one third between 1999 and 2005. As shown in Figure 3, in 2004, the year of accession, growth was higher than in other years.



**Figure 3 Development of trade flows (import + export) between EU-15 and NMS, in million tonnes**  
(Source: COMEXT, Eurostat)

The Europe agreements between the EU-15 and candidate countries, which came into force between 1994 and 1999, already established free trade between the EU-15 and the NMS. At the time of accession, remaining restrictions in a few sectors (e.g. foodstuffs, textiles and clothing) were removed. Also, accession removed the trade barriers that still existed between the different NMS. This resulted in a slight increase of trade between NMS in 2004.<sup>18</sup>

### The nature of trade between NMS and EU-15 is changing

Enlargement has prompted industrial restructuring that has led to some shifting of economic activities from the Old Member States to the new. The production processes of many EU-15 firms were fragmented, relocating some parts to the New Member States either by setting up affiliates (offshoring) or by purchasing input from local suppliers (outsourcing). The low labour costs, together with the ample availability of skilled labour, the geographical proximity, the cultural and linguistic ties and the prospect of accession to the EU all made NMS particularly attractive.

New Member States have thus become assembling platforms using inputs imported from the EU-15 and exporting back final goods or input for further processing. This process is undergoing a progressive upgrading: Since the early 1990s, the share of

<sup>18</sup> European Commission, DG ECFIN (2006): *Enlargement two years after: an economic evaluation*. Brussels

primary goods in the trade flows has decreased, while the share of more sophisticated parts and components has increased. Especially the automotive sector and ICT industries have recently come up in the NMS.<sup>19</sup>

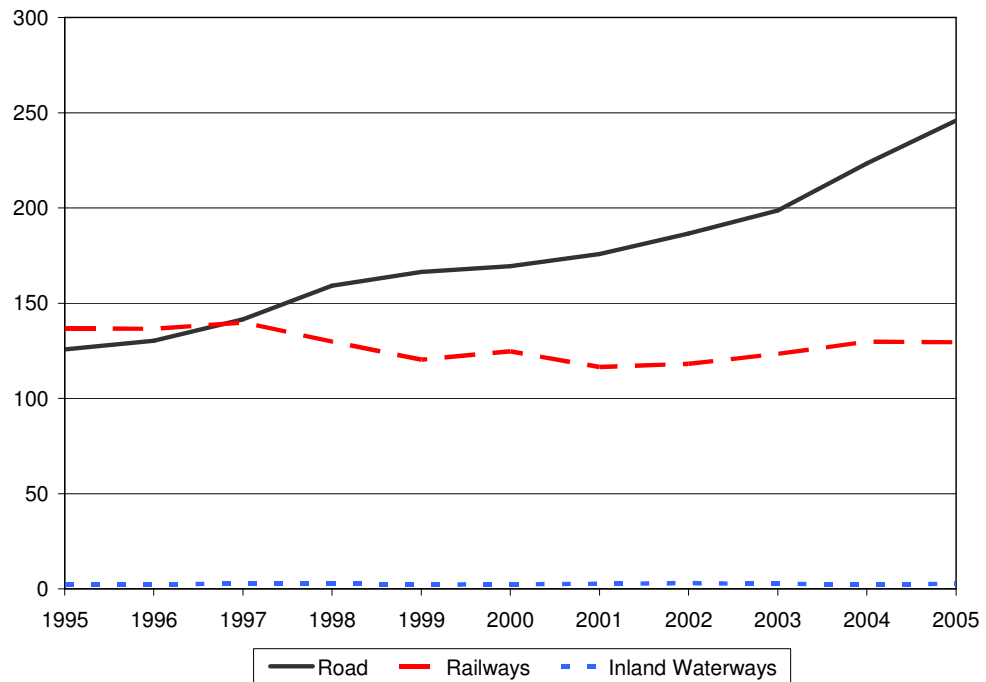
As a consequence, the nature of trade between NMS and EU-15 has changed. In the past, trade of NMS was based on export of low-skill, labour-intensive products and import of primary goods and sophisticated consumer goods. Now, intermediate goods and more advanced final goods represent the most important components of the trade flows between NMS and EU-15. As the NMS are slowly developing into attractive consumer markets, due to rapid economic growth, they increasingly serve as an outlet for final goods assembled in the production locations in these countries.

**Growth has been extensive, especially in road transport**

Road transport has been the main beneficiary of the growth in freight transport, as can be seen in the figure below. The growth in road transport is partly explained by the changing nature of transport and trade flows. Distribution of goods now takes place in more dense networks, which requires more sophisticated logistics services. Road transport is particularly suited to accommodate these needs. Meanwhile, transport of bulk goods such as steel, coal and ore has declined in the NMS, which has led to a decrease of especially railway transport. It should be noted, however, that besides road freight transport also maritime transport has grown significantly: In the period from 2000 to 2004, the growth of freight turnover in 13 NMS seaports was 25 per cent.

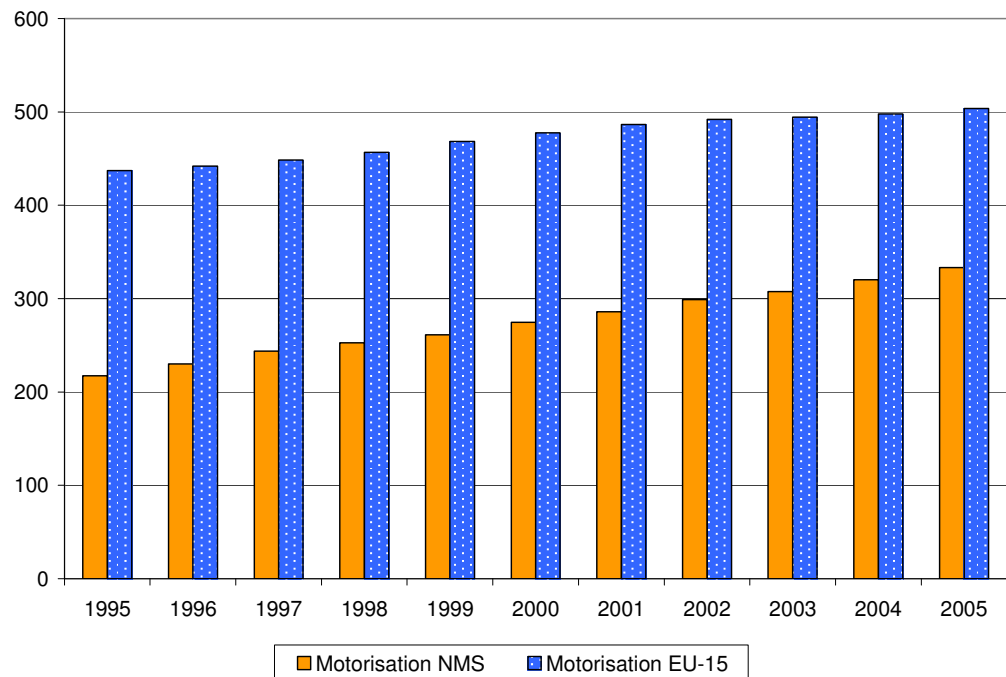
---

<sup>19</sup> European Commission, DG ECFIN (2006): *Enlargement, two years after: an economic evaluation*. Brussels



**Figure 4 Development of freight transport by road, railway and inland waterway transport in 1000 million tonne-kilometres (Source: Statistical Pocketbook Transport 2006)**

Also in passenger transport, growth in surface transport has been mainly due to growth in road transport. In terms of passenger kilometres, passenger transport by car has increased by 46 per cent in the NMS between 1995 and 2004, compared to 16 per cent in EU-15. In the same period, passenger transport by railway has decreased by 22 per cent, and passenger transport by local public transport has remained the same. Together with passenger transport by car, aviation has also grown explosively however, and has more than doubled in the NMS between 2000 and 2005. The growth of passenger transport by car, and the relative decline of other modes in surface transport, can be accounted for by the rise in car ownership in New Member States, as illustrated by Figure 5.

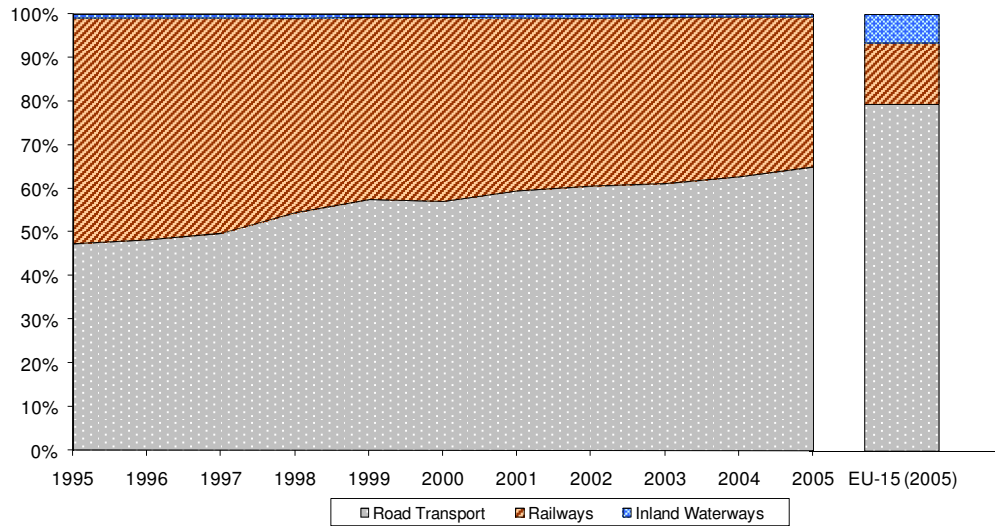


**Figure 5 Development in number of cars per 1000 inhabitants (motorisation) in NMS and EU-15**  
(Source: Eurostat and Statistical Pocket Book Transport 2006)

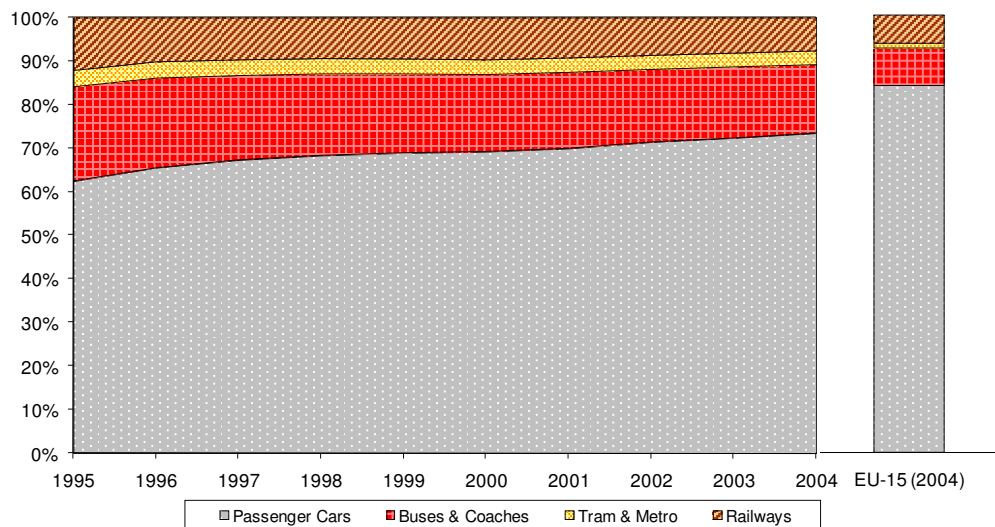
#### **Modal split of NMS is starting to look like modal split of EU-15**

As a result of the developments in transport as described above, the modal split in surface transport in NMS for both freight and passenger transport is increasingly beginning to look like the modal split in EU-15. The development in the modal split in NMS for freight and passenger surface transport, and the corresponding modal split for EU-15, are shown in Figure 6 and Figure 7 respectively.





**Figure 6** Development in modal split in surface freight transport in NMS (Source: Statistical Pocket Book Transport 2006)



**Figure 7** Development in modal split in passenger transport in NMS (Source: Statistical Pocket Book Transport 2006)

**Enormous investments in infrastructure ahead**

To accommodate the strong growth of transport in the NMS and the gradual shift towards road transport – both in passenger and freight transport – big investments in infrastructure lie ahead. To illustrate, the total length of the motorway network in the NMS is approximately 3,000 kilometres (given a surface area of 738,000 km<sup>2</sup>). If the

NMS were ever to maintain a similar network density, the network would have to be five times the present length; an additional approximately 12,000 kilometres network would be needed.<sup>20</sup>

Compared to the EU-15, however, the railway network of approximately 50,000 kilometres in the NMS is very dense (approximately 50 per cent more dense than in the EU-15).

Much of the road and railway infrastructure in the NMS needs rehabilitation and upgrading, also in view of EU requirements on weights and dimensions. Additionally, many ports and airports need to be improved and expanded. This will also require large sums of investments.

To give an idea of the magnitude of the investments needed, consider the projects designated as TEN-T priority axes, some of which are major links between Old and New Member States and between NMS themselves.

**Table 4 TEN-T priority axes in relation to NMS**

6. Railway axis Lyons–Trieste–Divaca/ Koper–Divaca–Ljubljana–Budapest–Ukrainian border
7. Motorway axis Igoumenitsa/Patras–Athens–Sofia–Budapest
17. Railway axis Paris–Strasbourg–Stuttgart–Vienna–Bratislava
18. Rhine/Meuse–Main–Danube inland waterway axis
21. Motorways of the sea
22. Railway axis Athens–Sofia–Budapest–Vienna–Prague– Nuremberg/Dresden
23. Railway axis Gdansk–Warsaw–Brno/Bratislava–Vienna
25. Motorway axis Gdansk–Brno/Bratislava–Vienna
27. ‘Rail Baltica’ axis Warsaw–Kaunas–Riga–Tallinn–Helsinki

With the projects in the above list, a total investment sum of approximately EUR 92 billion is involved in the period up to 2020. These TEN-T projects only reflect a portion of the total infrastructure needs, however.

### **Concluding...**

Free trade between the NMS and EU-15, and the gradual integration of the economies of NMS and EU-15, have contributed to economic growth and a rise in the trade flows. This in turn has caused a strong growth in transport volumes. Road transport has been the main beneficiary so far. The increase in wealth has led to an expansion of car

<sup>20</sup> The total motorway network in the EU-15 is approximately 55,000 kilometres, given a surface area of approximately 3,236,000 km<sup>2</sup>. From ISI c.s. (2006): COMPETE, Analysis of the contribution of transport policies to the competitiveness of the EU economy and comparison with the United States. It should be emphasised that it not an objective of the EU nor of the NMS to achieve an equivalent density of the motorway network. The calculation is merely an illustration.

ownership, and has reduced the use of public transport by train, tram, metro and bus. Freight transport by road has also grown significantly, because it is best able to accommodate the changing nature of transport flows: Distribution in denser networks of smaller volumes of goods for which timing is a crucial factor. Rail freight transport, which historically had a big share in many CEECs, has had to cope with operational problems and a decline in transport of bulk goods. Furthermore, the NMS face an enormous challenge expanding, rehabilitating and upgrading their infrastructure.

It is within this context that the Transport Acquis had to be transposed and implemented in the NMS. At the same time, these developments are also to some extent influenced by the acquis. In the next chapter, we discuss the impacts of the acquis in detail.



## 4. Impacts on the transport sector

The transposition and implementation of the Transport Acquis has provided criteria for market access, quality standards and state aid rules; all meant to create a level playing field and a sound industrial environment. The most drastic changes in conditions for transport operators have taken place in road and railway transport. The international road transport market has been liberalised. And the institutional structure in the railway sector has changed completely under the influence of the acquis: Infrastructure management has been separated from transport operations and freight transport has been separated from passenger transport.

The markets of inland navigation, maritime transport and aviation were in fact already to a large extent liberalised and subject to common regulatory regimes. Inland navigation faces practical obstacles: Locks in the Rhine-Danube canal hamper traffic, and navigation over the Danube was blocked until 2005 by debris from bombed bridges in Novi Sad. These factors limit the actual impact of enlargement. Aviation and maritime transport systems were, by nature, already far more embedded in the international systems through organisations like IATA and IMO. However, accession has had important impacts in the areas of maritime and aviation safety and the further liberalisation of the aviation market.

This chapter describes for each of the transport modes the most important impacts of the transposition and implementation of the acquis in the area of transport.

### 4.1. Road transport

#### The acquis for road transport

The Road Transport Acquis shapes a well-functioning internal market for road freight transport<sup>21</sup> and international bus and coach transport, and provides conditions for a European level playing field. The Road Transport Acquis consists of rules that govern:

- Technical conditions: Weights and dimensions, speed limitation devices, roadworthiness testing;
- Social conditions: Maximum driving hours, working time, rest periods and equipment (tachograph);
- Qualitative standards for access to the profession;
- Standards for drivers' training;
- Safety conditions: Driving licences, seat belt use;
- Dangerous goods transport;
- Principles for road charges;

<sup>21</sup> Although cabotage – road freight transport within a Member State by a non-resident operator on a temporary basis – has been made subject of a Transitional Period, see below.

- International agreements for goods transport with third countries such as Switzerland.

Albeit not through the Transport Acquis, the European regulatory framework also affects public transport by rules on contracting, procurement, tendering and compensation.

With regard to road safety, the role of the EU is bound by the subsidiary principle, which leaves most of the measures to improve safety to lower public levels. However, EU legislation on e.g. driving licenses, seat belt use, maximum drivers' hours, technical requirements, and the harmonisation of rules and enforcement practices on driving times, drink-driving and speeding do affect safety. The EU also promotes greater awareness and understanding among the general public, policy-makers and the media about how to make safer use the transport system, through e.g. the exchange of best practices.

The Environment Acquis is also relevant for the road transport sector, because of the regulation of vehicle emission standards.

#### **Transitional Periods in road transport:**

##### *Cabotage*

The Council has decided on a transitional arrangement on cabotage which entails that access of non-resident hauliers to the national road transport market of other Member States will, for many NMS, be phased in gradually. The transition arrangements are intended to reciprocally restrict the access to the national transport markets for an initial period of two years for the Czech Republic, Estonia, Latvia, Lithuania and Slovakia, and three years in the cases of Hungary and Poland. Any Member State (current and future) can prolong the initial period for a period of up to five years. Member States that have not prolonged the transitional period after the first initial period may apply a safeguard and close their cabotage market in case of a crisis, as long as any other Member State still applies the transitional period. Hauliers from Member States whose cabotage market is still closed are not allowed to perform cabotage in those other Member States that have opened their market after the first two (respectively three) years. As long as the transitional period is applied, current and New Member States may progressively exchange cabotage authorisations on the basis of a quota agreed bilaterally.

##### *Tachograph*

Cyprus was granted a transitional period until the end of 2005, during which vehicles registered before 1 January 2002 and engaged exclusively in domestic transport operations will not have to comply with the requirement of installation and use of recording equipment ("tachograph"). The same transitional period was granted to Latvia

until the beginning of 2005 for vehicles registered before 1 January 2001 and to Lithuania until the end of 2005, for vehicles produced before 1987 and engaged exclusively in domestic transport operations. Drivers of such vehicles in Cyprus, Latvia and Lithuania shall record their driving times and rest periods using a personal log book.

#### *Admission to the occupation*

Latvia and Lithuania have been granted transitional periods until the end of 2006, in order to reach the full level of financial standing required for the admission to the occupation of transport undertakings engaged exclusively in domestic road haulage and passenger transport operations. The available capital and the reserves of those undertakings shall gradually reach the minimum rates laid down in the Directive on admission to the occupation of road haulage operators and road passenger transport operators during the transitional period.

#### *Weights and dimensions*

Hungary and Poland have been granted transitional periods during which national axle-load limits may be maintained with regard to certain vehicles in international traffic complying with the Directive which lays down the maximum authorised weights in international traffic for certain road vehicles circulating within the Community. Hungary may maintain Hungarian axle-weight limits on non-upgraded parts of the Hungarian road network until the end of 2008. Poland may maintain Polish axle-weight limits on non-upgraded parts of the Polish road network until the end of 2010. The transitional periods have been made subject to a number of conditions, inter alia that Poland and Hungary shall adhere to their respective timetables for the upgrading of their main road network, that no restrictions may be imposed on the use, by vehicles complying with the requirements of the said Directive, of the main transit routes and that for the purpose of loading and unloading, when technically possible, the use of non-upgraded parts of the secondary road network shall be allowed during the entire transitional period.

#### *Roadworthiness tests*

Malta was granted a transitional period allowing that certain of the items prescribed by the Directive on the roadworthiness tests for motor vehicles and their trailers shall not be tested as regards motor vehicles engaged exclusively in domestic transport operations in Malta until the end of 2004.

#### *Speed imitation devices*

According to the transitional period granted to Malta, motor vehicles engaged exclusively in domestic transport operations in Malta need not be equipped with speed limitation devices until the end of 2005.

#### *Vehicle taxes*

Malta was granted a transitional period until the end of 2004 during which the minimum tax rates laid down in the Directive on the charging of heavy goods vehicles for the use of certain infrastructures shall not apply in Malta to vehicles engaged in international transport operations. During this period, the rates to be applied by Malta to these vehicles shall not be less than 80 per cent of the minima laid down in the Directive. Malta was also granted a transitional period for vehicles engaged exclusively in domestic transport operations until the end of 2005. During this period, the minimum tax rates to be applied by Malta to these vehicles shall not be less than 65 per cent of the minimum laid down in the Directive.

#### **Implementation of the acquis in the road sector has not been easy**

The Road Transport Acquis is demanding in terms of administrative ability to ensure application of the rules. A sector which formerly comprised only few state-owned companies 'suddenly' consisted of 110,000 entrepreneurs (Poland) with free market access, who needed to fulfil a multitude of requirements. Setting up administrative and enforcement organisations and systems has not been easy for NMS.

Some Technical Assistance functioned well to bridge the gap. In Poland, a transport inspectorate has been established using the know-how of French and German sister organisations ('Twinning'). The inspectorate also received financial support from the European Regional Development Fund and the World Bank to purchase equipment (19 special cars to carry out control on roads). The establishment of the road inspectorate in Poland is an example of a successful Technical Assistance project, as the road transport industry considers the inspections and inspectors who carry these out to be good and fair. Illustrative to this is that the German Inspection of Road Transport stated that the number of defective cars which drive through German territory from Poland has been reduced considerably. Inspectors from the road inspectorate now also manage training in other agencies on e.g. enforcement of driving and resting times.

#### **Enforcement still remains a point of attention**

Not only common rules are important for fair competition, but also the banning of differences in the application and enforcement in practice. Enforcing a EU wide level playing field for the road transport sector was already difficult before the enlargement. In the enlarged Union, the diversity of the checking and enforcement practice has further increased.

As already noted in Chapter 2, the enforcement of drivers' hours rules is troublesome and at the moment regulation is not uniformly applied. This is true for the EU-15, and even more so for the NMS. NMS have only recently instituted their inspectorates and have more limited means available for the execution of their tasks. Moreover, the strong growth in transport volumes makes effective enforcement more difficult. The



European Commission is now preparing guidelines for a more coherent and uniform interpretation of the rules throughout Europe.

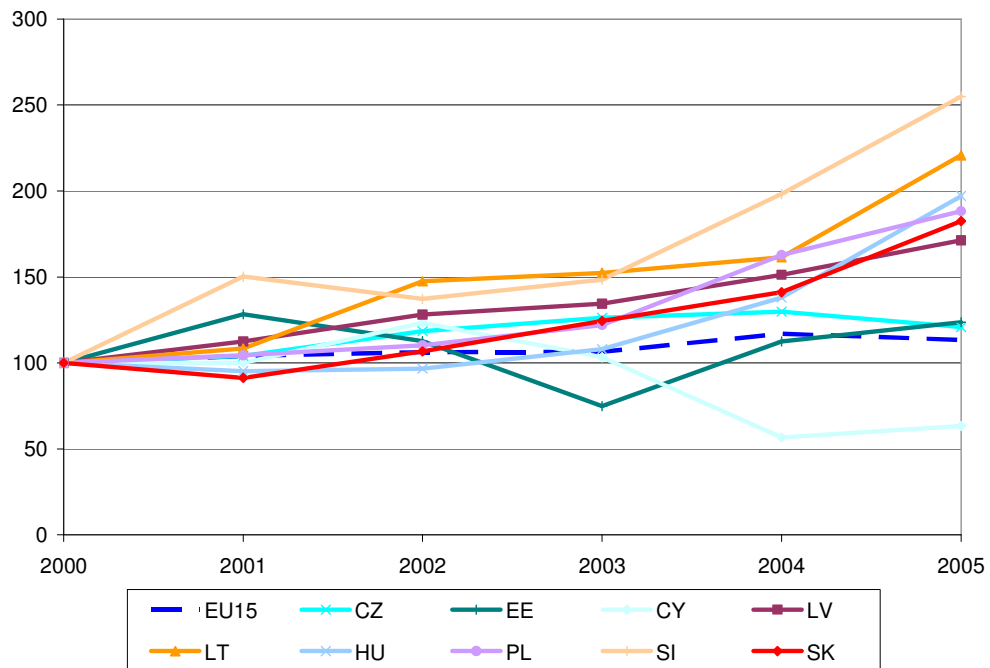
Cooperation between the EU-15 and NMS is facilitated through organisations such as TISPOL (European Traffic Police Network), CORTE (Confederation of Organisations in Road Transport Enforcement) and ECR (Euro Contrôle Route). Through organisations such as these, best practices and information are exchanged and assistance projects are set up. Poland, Romania, Bulgaria and Hungary are now full members, and several others act as observers of ECR, an organisation which is particularly important for the application of road transport legislation. By means of concrete tools such as websites that reveal fraudulent use of digital tachographs and tools to fight this fraud, actual work is being done to implement the regulations.

It is not surprising that several NMS companies have expressed their concern that drivers in their countries are more intensely inspected than others. Also, national governments are tempted by pressure from national associations to increase the rate of inspections to specific groups of foreign drivers. Patterns of allegations seem to reveal local frictions rather than general dispositions. There is no hard evidence to verify the distortions. It is clear, however, that administrations have not yet succeeded in setting up enforcement structures of which the market is confident that they ensure uniform and fair application of standards on the road, particularly (but certainly not only!) in NMS.

### **The liberalisation enabled a rapid growth of international road transport**

Until the date of accession, international road transport was governed by bilateral agreements between the former acceding countries and EU countries. There was a quota system which allocated permits for international trips. Such a permit was required for operators from NMS to enter or cross an EU state and vice versa. This system limited both the hauliers from NMS and those from EU-15, since both had the same number of quota. With the adoption of the *acquis* this situation changed, and the international road transport market was liberalised.

This enabled international road transport to grow rapidly in many NMS, as can be seen from Figure 8.



**Figure 8 Development international road haulage (2000=100)**  
(Source: Statistical Pocket Book Transport 2006)

### **NMS-operators take the highest share of the growing market**

The increase in international transport required additional investments in the road transport industry. Initially, mainly operators from NMS benefited from the liberalisation. They had very low operating costs compared to EU-15 companies. Immediately after the opening of the international market, NMS road operators increased their market shares from the regulated 50 per cent to over 90 per cent on some relations. Here, the lower production costs (mainly due to lower wage costs) of NMS operators led to an enormous competitive advantage.

In Poland, the number of vehicles engaged in international road transport grew from 3-7,000 vehicles in 1990, to 40-50,000 vehicles in 2004, to approximately 100,000 in 2005. The number of companies in international road transport has more than doubled: From 8,716 in 2003 to 17,572 in 2006. In Hungary, the number of international road transport companies almost tripled due to the liberalisation of the market.

### **Efficiency in the road transport sector has improved considerably**

The disappearing of borders within the EU has had a direct impact on the operational efficiency of transport services. Customs handling time and particularly the waiting times at borders commonly cost delays of two hours on mid-weekdays and up to eight hours on Mondays and Fridays. Traffic was highly concentrated on Mondays and Fridays because of production schedules and because of weekend bans for freight

traffic. Rigidities due to limited opening hours of customs offices or e.g. veterinary or in vitro checks also contributed to the inefficiency. On average, the waiting times of trucks at borders comprised between 15 and 25 per cent of the weekly operating times, which has now been marginalised. This has reduced the fixed-cost component of the transport operations, with total cost reductions of up to 15 per cent.

The abolishment of the quota system has attracted new firms into the market, which has caused competition to intensify throughout the EU. A side-effect of the former quota system was that it protected incumbent firms, causing inefficiencies to persist and allowing for unbalanced profit margins in the transport sector. The increased competition after liberalisation has resulted in further improvements of efficiency. As a consequence, prices have dropped by up to 20 per cent depending on the transport relation.

### **Consolidation is the trend in the road haulage industry**

The structure of the road haulage markets in most of the NMS has typically developed from a few large state-owned companies before the fall of the iron curtain to a very fragmented road haulage market in the late 1990s. Former large state-owned companies were dissolved or privatised, and meanwhile the road transport profession attracted many who had experience as drivers in e.g. agriculture or the army. Hence the market in the NMS in the mid-1990s consisted mainly of small companies, most commonly single-truck owners who also drove a truck. Many had started their companies with old equipment, with no particular certification and with little capital.

Many of these small operators in NMS were not able to meet the requirements of the acquis on especially financial standing, professional competence and technical conditions. Hence, enlargement led to a big 'shakedown' among operators.

Many other small operators decided to join large companies as employers or as full-time sub-contractors. In the latter case, the larger companies have only taken over the marketing and planning functions. This kind of cooperation provides the small companies with access to the market and increases their operational efficiency.

These developments have led to large decreases in the number of road transport companies. For instance, it is estimated that in 2004, the total number of companies engaged in road transport (both domestic and international) in Poland decreased by a third compared to 2002. In Hungary, the number of companies in domestic transport decreased by 14 per cent as a consequence of accession. It should be noted that the market in both countries remains quite fragmented. In Poland, 74 per cent of operators own one to four vehicles and employ up to five people, and in Hungary 66 per cent of companies are capital-scarce, self-employed operators. It is expected that the trend of consolidation will continue in the years to come, and that many more small operators will go out of business.

### **Worries about disruptive effects and job loss in EU-15 have not proven justified**

Before 2004, there were concerns within the EU-15 that their markets would be overrun by cheap hauliers from NMS as soon as they entered the EU. In 1998, the wage costs per truck of an EU-15 operator were on average five times those of an NMS haulier<sup>22</sup>. The concern was that NMS drivers would substitute more expensive EU-15 drivers, and that NMS companies would take a large share of the market. These concerns existed for international transport, but they also existed for domestic transport through cabotage. It was anticipated that this would lead to job losses in the EU-15. Hence, in the accession negotiations, the Council decided on a Transitional Period denying operators from most NMS the right of cabotage for several years after accession. The access to the national transport markets between current and New Member States was reciprocally restricted for an initial period of two or three years (depending on other transitional periods in road transport), which could be prolonged by a maximum of two years.

Expectations proved to hold true on bilateral transport relations between the EU-15 and NMS. The number of EU-15-drivers in road transport between EU-15 and NMS declined considerably because of their relatively high costs. NMS drivers also obtained a share in international flows between EU-15 countries, albeit on a lower scale.

The competition from NMS-operators made many EU-15 companies decide to turn towards their domestic markets, causing increased competition there, which is felt especially by small and medium-sized transport companies in EU-15 countries. This means that the initial disruptive effects were not limited to traffic with NMS, but spread out to transport within and between EU-15 countries.

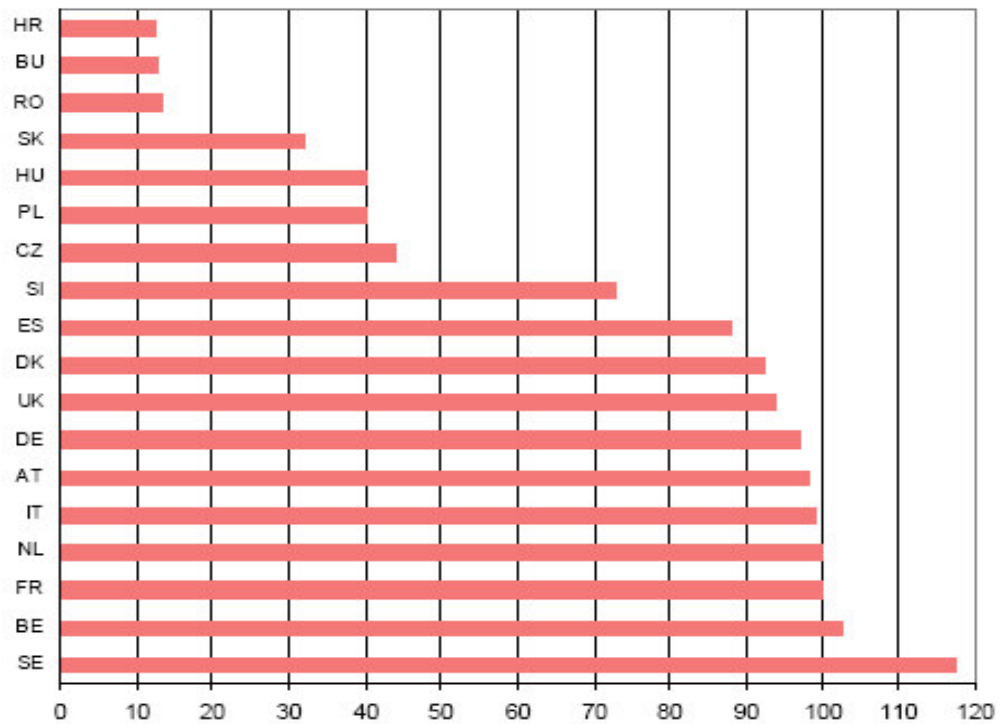
The social impact in the EU-15 has been less harsh than expected. In the EU-15, the demand for road transport services has also increased sharply. This has meant growing demand for drivers in the EU-15 in domestic transport. Meanwhile, EU-15 drivers are less keen on working internationally because of the long hours and long periods away from home. This has caused a decrease in the supply. As a result of these developments, there is now a shortage of drivers in the EU-15, and the loss of market share of EU-15 drivers in international road transport has not led to major disruptions.

Also in the NMS, the labour market has become more strained. Until a few years ago, hauliers did not have to put much effort into finding qualified personnel, but now it has become more difficult. There are now even reports of shortages in the labour market.<sup>23</sup>

<sup>22</sup> International Road Freight Transport (Halcrow Fox/ NEI: Costs and Benefits of Enlargement (CBET), 1999).

<sup>23</sup> In Poland for instance these shortages are estimated to be 30,000 drivers (Financieel Dagblad (January 12, 2007): Poolse Vrachtwagenchauffeurs zijn op)

Salaries have risen as a consequence. However, the gap within salaries in EU-15 countries remains sizeable, as can be seen from the figure below.



**Figure 9 Country differences in labour costs of road haulage in 2005**  
 (Source: European Commission (2007): Impact assessment of legislative proposals on the access to the occupation and the access to the market, SEC(2007) 635/2)

In some NMS, the same effects as in the EU-15 countries a few years ago are now occurring, as Romanian and Bulgarian drivers have entered the Hungarian, Czech and Slovak markets. Low-wage drivers from e.g. the Ukraine, Belarus and Russia without the necessary permits are posing an increasing threat to fair competition.

#### **Markets of EU-15 and NMS tend to converge**

Differences in operating costs between NMS and EU-15 still exist, but are slowly converging.<sup>24</sup> Labour costs have risen. Advantages for NMS operators in vehicle costs have vanished, because they now use up-to-date equipment. Also, with regard to fuel costs and costs of real estate, differences are disappearing, while in the meantime currency exchange rates have revaluated against the Euro.

<sup>24</sup> It should be noted that NEA reports that the gap in costs per kilometre has grown between EU-15 and NMS operators in international road transport in the period from 1998 to 2004. From interviews conducted in connection with the case studies we obtained a different picture, however. See NEA (2006): Selected recent statistics on road freight transport in Europe.

### **EU-15 logistics companies started operations in NMS**

Already well before accession, many large logistics companies from EU-15 settled in NMS, either by establishing greenfield operations, joint ventures or through takeovers. This was in a period when the large EU-15 logistics companies could benefit from the lack of organisation in the NMS road transport industry, which was made up of small companies, not yet capable of offering full logistic services to large clients. Moreover, in contrast to small NMS operators, EU-15 logistics companies had access to capital and could make the necessary investments in new equipment, warehouses, ICT systems, etc. Expansion to NMS was also furthered by the movement of many international clients to Eastern Europe, establishing plants or distribution centres in NMS. EU-15 logistics companies had proven expertise in advanced logistic services, which was required to serve the high standards their clients demanded.

Other international hauliers mainly operated in a market of low-cost services. Their competitive advantage was their access to clients and their ability to establish a vast and low-cost network of subcontractors and of attracting labour.

Many EU-15 companies benefited greatly from enlargement. For instance, Raben Group – a Dutch company active in Poland since 1991 – reports that transport on export lines doubled within six months after the Polish accession to the EU.

### **NMS-owned logistics companies are emerging**

In the years since 2000, an increasing number of large transport companies have emerged in NMS, by means of takeovers and mergers. These companies – still small in number – have obtained sufficient scale for offering integrated services to larger international clients, increasingly also including logistics services.

To some extent, the presence of EU-15 companies in NMS has been instrumental in the ongoing development of the road transport sector into a professional logistics services industry. Many NMS road transport companies served as subcontractors to foreign logistics companies. They now still often have these international logistics companies as their clients, but some have also successfully evolved into international full logistics service providers.

The increasing presence of capable logistics companies has changed the attitude of the larger clients. Nowadays, they require service providers to be one-stop-shops, and therefore will only consider companies which meet this standard and are capable of providing a good quality in all logistics services. This is an important pull-factor for the further development of the road transport sector in the NMS into an industry of logistics services.

### **Public transport in NMS is slowly adapting to the new situation**

Budget cuts and increased private car ownership influence the position of public transport operators in the NMS. The legal involvement of the EU regarding the organisation of public transport is limited – contrary to railways where similar problems prevail. Regulation 11/91 requires that for ‘Public Service Obligations’, contracts are concluded (between operator and authority) and that the actual obligations (lower tariffs, loss-making routes) should be compensated for. This regulation is currently being revised. Most likely, future regulation will also conclude (with some exceptions) that these services should be subject to competitive tendering.

NMS have difficulties in complying with ‘11/91’, specifically regarding the aspect of compensation. Authorities are reluctant to raise tariffs or limit the number of people (pensioners, students, etc) who can travel at reduced tariffs. When operation costs rise while compensation stabilises or decreases, it is clear that operators enter into difficulties.

#### **Budapest public transport contract**

The city of Budapest has concluded a net-cost contract (revenues belong to the operator) with the public transport operator BKV for a period of eight years. The contract was awarded directly to BKV, without competition on 30 April 2004, just before accession. BKV receives some ‘compensation’ for Public Service Obligations. However, the total sum of the revenues does not cover the total costs, resulting in a deficit that is financed by a growing debt in BKV.

The experiences with a more market-oriented approach are mixed so far. Some tendering processes have ensured more transport for less money. However, also the element of ‘cherry picking’ by private operators and undesirable competition between bus and (loss-making) railways was reported. This is a consequence of private operators being allowed to access the market, while at the same time state-owned enterprises are still obliged to maintain loss-making services and apply low tariffs for pensioners, military staff, students etc.

#### **Cherry picking in Poland**

A typical feature of the public transport network in many NMS cities is the existence of many small private operators that deliver profitable transport subsidies without any subsidy. In Poland, for example, these services run in the municipality of Cracow. The problem is that these companies, which only run profitable routes, will not fulfil any Public Service Obligations. This makes it more difficult for the municipality-owned operator (the MPK in the case of Cracow) to maximise the revenues, since they are obliged to serve low-volume routes and apply low tariffs.

Most public transport services in NMS, however, have so far not been tendered. In Hungary, for instance, both state and local level government awarded contracts to current operators for the duration of eight years just before accession, which has effectively delayed the necessity to raise this issue until 2012. The Law on Concessions as applied in Hungary allows for both direct award and competitive tendering. In practice, the market is served by municipal and state companies, which are legal monopolies empowered by the perpetual operating licences granted by law.

In Poland, first experiences with tendering and contracting have been established through competitive award of approximately 10 per cent of the network in Warsaw (still approximately 4 million vehicle-kilometres annually). After a tendering process, a 10-year gross-cost contract was concluded with the private operator "International Transport Spedition Adam Michalczewski". Although the policy ambition was to have both lower costs and better quality, the sole criterion for the award was the price per vehicle-kilometre.

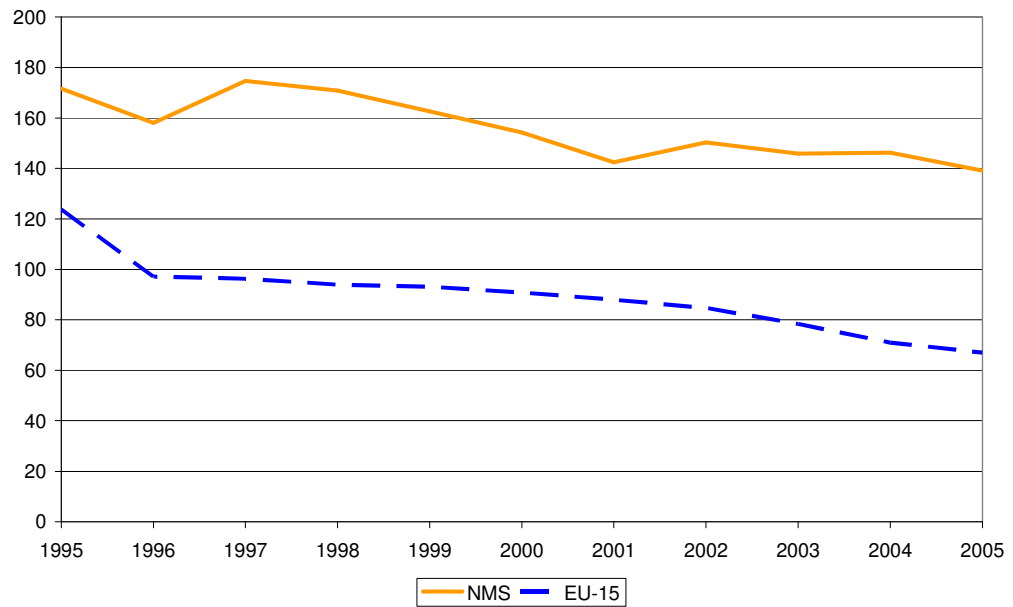
### **Road safety has improved in NMS but fatalities remain twice as high compared to EU-15**

In the 1990s, the number of casualties in NMS was higher than in the EU-15, despite its much lower volume of traffic.<sup>25</sup> This is probably due to a very short tradition of political attention to road safety. Today, NMS still have on average approximately twice as many fatalities per million inhabitants as the EU15. There are, however, large differences among NMS, with approximately 100 casualties per million inhabitants in Slovakia in 2005, and approximately 220 in Lithuania. Still, most NMS have succeeded in breaking the trend: The absolute number of fatalities has been reduced over last 10-12 years, despite great mobility increases.

---

<sup>25</sup> Based on CARE-data (European road accident database)





**Figure 10** Development of the number of casualties in road traffic per million inhabitants in NMS and EU-15  
(Source: CARE (EU road accident database))

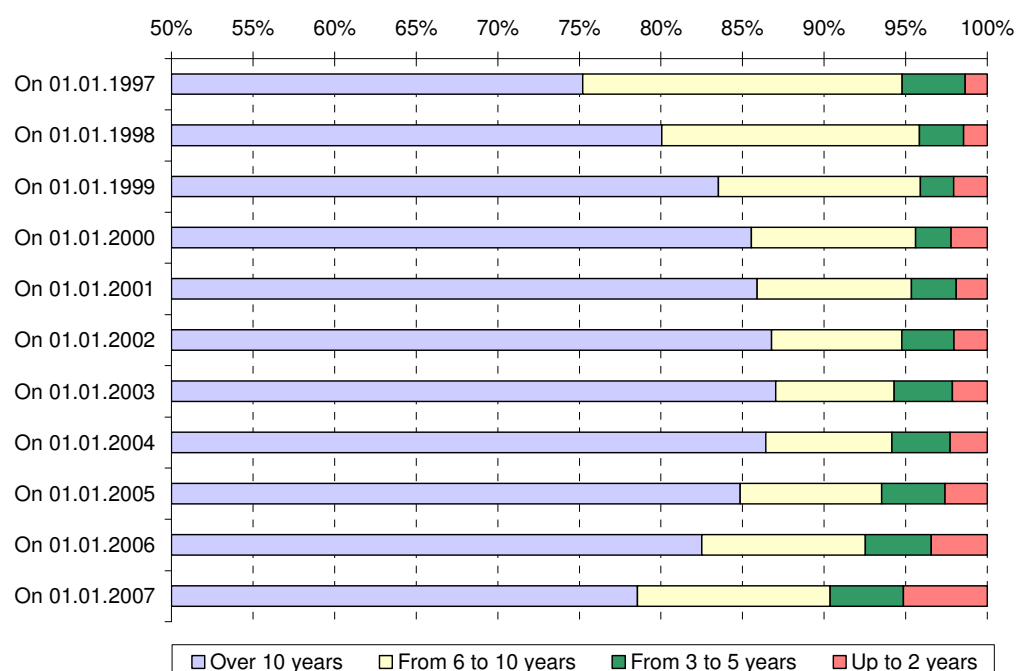
The EU rules on road safety are mainly focussed on commercial transport. These comprise roadworthiness tests of vehicles, rules on e.g. weight and dimensions, tachograph, braking systems, limits on exhaust emissions, driving licences, transport of dangerous goods, speed limitation devices and tyre tread depth. The main general rules on road safety concern safety belts, drinking and driving and driving licences.

The NMS, like the EU-15, have committed themselves to drastically reducing the number of fatalities. On top of the legislation and enforcement, all NMS are implementing road safety measures inspired by the best practices from the EU-15 and derived from the road safety action programme for EU. Measures aim to improve road infrastructure, but also include soft measures such as traffic calming and other traffic management, safety audits, training and campaigns and institutions for enforcement. Some NMS have developed a national road safety plan, encouraged by the EU.

Compliance with the Transport Acquis and association with EU policies have increased the awareness of road safety in the NMS. The administration has obtained new tools and knowledge regarding road safety work. Conditions have improved, but are far from ideal yet, particularly due to constraints in the means to develop infrastructure and to limited enforcement capacity.

### Environmental impacts of enlargement are mixed

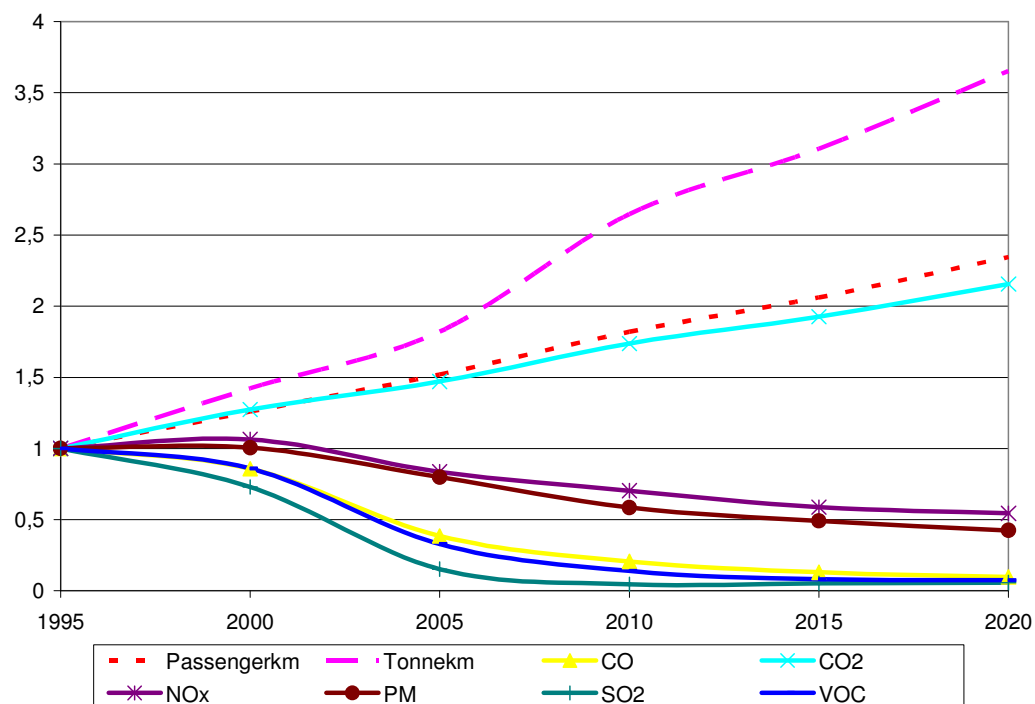
The EU vehicle emission standards are intended to reduce traffic emissions. Until now, the improvement of the technical state of the vehicle stock in NMS has not kept pace with the increase in mobility. This is because the emission standards are posed on new vehicles only, and the rate of fleet renewal in NMS has been rather low. The fleet composition is comparable to EU-15 levels only in international commercial transport. For private cars and in commercial national transport sectors, the average age of vehicles is well above EU-15 levels. For example, in Latvia almost 80 per cent of the vehicles – commercial and private – are over ten years old, compared to approximately 30 per cent in Germany. As a consequence of the disappearance of restrictions on the import of cars, many second-hand cars were brought to the NMS from the EU-15. Furthermore, vehicles tend to have longer life spans in NMS. As can be seen from Figure 11, fleet renewal is progressing only slowly.



**Figure 11** Development of age distribution of vehicle stock for cars in Latvia  
(Source: Ministry of Transport, Latvia)

In Poland, the trend of increasing emissions is bending for particle matters (PM), carbon monoxide (CO), sulphur dioxide (SO<sub>2</sub>) and volatile organic components (VOC) and nitrous oxide (NO<sub>x</sub>). Model runs forecast an imminent decline of these emissions (see Figure 12). However, emissions from carbon dioxide (CO<sub>2</sub>) are linearly dependent on fuel consumption and will therefore follow the increasing trend of mobility in NMS. In other NMS, emissions are expected to follow similar trends, though it should be noted that transport growth is expected to grow faster in Poland than in most other NMS. The

time needed for convergence of emission levels to those in EU-15 will depend on the willingness in NMS to abandon old vehicles.



**Figure 12 Development of emissions and transport volumes in Poland (1995=1)**  
(Source: TREMOVE)

#### Increasing awareness of environmental issues

There is also a growing awareness within cities in NMS of the importance of investments in cleaner vehicles and integration of smart public transport and spatial planning. This is partly a result of the exchange of best practices in EU programmes such as CIVITAS and INTERREG that co-finance environmental friendly investments.

## 4.2. Railway transport

### The acquis for railway transport

The major element in the Rail Transport Acquis is the implementation of the “first railway package”<sup>26</sup> and the preceding legislation of the 1990s.<sup>27</sup> Important elements are:

- Separation of accounts between rail transport operations and infrastructure management;
- Separation of accounts between freight and passenger services;

<sup>26</sup> Directives 2001/12, 13 and 14

<sup>27</sup> Directive 91/440 on the Development of the Community's Railways; Directive 95/18 on the licensing of railway undertakings; and Directive 95/19 on the Allocation of Railway Infrastructure capacity and the charging of infrastructure fees.

- Separation between the essential functions of capacity allocation, infrastructure charging, licensing and monitoring of Public Service Obligations;
- Foundation of an independent regulatory body;
- Licensing of railway undertakings;
- Granting of infrastructure access rights for international freight services on the trans-European rail freight network;
- Allocation of railway infrastructure;
- Levying of charges for the use of infrastructure (with minimum charges covering marginal costs);
- Technical specifications for interoperability.

In addition to the first railway package, Directives were adopted on interoperability.<sup>28</sup>

The second railway package was published literally on the eve before accession; in the Official Journal of the European Union on 30 April 2004. The legislation contained in the second railway package has implications for interoperability and safety management on the railway. The elements of the second package are:

- The Interoperability Amendment Directive, which harmonises the High Speed (96/48EC) and the Conventional (2001/16/EC) Directives, extends the scope of the Conventional Directive to the whole of the mainline network and extends the scope of the High Speed Directive to include renewals.
- A Directive on railway safety which aims to develop a common approach to safety regulation and management across the EU.
- A Regulation establishing the European Rail Agency (ERA) which will advise on the development of interoperability and the implementation of the Safety Directive. The ERA is now established and fully operational.
- Rail freight market opening by 1 January 2006 for international rail freight services on the whole network and opening for all rail freight services by 1 January 2007.

The acquis offers guidelines on state aid which is quite relevant to railway transport, because national railway companies are state-owned. Compensation of losses to railway operators or subsidies by the state for the exploitation of rail services are not allowed, except when this is arranged beforehand through Public Service Contracts (PSCs). Governments must ensure that the rail sector is generally financially stable<sup>29</sup>, and must compensate companies for public services that it considers to be socially desirable but which cannot be exploited with an adequate return<sup>30</sup>.

---

<sup>28</sup> Directives 96/48 and 2001/16

<sup>29</sup> Directive 91/440 on the development of the Community's railways, art. 9.

<sup>30</sup> Regulation 1191/69 on actions by Member States concerning the obligations inherent in the concept of a public service in transport by rail, road and inland waterways.

To overcome the technical fragmentation in the national markets, the acquis contains specifications for interoperability of rail systems, including signalling and command control systems. The transport of dangerous goods by rail is also regulated.

#### **Transitional Periods in railway transport:**

##### *Development of the Community's railways*

Both Poland and Hungary have been granted a transitional arrangement as regards Directive 91/440/EEC, permitting the limitation of access to the Trans-European Rail Freight Network under certain conditions until the end of 2006. However at least 20 per cent of the annual total capacity of the Trans-European Rail Freight Network in Poland and Hungary shall be reserved for railway undertakings other than the incumbent operators. The actual capacity of each railway line shall be indicated by the infrastructure manager in the network statement.

#### **Railway reform in NMS is at pace with EU-15**

The transposition of the railway reform measures into national legislation in NMS went smoothly. Some of the NMS were actually faster to transpose the Railway Transport Acquis than several EU-15 states, although they began the process earlier.

The largest transformation for the railway sector in the NMS was the creation of new entities which had to fulfil new roles within the sector: independent safety authority, licensing body, accident investigation agency, certification body etc. Technical Assistance projects succeeded gradually, with the recipient, to ensure that EU legislation in these areas was put in place. TA projects sometimes had difficulties integrating the railway expertise within their domestic teams. Employees of railway undertakings were reluctant to cooperate, as railway companies were sceptical about the effects of EU railway legislation. Ministry of Transport officials did not have the know-how and lacked the bureaucratic power to ensure commitment and cooperation by the important railway companies.

A report from June 2005<sup>31</sup> presents the situation regarding the transposition and implementation of railway legislation within Member States, and gives a few examples of constraints with regard to implementation. We list here those mentioned for the NMS:

- Czech Republic: Complex range of different authorities and organisations may represent a barrier for new external railway undertakings.
- Estonia: Although 20 operators are licensed, both Estonia Railway and Edelaraudtee nearly have a monopoly on the freight transport on their infrastructure.
- Latvia: Although most Directives are transposed, it is difficult to judge how they work in practice, as there are few new entrants into the market with small market shares.

<sup>31</sup> NEA et al. (June 2005): European Railway Institutions and Legislation (ERAIL).

- Lithuania: Although according to law, a PSO contract is obligatory between the authority and the operator, there is no PSO contract between the railway operator and the MOT for passenger transportation.
- Hungary: The precise amount of infrastructure charges has not yet been clarified.
- Poland: The access contracts between the infrastructure managers and the operators are not open to the regulatory body.
- Slovenia: Several Directives have already been transposed to national law, however, objectives and procedures for the various actors are still under elaboration.
- Slovakia: The provisions for the recognition of licenses issued by other EU Member States in line with Directive 2001/13/EC are not yet in force.

Note that this is a selection of obstacles in the NMS. Similar constraints can be found for the 'Old' Member States.

#### **Railway reform in NMS is not uniform**

Although the NMS have closely followed the EU developments in railways, there has been no standard model to adopt. Different models have been adopted, for instance:

- The UK full privatisation model;
- The German vertical separation model;
- The French accounting separation model (setting up an infrastructure manager with limited functions).

During the accession it happened that both the German and French national railway operators (DB and SNCF respectively) offered Technical Assistance to NMS, but offered conflicting advice, advocating their 'own' model.

The EU model does not offer a solution for the general state of the infrastructure in the NMS or the culture of the organisations. Consequently, these issues still need to be addressed.

#### **Railway sector in NMS plagued by problems**

The traditional NMS rail sector consisted of a single state-owned organisation running both infrastructure management and transport operations, both freight and passengers. Effectively, the Ministry of Transport was in direct control of railway strategy and operations.

The railway sector in the NMS was furthermore shaped by the former communist government structures. One of the most substantial effects of this was that railway organisations were characterised by extensive 'social labour'. Railway companies also often engaged in activities not directly related to railway transport, as they usually owned schools, hospitals, leisure facilities, apartment buildings, etc.

Railways in the NMS historically had a prominent role in transport, which is reflected in a high modal share and a very extensive network in comparison to the EU-15.

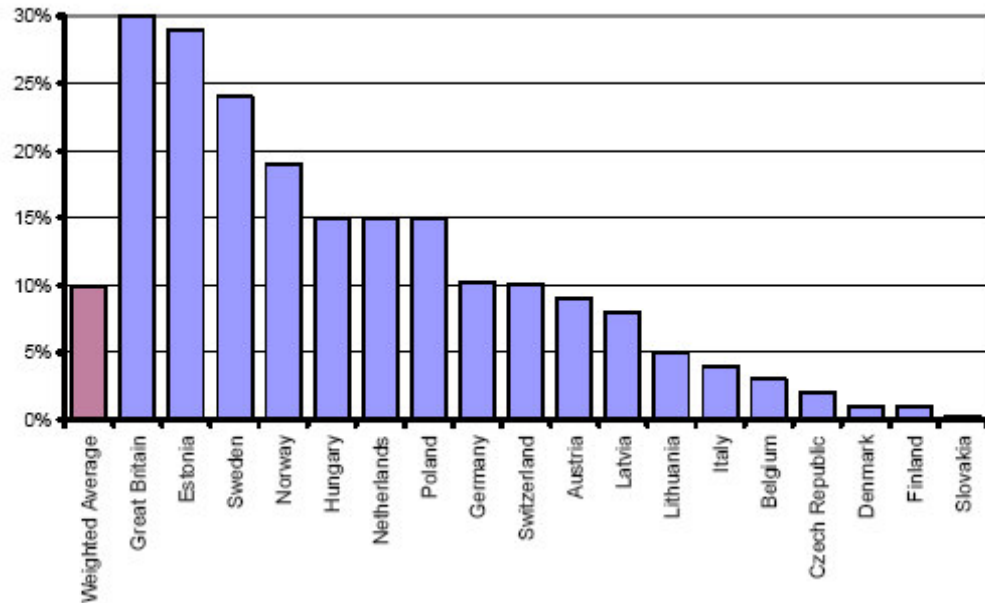
After 1989, the Central and Eastern European countries observed a sharp drop in the demand for rail transport, as transport volumes decreased by 50 per cent. This sudden change was caused by a decrease in the demand for transport of bulk goods, as heavy industries declined and disappeared, and private car ownership and use steadily increased. Declining service levels and high infrastructures caused further decline.

The high cost base, extensive declines in transport volumes, high expenditures for rationalisation and reorganisation, and insufficient possibilities to close down unprofitable operations (as companies were expected to maintain similar levels of service) caused serious financial problems for railway companies in the NMS. Equity capital declined from a total of approximately 28 billion euro in 1995 to only approximately 4 billion euro in 2004. On the other hand, debts rose from approximately 2,7 billion euro to 12 billion euro in the corresponding period.

Plagued by these problems, the necessity of reform and restructuring in the railway sector was well understood in the NMS. The acquis has shaped the direction of the reforms and restructuring operations.

#### **Market entry in NMS is at pace with EU15**

In most NMS, new rail operators have entered the rail freight market, but their share of total transport demand remains modest, which is shown in the figure below. However, NMS do not score significantly worse than EU15 countries. Note that France is not in the graph, because there was not more than one operator in 2005.



**Figure 13 Market share in TKM not held by the largest operator in countries with more than one operator (Source: Steer Davies Gleave: Railimplement (2005))**

Several entry barriers still remain in practice. Examples are:

- Time-consuming and costly homologation of locomotives is still due in all Member States. This deters foreign railway companies from entering the market.
- Reported frustrating procedures for e.g. licensing or safety certificates, seemingly because of closer ties with state operators.
- The Russian Federation does not acknowledge private operators. International railway transport through the Eastern border with CIS can only be established with cooperation of the state companies.
- National orientation of safety systems and electrification systems (different power currents) and dedicated rolling stock.
- Lack of locomotives and lack of train drivers, which make it difficult to start up new activities. It is more difficult for newcomers in the market to obtain locomotives and attract personnel.



### **One size fits all is no solution for the Baltic states**

The income from railway transit of freight to Russia is extremely important for the economies of the Baltic states. Because of technical (wider gauge) and of the organisational reasons (CIS railways only deal with the national operators of the Baltic states), some parts of the EU legislation are irrelevant and/or inefficient. This is an illustration of the fact that 'pushing the EU solution' does not always make sense in all local circumstances. The enlargement has increased the diversity of the Union, also in relation to transport. Awareness of these peculiarities has sometimes been hard to raise by the NMS in their position of candidate states.

In order to deal with the Baltic problems, the European Railway Agency (ERA) has set up a special working party dealing with the convergence of the 1435 mm and the 1520/1524 mm gauge networks. Moreover, a contact group between the Organization for the Cooperation of Railways (OSJD) and ERA on the possible convergence of the EU and non-EU 1520/1524 mm gauge systems has been established.

New market entry also takes time to develop because of the economic risk, the scale, capital intensity and the complexity of the railway freight business. Moreover, market entrants also face the same constraints of the poor infrastructure. Although there is an extensive network in terms of length, maintenance backlogs result in a very low maximum speed for trains. Apart from that, usually passenger transport has priority over freight, which puts freight at a competitive disadvantage. Furthermore, while procedures in international road traffic have been abolished, railways still suffer from sometimes extraordinary border procedures, which seem to be due to a reluctance to change by actors rather than by legal or technical necessity.

### **Efficiency levels in railway have not unambiguously improved**

In the state-owned railway enterprises, employment levels have become much lower. In Poland, for instance, only one third of employees produce the same level of output, after abandoning of social employment. This is evidence of a positive trend in railway efficiency.

However, railways in the NMS suffer from a poor quality of infrastructure, and much of the rolling stock is obsolete. Because of this, the efficiency of railway operations is far from good and utilisation rates of labour and assets are low. Investments remain low, because of the uncertain future and because of the poor financial position of railway undertakings.

Additional efficiency gains in international transport can be achieved by improving border procedures. These are as time-consuming as they were before the enlargement of the EU. This concerns documentation, transfer of liability, exchange of drivers and

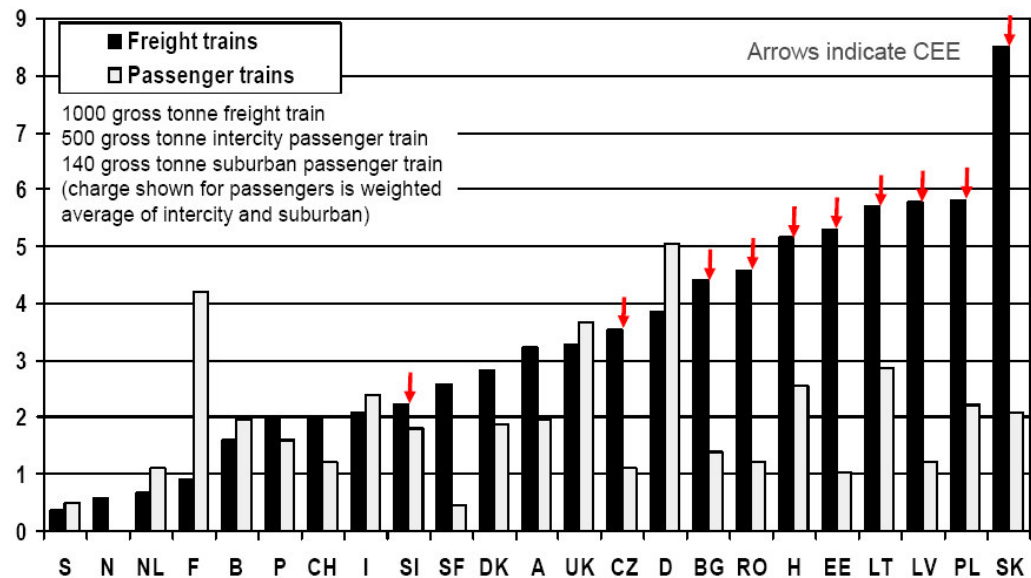
locomotives, and the related testing of brakes and waiting times involved due to friction between operations of different Member States.

### Passenger rail transport is losing share

Passenger transport by rail is losing its share to private car transport. The loss in revenues puts pressure on fares as well, but fare price increases are avoided because of public transport's social function. At the same time, railway companies are still forced to operate many lines that cannot be profitably exploited. Public Service Obligations have so far been inadequately supplied for these lines, leading to extensive losses for railway companies. It is estimated that these losses now amount to approximately 0.4 billion euro per year.<sup>32</sup>

### Charges for infrastructure inhibit the development of rail freight transport

The infrastructure charges to freight traffic tend to be high in NMS (see Figure 14). According to EU rules, marginal maintenance costs should be the guiding principle for determining the charges, meaning that the costs which vary with the use of infrastructure should be accounted for.



**Figure 14 Average access charges in 2004 (euro/train km, excluding cost of electric traction)**  
(Source: Taken directly from ECMT (2005): Railway Reform and Charges for the Use of Infrastructure)

Part of the differences in the charges for freight and passenger transport can be explained by differences in marginal maintenance costs, i.e. the additional costs of

<sup>32</sup> CER (2007): Fact sheet, "Why imposed under-compensation leads to the collapse of public service transport".

maintenance imposed by the use of the infrastructure. Some part of the current high charges in freight transport in NMS may also be explained by the inclusion of fixed maintenance costs and lagged maintenance works in the calculation of the charges. The EU Directive on infrastructure charging does offer some possibilities for this. However, most likely the big differences in charges for passenger and freight railway transport are an indication of cross-subsidies from freight transport to passenger transport. Loss-making (regional) passenger services which are not adequately compensated under Public Service Obligations appear to be supported by low infrastructure charges, at the expense of high charges for freight services.

The practice of cross-subsidising rail passenger transport via higher infrastructure charges for freight transport is an indication of profound financial imbalances in the railway systems of most NMS. Due to the lack of long-term strategic plans in NMS on the future of their rail infrastructure, which would prioritise investments in maintenance and development of the networks, scarce public resources are not put to the socio-economically most desirable uses.

### **The combined transport market suffers**

Before the accession, rolling highway services – complete trucks on the train - were an important market in Central Europe. This type of combined transport has nearly disappeared since accession, however. Before, the rolling highways were used by road hauliers as a way of circumventing the former restrictive system of permits and of avoiding the costly waiting times at borders. In the current liberalised road transport market, the services appear not to be competitive in terms of quality and price (high access charges being an important factor) and have collapsed. In Hungary, for instance, the number of trucks forwarded by train of Hungarian nationality dropped from 33,581 to 8,984. No corresponding drop was recorded for trucks of countries that had not yet joined the EU (Romania, Bulgaria, Turkey, etc.)

Other types of intra-European combined transport services have hardly developed. The general observation is that the speed and reliability which services can attain in international corridors in NMS has been insufficient and prices are not competitive to road up to now.

The development of the container market has been successful, due to the vast increase in total container traffic to and from NMS. Many new container transport services between seaports and terminals in NMS have been established. These services take a significant share of the seaports' hinterland traffic.

### 4.3. Other modes of transport

#### 4.3.1. Maritime transport

##### **The acquis for maritime transport**

Maritime transport services have the longest tradition of global competition of all transport modes. It is a highly liberalised market, for which competitive conduct has been regulated under International Maritime Organization (IMO) and UN regimes. In comparison to e.g. road and railway transport, the impact of the acquis in establishing a level playing field is hence limited. The acquis on maritime transport defines indiscriminatory access to maritime services to and from ports in the EU for ships of Member State flags or under control of Member States.

The role of the European Union has been more prominent in the fields of safety and environment. The regulation on safety and environmental issues in the maritime sector has always been developed and coordinated on a global scale, resulting in international conventions by IMO and UN. Implementation and enforcement are in the first place a responsibility of the Flag States – the countries where ships are registered.

Additionally, regional inspection regimes have been set in place around the world in order to ensure that high levels of control over safety and environmental matters can be applied in these areas - so called Port State Control. When ships call at ports in different countries, these countries have the right to inspect them to ensure that they are seaworthy. In Europe, such a regime was established with an agreement signed in Paris on 26 January 1982, known as the Memorandum of Understanding on Control of Ships by the Port State (Paris MoU). Under Paris MoU, a black-list is maintained, indicating the risk of unsafe ships, depending on the observed status of the fleet. Ships under high-risk flags must be submitted to inspections more often than ships under flags with good repute.

The instruments of EU maritime policy on safety and environmental protection are mainly directed towards enforcement of Flag State Control and Port State Control.

Flag State Control is organised by the EU Directive 94/57/EC. It introduced a system of community-wide mutual recognition of classification societies. Classification societies are companies carrying out the ship surveys and inspections. Under this Directive, only highly reliable and professionally competent bodies are allowed by the EU as “recognised organisations” to carry out statutory surveys and certification on behalf of EU Member States. The recognised organisations are named in the Directive.

Port State Control is organised through Directive 95/21/EC. This Directive aims at:

- Increasing compliance with international and relevant Community legislation on maritime safety, protection of the maritime environment and living and working conditions on board ships of all flags.
- Establishing common criteria for control of ships by the Port State and harmonising procedures on inspection and detention.

The Directive requires that, on average, Member States inspect at least 25 per cent of the foreign ships that enter its ports in a given year, calculated on the basis of the three most recent calendar years. Furthermore, ships must be inspected at intervals reflecting the risk they pose.

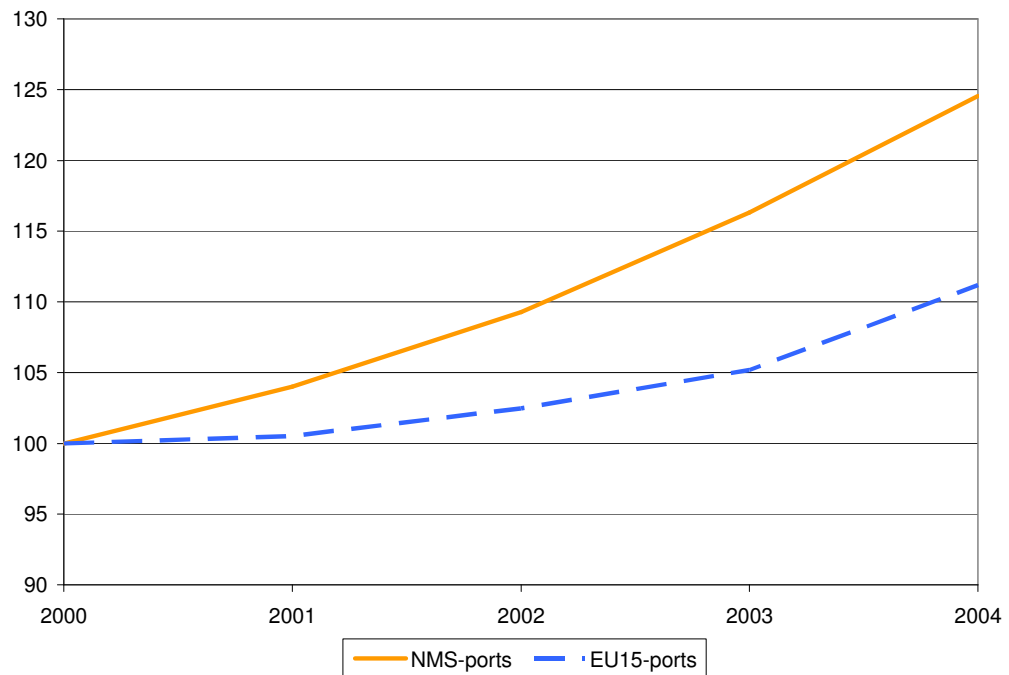
Other Directives on maritime safety and environmental protection concern a minimum level of training of seafarers, working time of seafarers, ships carrying dangerous goods, environmentally friendly tankers, waste reception facilities and safety requirements for new and existing seagoing fishing vessels with a length of 24 metres and over.

The European Maritime Safety Agency (EMSA) contributes to enhancement of the overall maritime safety system in the Community.

On the edges of the scope of this study but very relevant to maritime transport related services is the European regulatory framework for state aid and competition. Historically the ports and related activities on shipyards have a very important role as employer in countries like Romania, Bulgaria and Poland. The (state aid) case of the Gdansk Shipyards in the year 2007 illustrates that a number of consequences of EU accession only became apparent after the accession: new rules of the game as far as it concerns the relationship between authorities and companies.

### **Maritime transport to and from NMS has grown strongly**

Maritime transport to and from the ports in the NMS increased more rapidly than in EU-15, as the figure below shows. This growth reflects the general growth in transport and trade in NMS in recent years, rather than the impacts of the implementation of the *acquis* in NMS.

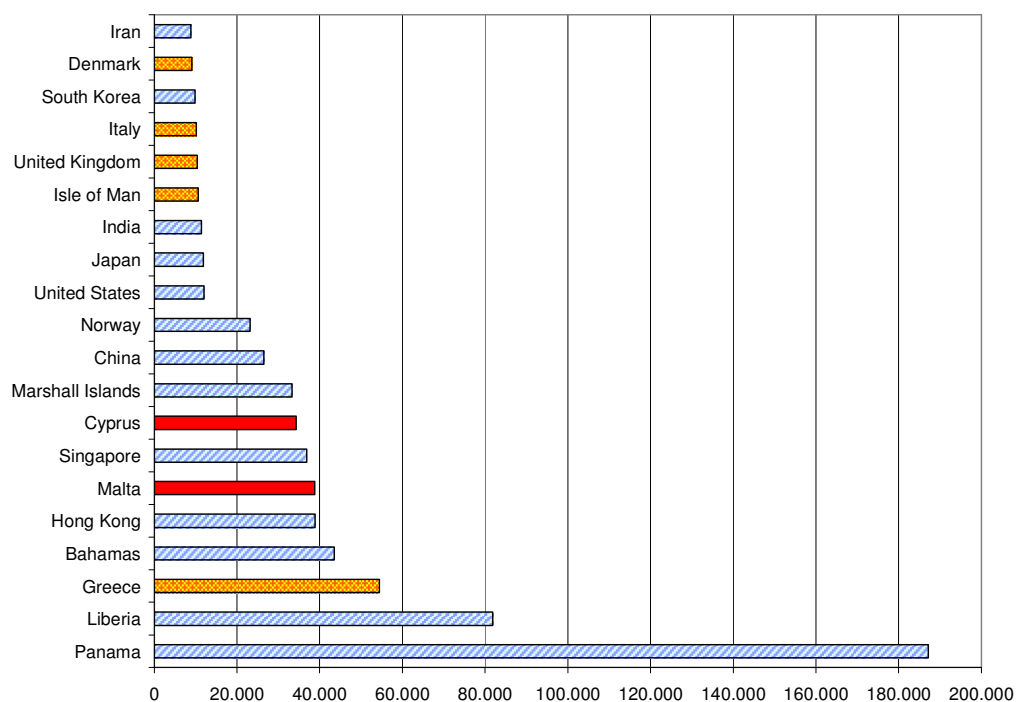


**Figure 15: Developments in freight turnover in EU seaports: Sums of tonnes handled in 70 seaports in EU-15 and 13 seaports in NMS.**  
(Source: Statistic Pocket Book Transport 2006)

A significant advantage to NMS-ports since accession is that international hinterland transport is without borders, particularly in road transport. This helped e.g. the Port of Koper (Slovenia) in attracting container services in connection with Germany and Austria. Furthermore, the NMS – like EU-15 – benefit from EU policies to promote motorways of the sea and intermodality, e.g. by Marco Polo subsidies to cover for risks of launching new services.

**With the accession of Malta and Cyprus, the fleet under EU flag grew by 50 per cent**

Malta and Cyprus were important players in the maritime world for some time before accession. They were both among the top ten most important merchant fleets (see Figure 16). The tonnage registered under other NMS flags is very low compared to EU-15 countries (approximately 2 per cent). With the accession of Malta and Cyprus, the European maritime fleet grew by approximately 50 per cent.



**Figure 16: Top 20 merchant fleet of the world, self-propelled oceangoing vessels 1,000 gross tonnes and greater as of 1 July 2004 (tonnage in thousands)**

### Labour market effects have been small

The international nature of the maritime industry makes that seafarers have always been in a good position to find employment on vessels with foreign ownership or flying foreign flags. An analysis of employment trends in maritime sectors<sup>33</sup> indicates that already in 1995 most of the vessels flying flags of EU Member States had high shares of non-EU-residents on board, particularly in lower personnel. This share since has been increasing. Statistics indicate a share of nearly 25% non-EU-residents in 2002, compared to about 20% in 1995. Especially Poland and the Baltic states have been important suppliers of competent seafarers.

The EU-accession removed some obstacles for hiring crew members from Eastern Europe, however any impact on labour mobility can not be proven. The situation today is still that there is a shortage of competent seafarers for EU-flags in most of the Member States, for which foreign workers – often non-EU - are recruited. Meanwhile in e.g. Poland, with a small merchant fleet, supply of qualified personnel in the maritime industry is abundant and growing, most of whom are finding employment on vessels other than from their own countries. Many also on flags of other EU countries.

<sup>33</sup> ECOTEC Research & Consulting (September 2006): An exhaustive analysis of employment trends in all sectors related to sea or using sea resources. Final report for the European Commission, DG Fisheries and Maritime Affairs

The enlargement implied that maritime companies from NMS were also moved towards the higher EU-standards of working conditions. This makes the maritime industry more attractive, however some reported a tendency of ship owners reconsidering flying EU-flags because of increasing labour costs.

However, there were a few instances in which the threat of displacement of EU-15 seafaring personnel by personnel from NMS led to conflicts. For instance, in Ireland in 2006 replacement of directly employed crew members at Irish Ferries by mostly Eastern European agency workers led to labour conflict.

#### **Malta and Cyprus are now on the white list of the Paris MoU**

Before the accession negotiations, Malta and Cyprus were both so-called open registry flag states, without high demands in terms of the age and state of vessels, quality of crew, safety measures, living conditions on board, etc. Inspections were few and of low quality. The quality of the Maltese and Cypriote fleets was poor, and Malta and Cyprus were on the black list of the Paris MoU. Hence the biggest challenge for Malta and Cyprus during their accession period was the implementation of the European Flag State Control Directive and their removal from the black list of the Paris MoU.

Through a number of measures they succeeded, and both Malta and Cyprus are now on the white list of the Paris MoU. In the years before accession, Malta and Cyprus have:

- Intensified Flag State Control by increasing the number and quality of inspections of ships. For instance, between 1998 and 2001, the number of inspections carried out by Cyprus increased from 166 to 593.
- Strengthened the registration criteria.
- Improved their administrative systems.

Because of the intensified Flag State Control, the size of the Maltese and Cypriote fleets has decreased by approximately 19 per cent and 17 per cent respectively, while for instance the Greek fleet grew by approximately 15 per cent in the same period. The Maltese and Cypriot fleets remain very important in spite of these relative decreases. Low-quality ships have had to leave the Maltese and Cypriote registers and new, high-quality ships have entered.

#### **Substandard ships may seek refuge in NMS-registers**

There are concerns that owners of substandard ships, which are no longer accepted in the Maltese and Cypriote registers, have found alternative registers in EU. For example, the Slovakian register had a fleet of less than 20 vessels in 2002, and a correspondingly small staff for enforcement of Flag State obligations. The fleet has now expanded to over 200 vessels. The frequency of detention under Port State Control of vessels flying the Slovakian flag is so high that Slovakia is on the Paris MoU blacklist. It



could not be confirmed whether the lacking enforcement was a consequence of a (temporary) lack of capacity and/or means of enforcement, or for other reasons.

#### **Port State Control intensified in NMS**

The transposition and implementation of the acquis caused Port State Control in the NMS to intensify. The system of Port State Control, already in place before the accession since all relevant NMS were already members of the Paris MoU, improved. Now there is not much difference between the enforcement in ports in the EU-15 or in NMS.

### **4.3.2. Aviation**

#### **The acquis for air transport<sup>34</sup>**

The acquis for air transport guarantees freedom of access to all air routes in the European Union to all companies which hold a Community licence. This Community licence can be obtained by air carriers, of which most capital is held by Member States or nationals of the European Union. The licence will be given after assessing the company's technical capabilities and financial capacities.

The core of the regulation in the acquis to facilitate a level playing field in aviation consists of rules on market access:

- Access to air routes for all Community passenger and cargo carriers;
- Procedures and criteria on licensing of air carriers;
- Mutual acceptance of personnel licenses;
- Harmonised technical requirements and administrative procedures;
- Equal treatment and charging for air traffic services;
- Rules for equal access to airport slots;
- Access to groundhandling services;
- A code of conduct for computerised reservation systems and non-discriminatory and transparent pricing;
- Protection of passenger rights, which includes rules of compensation and assistance to passengers if boarding is denied, flights are cancelled or severely delayed;
- Rules for air carrier liability in the event of accidents;
- Minimum insurance requirements of air carrier.

Apart from these rules to the air carrier industry the EU contributed to:

---

<sup>34</sup> A full overview of community legislation in the area of aviation can be found in the Guide to European Community legislation in the field of civil aviation of June 2007:  
[http://ec.europa.eu/transport/air\\_portal/internal\\_market/reference\\_en.htm](http://ec.europa.eu/transport/air_portal/internal_market/reference_en.htm)

- Creating a European Single Sky, with rules on the provision of navigation services, on the organisation and use of airspace and on the interoperability of air traffic management network.
- Common safety and security regulation. The rules for air carriers followed international codes, but on EU level enforcement via national civil aviation security quality control programmes was also specified, as were procedures for Commission inspections.

In the area of aviation safety, candidate countries were already familiar with the standards through membership of the International Civil Aviation Organisation (ICAO). However, also here, substantial legal and institutional changes were necessary. Community tools to cover economic policy, specifically the system of licensing and of slot allocation, were relatively new to the accession states.

Other themes which the acquis on air transport covers are relatively new and have not yet played a big role during the accession process. This is the case for e.g. security, passenger protection and air traffic management (ATM).

#### **Transitional Periods in air transport**

##### *Noisy aircrafts*

Both Lithuania and Hungary were granted a transitional arrangement as regards Directive 92/14/EEC for the phasing out of certain noisy aircraft. The transitional arrangement was granted to Hungary until the end of 2004 with respect to aircraft from certain third countries. The transitional arrangement was granted to Lithuania until the end of 2004 with respect to third-country aircraft at Kaunas International Airport.

#### **Technical Assistance was important in implementation**

The proper functioning of the administrative organisation is critical for the proper functioning of key safety aspects such as licensing of operators, certification and checking of crew and planes. Some candidate states have benefited from Technical Assistance projects creating a legal basis for key institutions such the civil aviation authorities and accident investigation bodies. For example, in Poland, the legal basis and the institutional structure were strengthened through a Twinning project resulting in amongst others:

- A new Civil Aviation Act, adopted in July 2002;
- Creation of a civil aviation authority;
- An independent accident Investigation body, functioning in 2002 with five permanent employees.

Although this is hard to prove, one may assume that the necessary restructuring of the administrative capacity in aviation has been an important trigger for liberalisation and sector investments.

### **Heavy investments in new aircraft<sup>35</sup>**

Safety standards in Europe have remained high since the accession, and noise levels due to air transport have dropped. An important reason for this is that CEE operators have invested heavily in new aircraft. Not only an economic but also a legal necessity since the EU legislation restricts the access of old (Russian/CIS) aircraft.

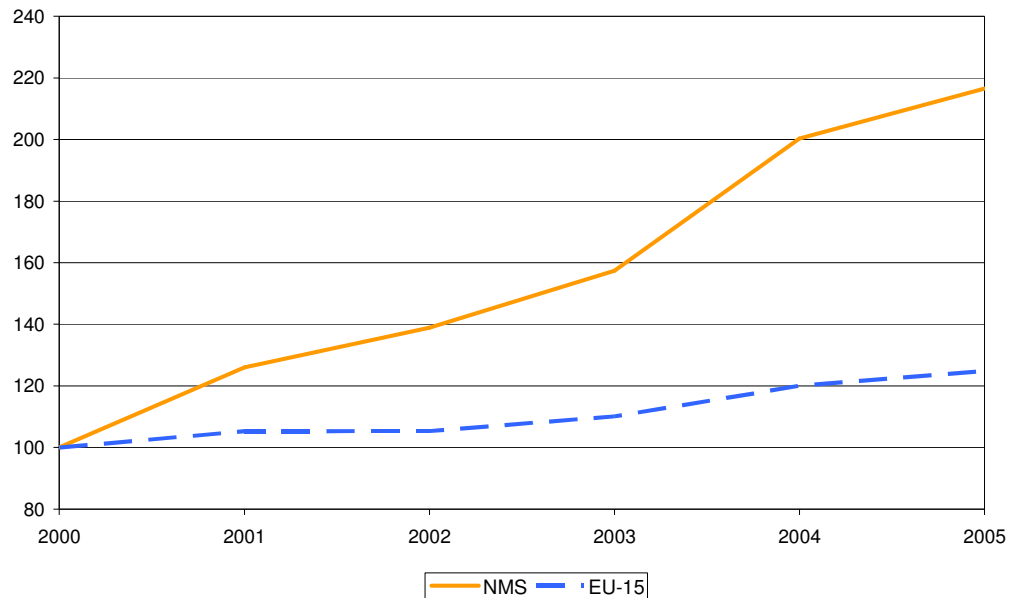
Malev, for instance, withdrew its last Tupolev in 2001 and has now phased out its old fleet completely. It now only flies with modern American, European and Canadian built aircraft, which entered operation in the period between 2002 and 2005. Also Czech Airlines is in the process of renewing its core European fleet, and placed an order in 2005 for six A319s and six A320s, with deliveries running through 2008. Also LOT Polish Airlines has ordered new planes: Seven 787-8s with options on seven 787-9s. Deliveries are scheduled from 2008 through 2010.

### **A level playing field for growth**

From 2000 onwards, there has been a steep growth of air transport in connection with all the NMS. Between 2000 and 2005, air traffic in NMS more than doubled, while the growth figure for the EU-15 was 25 per cent (see Figure 17). Not included in these statistics of NMS are Cyprus and Malta, which had growth figures comparable to EU-15.

---

<sup>35</sup> For the statistics on market developments in this section and the following sections we have drawn heavily on Cathy Buyck: 'Rising in the East', Air Transport World, May 2006.



**Figure 17: Development of air passenger traffic in EU-15 and NMS (2000=100)**  
(Source: Eurostat)

Airports in Central and Eastern Europe experienced an average 22.3 per cent increase in passenger traffic in 2005 compared to 2004. Growth has been especially strong in regional airports like Poznan, Cracow and Katowice, which had growth figures of 266.4 per cent, 95 per cent and 75.5 per cent respectively. The reason for this is that these airports are destinations for many low-cost carriers, who have been an important driver behind the growth in air transport.

While growth has been explosive, the level of air traffic in the eight NMS in Central and Eastern Europe remains far below the levels in EU-15. For instance, Poland, with a population of approximately 38.6 million, had 11.5 million air passengers embarking and disembarking at its airports last year. By comparison, the Netherlands, with less than half of Poland's population, had four times as many passengers passing through its terminals, while Spain with only 10 per cent more inhabitants had 181 million passengers.

#### **Low-cost carriers have taken a large share of the market**

The structure of the air transport market in the NMS in the pre-accession period was characterised by dominating national carriers. Apart from Malta and Cyprus, where air traffic was well developed, hardly any low-cost carriers were active. In the three Baltic countries, new national air industries were established in the 1990s.

Recently however, low-cost carriers (LCCs) have increased very strongly. With accession, restrictions through bilateral agreements limiting the number of flights, have

disappeared. LCCs have benefited greatly from this. The trend is however not limited to the NMS, but has spread all through Central and Eastern Europe. LCCs now have also launched services in Croatia, Bulgaria and Romania.

Local low-cost carriers, such as Wizz Air and SkyEurope, have sprung up several years before the actual accession (2003/2003). But also the major Western LCCs, such as Ryanair and easyJet, operate to CEE. This has meant fierce competition for the traditional flag carriers in the NMS, some of which have also entered the low-cost market with subsidiaries of their own; e.g. LOT with Centralwings.

The growth in the number of flights and the number of seats to/from Central and Eastern Europe (not limited to the eight NMS) in the low-cost sector were 39 per cent and 50 per cent respectively, between 2005 and 2006, while overall growth was 13 per cent and 15 per cent. The growth of LCCs in intra-CEE traffic is even more striking, with the number of scheduled low-cost seats being 401 per cent higher in 2006 than in 2005.

In Hungary, the effects of the accession and liberalisation are clearly visible in the number of seats on offer by different carriers. Flag carrier Malev experienced a constant number of seats on offer in the period 2003-2005, while other flag carriers from other countries in Hungary experienced a growth of approximately 20 per cent. The low-cost carriers (Wizz Air, easyJet, Sky Europe Hungary and Air Berlin, and later Ryanair) were not present in 2003, but by 2005, they had gained a market share of approximately 45 per cent. Together, the carriers other than Malev increased the seats on offer in Hungary by 100 per cent. These numbers suggest that the accession has strongly benefited air passenger choice.

#### **Liberalisation and privatisation now also recommend themselves in aviation**

Based on the experiences as described above and similar experiences in the EU-15 and the rest of the world, liberalisation of air transport is perceived to have large benefits. Hence some NMS did not need to be incited by accession to liberalise their air transport markets. In e.g. the Czech Republic and Latvia, the liberalisation process was already underway well before accession. But in Hungary, for instance, the accession seems to have speeded up liberalisation.

Also privatisation in the NMS of airport and airlines is well underway. The rapid growth necessitates new investments and more sophisticated know-how. Privatisation is an attractive option to bring in needed capital and know-how. Budapest Ferihegy was privatised in 2005 and is now owned by Hochtief Airport. In 2006, the Slovakian government sold 66 per cent of its shares in the Bratislava and Kosice airports.

Privatisation of flag carriers is also proceeding in the NMS. After repeated earlier attempts, Malev was privatised at the beginning of 2007. In 1999, the Polish

government supported the sale of 25.1 per cent of LOT's capital to SAirLines. The national airline of Estonia, Estonian Air, was privatised in 1996; SAS holds 49 per cent of its share capital. The Latvian state still controls 52.6 per cent of its national carrier airBaltic, yet SAS holds 47.2 per cent. Lithuanian Airlines was government-controlled until 2005, when it was privatised and sold to a group of Lithuanian investors.

### 4.3.3. Inland waterway transport

#### **The acquis for inland waterway transport**

The acquis for inland waterway transport is mainly related to the access to the market. It is based on the following principles:

- Carriers have the right to carry out transport operations between Member States, in transit through and in cabotage.
- Carriers must be able to provide proof of professional competence, i.e. necessary knowledge of law, adequate commercial and financial management, meet technical standards and operation, etc.
- Diplomas, certificates and other credentials are gradually harmonised.
- Inland waterway vessels will obtain a Community certificate if they comply with common technical requirements that are valid for all Community waterways, apart from the Rhine. The Rhine certificate covers all Community waterways, including the Rhine.

#### **Practical obstacles block the development of inland waterway transport in NMS**

The two main corridors in the inland waterway system connecting the EU-15 and NMS are:

- The Danube corridor, linking South-east Germany with the Black Sea, via Austria, Slovakia, Hungary, Serbia, Bulgaria and Rumania. The opening of the Main-Danube Canal in 1992 linked the Danube and Rhine waterway systems.
- The east-west corridor, connecting the Rhine via the North-German canal system with the Oder and Elbe and thus with Poland and the Czech Republic.

The inland waterway transport market in NMS had to deal with a severe crisis in the 1990s. The sector went through profound restructuring processes in the 1990s, when the few large state-enterprises were split up and privatised. Meanwhile, demand for inland waterway transport dropped, largely due to the economic transformation processes.

The upper Danube, Oder and upper Elbe have low water levels for long parts of the year, which makes economic operation difficult. Moreover, international traffic over the Danube was hindered by the Yugoslavia crisis (1992-1995). The destruction of the bridges in Novi Sad by NATO-bombing in 1999 again held back transport over the Danube until 2005.

Container traffic over the Danube has not developed. This is in contrast to container traffic in the Rhine basin, in which waterway transport of containers is very successful. Even under perfect conditions, the competitive position of inland navigation between the Black Sea and the upper Danube is not strong: Long navigation times mean that costs are not much lower than those of rail and road. Moreover, it is only recently that transshipment volumes of containers in Constantza have increased to levels which could justify viable barge services.

In recent years, the demand for inland navigation has been re-established, benefiting from economic recovery and from the removal of the blockade of the bridge in Serbian Novi Sad in 2005. The inland waterway transport demand now shows an increasing trend.

#### **Impact of enlargement has been small**

The impact of the enlargement of inland waterway transport appears to have been small so far. Because of the blockage of Danube traffic which has only recently been removed, it is possible that the effects of the enlargement are yet to happen. The cost levels of Danube operators are far below levels of Rhine operators, which keeps Rhine operators out of Danube traffic. Moreover, many Rhine vessels have deeper water draughts, which makes access to the more shallow rivers in the NMS more difficult. Likewise, the technical condition of most of the Danube fleet is not sufficient for Rhine traffic, which keeps NMS operators from the Danube states out of Rhine traffic. Many market actors, however, regard the required Rhine certificates as a means of market protection; they are not convinced there is any rationale behind the controlled access and consider Danube operators as sufficiently qualified for navigation on the Rhine.

The share of non-Danube flags in inner Danube traffic has hardly been affected by the opening of the market. There has been a slight reduction of the Austrian flag and solid shares of other central European countries in upper Danube traffic. The high shares of Ukrainian and Romanian flags dropped due to the Yugoslavia crisis and the following blockage. This share recovered, but not to former levels. The German and Dutch gained a share, due to bilateral traffic between upper Danube regions and Rhine regions.

Only in the traffic on the east-west corridor has there been a sharp increase in the share of Polish and Czech companies – also in cabotage – since 2004: Approximately 10 per cent of traffic is by Poles on the canals between the Rhine and Oder and Elbe. A trend which is being observed is that NMS companies buy second-hand barges from companies in Rhine states, which have sufficient technical quality to obtain Rhine certificates. The share of Polish and Czech operators in Rhine traffic is still very low.

Since the end of the 1990s, crews from particularly the Czech Republic and Poland have been employed in the inland waterway sector in the EU-15, mostly via temporary contracts, due to shortages in the home markets. In the Netherlands, the percentage of vessel crews from NMS has increased sharply over the past years, to a level of 25 per cent.



## 5. Conclusions and recommendations

### 5.1. Conclusions

The transport sector is vital for achieving several of the cornerstones of the European Union: The freedom of movement of persons and the freedom of movement of goods. The functioning of the transport sector within the EU is indicative of the degree to which integration has progressed. The adequate functioning of the transport sector is therefore of great importance.

The 2004 enlargement has been a success in the area of transport and has contributed in no small way to the integration of the NMS into the EU-15. Nevertheless, some qualifications must be made with regard to this success. The conclusions of this study regarding the successes and its imbalances are presented below.

- Traffic and transport between EU-15 and NMS has grown significantly. Between the time when accession negotiations started and 2005, many trade flows doubled. At some borders, the volume of traffic increased by 400 per cent in ten years. This increase is illustrative of the pace of integration of the NMS into the EU. There is no longer the need to speak of 'old' and 'new' Member States.
- The legal framework of the NMS is to a large extent aligned with the latest EU legislation. This is a great accomplishment, also taking into account that the volume of the Transport Acquis more than doubled between 1999 and the time of accession on 1 May 2004.
- Road transport in NMS, particularly international road transport, is developing from a limited state-owned, and subsequently extremely fragmented, industry into a professional logistics industry. NMS drivers have obtained very high shares of the transport in compared with EU-15, very often as low-cost subcontractors hired by EU-15 forwarders or as employees of EU-15 hauliers. Meanwhile, larger NMS companies have emerged and developed capabilities to also offer logistics services other than transport. This is partly due to the influence of demanding industries such as the automotive sector, which have now established themselves in the NMS.
- The increase of road traffic emissions has come to a halt, despite the vast increase in traffic volumes. This is due to the adoption of vehicle emission standards. Only emissions of carbon dioxide are still increasing, because of their direct relation with fuel consumption. Also road safety has improved despite increasing traffic (the gap between EU-15 and NMS fatality rates and practices is still wide, however).

- The standards of the maritime fleet of the EU have improved through stricter and better coordinated enforcement of international safety rules. Flag State Control and Port State Control are being enforced in all EU countries and best practices are being exchanged. This has contributed to the upgrading of particularly the fleets of Malta and Cyprus, both principal registers for maritime shipping. Skilled workers of NMS have contributed to the competitive strength of the EU in maritime transport and inland waterway navigation.
- Accession has been a catalyst of the liberalisation of air transport in NMS, which has been an important facilitating factor in the explosive growth in air transport that has taken place: Air transport more than doubled in the period between 2000 and 2005. Low-cost carriers have entered the market and have taken market shares up to 50 per cent, increasing travel options for NMS citizens at affordable prices. Aviation safety has remained at a high level in the EU after accession and noise levels have dropped, because NMS operators have replaced their old, outdated aircraft with new, modern planes. The renewal was initiated by EU standards as well as trans European co-operation of carriers.
- Notwithstanding substantial dynamics and reorganisations in the road, aviation and particularly railway transport sectors, no major social conflicts have arisen. Economic growth and the related growth in employment opportunities have taken the edge off certain social threats.
- Already in the pre-accession years, workers in NMS were employed in the EU-15 in the road, maritime and inland waterway transport industries, which suffered from (threats of) labour shortages. These flows are gradually disappearing, since opportunities and working conditions in the NMS have considerably improved.
- NMS that followed a strategy of early market opening were in general more successful in attracting foreign investments in transport services and industry compared to candidate countries that showed more reluctance. With the exception of Poland the size of the domestic market has usually not been the trigger for an investment decision. This was rather the availability of skilled workers, the absence of bureaucracy, in combination with opening of the markets.

The success of the 2004 enlargement has also been unbalanced:

- The enlargement process has focused too much on legislation, while ignoring the establishment of effective institutional and organisational structures that ensure its application and enforcement. This process was exacerbated through the substantial growth of the Transport Acquis during the negotiation process and the pressure to

report on completed transposition of the acquis that would result in a limited need of Transitional Periods.

- NMS felt an intense political pressure to transpose rules although they did not always know their consequences. Too little time was devoted to the development of national transport strategies to which legislation could be aligned. Also, communication between public bodies and the transport sector was lacking. Finally, enforcement is not up to standard for parts of the acquis. This means that the level playing field – the main aim of European legislation – is no more than a paper reality for certain issues.
- Skills to manage the process of change have been insufficient in many ministries in the NMS, mainly as a result of budget constraints. This is still often felt in e.g. the management of large investment funds for transport. Ministries often appear to have difficulties preserving a high-quality workforce. Capacity building and retention of skilled staff need continuous attention.
- The railway transport sector is in an extremely vulnerable position. This is despite a starting position in the NMS with a high modal share of rail freight and passenger transport. The equity capital of railway companies in NMS is only approximately one seventh of what it was ten years ago, while debt is now almost five times as high. Investments in infrastructure and rolling stock are lagging. This is because of, for instance, a lack of public funding of infrastructure and rolling stock, and deficient funding of Public Service Obligations. Disproportionate charging for infrastructure now deters the development of freight transport by rail in NMS. Nearly all NMS have among the highest charges for freight users in Europe. Many NMS lack long-term, strategic plans on the future of their railways. White paper policies have raised expectations for railways, but the application of the acquis in railways has not yet been fully completed in many NMS, and will in itself be insufficient to revitalise the railway industry in NMS.
- The development of intermodal transport has been disappointing. Expectations of actors and public officials in NMS and EU were high, but many intermodal transport services, particularly rolling highways, collapsed. Apparently, these services relied heavily on former institutional barriers in road transport (i.e. quota systems), and now cannot compete with road transport because of high railway access charges.
- The developments in inland waterway transport have been unsatisfactory. With the enlargement, the waterway system of the Rhine, Danube and Main-Danube Canal – linking the North Sea to the Black Sea – is now almost entirely in the EU. All vessels in the EU now have unrestricted access to the Danube. Yet inland waterway transport continues to play only a very marginal role in the NMS.

- The rapid growth in road transport and traffic causes fast-growing carbon dioxide emissions, as well as increased congestion and pressures on ecology and cultural heritage.
- The Transitional Periods granted were limited in scope and number, although progress reports published shortly before accession reveal several shortcomings in alignment. Transitional Periods seem to have been the result of a negotiation process rather than an assessment of the situation in real life. As Transition Periods needed to be included in Accession Treaties at least one year before accession, they could not reflect the situation in real life. After accession, not much has been done on follow up of both Transitional Periods and other 'outstanding issues' which were not yet fully in line with the *acquis*.

## 5.2. Recommendations

### For future enlargements:

- Pressure to focus on quick transposition of legislation should be decreased, and more time should be devoted to its application. The Commission and existing Member States can facilitate this through a comprehensive 'transport sector review':
  - This review should be carried out annually as from the moment that the negotiations start and make visible the steps to be taken for implementation of the *acquis communautaire* within the acceding country. The review should be performed by an independent organisation and present the progress in all areas of transport. The review should then be validated through peer reviews by Commission and Member State staff. The review should also comprise extensive contacts between administrations of Member States and the sector to communicate and discuss impacts of enlargement on market actors.
  - Transitional Periods should be allowed for, under the condition that they are based on the transport sector review. The Accession Treaty should allow for an addendum that lists implementation constraints identified shortly (e.g. 6 months) before accession. These implementation constraints cannot be a reason for postponement of accession but can be a reason for temporary exclusion from certain markets/benefits (as was done in the case of BG with the aviation market).
  - The granting of TPs should be conditional on an action plan in which steps for preparing for the new conditions are defined. The TPs should be subject to monitoring and support by the EC and individual Member States also after the accession. The TPs should always be temporary, no 'Europe à la Carte'.
  - The transport sector review should also be the basis for determining the necessity of additional Technical Assistance in certain areas. Technical

Assistance should be strongly encouraged if the necessity has been shown through the review.

- The effectiveness of Technical Assistance can be increased provided that
  - Accession States show commitment for project implementation, have an open mind towards weak aspects of current organisations and secure a consistent environment of the project (political, staff) and focus on concrete results.
  - Program and project management should be less bureaucratic, more flexible and result driven. Involvement of government staff (Commission, Member States) that possess know how of the content is crucial. In tender processes quality of staff and their commitment should prevail over the prices of services as a criterion for selection.
  
- The Commission and existing Member States should better assist candidate countries in developing a transport strategy and policy of their own. This will make them better capable of prioritising their investments and the allocation of political and administrative attention.
  
- Normally, the benefits for existing Member States of the accession of new Member States (resulting from increasing traffic flows and new business opportunities) will outweigh some disruptive effects due to increased competition. Hence existing Member States should only institute Transitional Periods when they have legitimate worries about the capacity of accession states to transpose and implement relevant parts of the acquis, and if this poses a serious threat to a level playing field and fair competition within the internal market.
  
- The Commission should put more effort in consolidating and simplifying the Transport Acquis in order for it to become a more coherent body of legislation that is easier to transpose into national standards. NMS should in general approach the EU legislative framework more as an opportunity rather than a threat or a 'stand alone' legislative task.
  
- The Commission should systematically evaluate the effectiveness of granted Technical Assistance in order to learn about the most effective and efficient means to deliver support. Now evaluation only takes place at a project level and only focuses on the financial/management part of the project.

**For further integration of NMS into the EU-27:**

- A comprehensive action package is required to solve the financial and organisational problems in the railway and local public transport sectors. Implementation of the community acquis is insufficient to ensure fulfilment of White Paper ambitions in the area of railways. Targeted research and impact assessments should make visible how the investment climate for railways can be improved and

how contracting of public services can be improved in order to tailor more sustainable public transport systems.

- A level playing field in transport has not been established yet. NMS railway operators suffer from disproportionate infrastructure charges. Public passenger transport is not sufficiently compensated for Public Service Obligations. Road freight operators, particularly in the Old Member States, may face unpredictable and multi-technology systems of road charges. Whether or not aviation services are charged for emissions and/or noise depends on initiatives of national governments or even individual airports. Member States and the Commission should focus more on uniform application of existing standards and cooperation in checking and enforcement through Twinning and active membership in organisations, such as TISPOL (European Traffic Police Network) and ECR (Euro-Contrôle Route). The practice of maritime shipping shows that a continuous effort to cooperate in tasks such as Flag State Control and Port State Control is effective in increasing the safety of the EU fleet and EU seas. Introduction of similar common enforcement regimes in other transport modes will improve safety, security and social and contribute to a level playing field.
- The design and promotion of the use of intelligent transport solutions, which use resources productively, need more effort. Transport users and operators in nearly all Member States, old as well as new, are increasingly facing capacity constraints in infrastructure.

## Glossary

Accession	: The moment that New Member States officially joined the EU: 1 May 2004
Acceding countries	: The New Member States before the moment of accession but after signature of the Accession Treaty (2003)
Acquis (communautaire)	: Total body of EU legislation
Approximation of acquis	: See Transposition of acquis
Candidate countries	: The New Member States before signature of the Accession Treaty (2003)
CEEC	: Central and East European Countries
Enlargement	: Accession of New Member States and the processes of preparation (both within the New and Old Member States) before the accession
EU-15	: Countries that were already part of the European Union before 1 May 2004: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Ireland, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom
EU-27	: European Union at present: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Greece, Italy, Ireland, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom
Implementation of acquis	: Process of administrative and business efforts for ensuring that the adopted EU legislation is applied and enforced in practice

New Member States	: Countries that joined the European Union on 1 May 2004: Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia
NMS	: New Member States
Old Member States	: See EU-15
Public Service Obligation	: Obligation of a government to compensate a party of which it demands certain public services (e.g. public transport services) for the part that cannot be exploited viably
Transitional Period	: Period after accession in which a Member State (usually the newly acceded Member State) does not have to comply with a designated part of the acquis
Transposition of Acquis	: Adoption of EU legislation into national legislation



## Sources<sup>36</sup>

### Literature:

- Baur, Johannes (2004): Europäische Verkehrspolitik: Zu Lande, zu Wasser und in der Luft. In Ost Europa 5-6/2004
- Bundesamt für Güterverkehr (2006): Sonderberichte Marktbeobachtung Güterverkehr  
[www.bag.bund.de/cln\\_004/nn\\_46266/DE/Bestellungen\\_Downloads/Download/Veroeffentlichungen/Marktbeobachtung/Sonderberichte/sonderberichte.html](http://www.bag.bund.de/cln_004/nn_46266/DE/Bestellungen_Downloads/Download/Veroeffentlichungen/Marktbeobachtung/Sonderberichte/sonderberichte.html)
- Buyck, Cathy (2006): 'Rising in the East', Air Transport World, May 2006.
- ECOTEC Research & Consulting (September 2006): An exhaustive analysis of employment trends in all sectors related to sea or using sea resources. Final report for the European Commission, DG Fisheries and Maritime Affairs
- European Commission, DG Enlargement (2004): Report on the results of the negotiations on the accession of Cyprus, Malta, Hungary, Poland, the Slovak Republic, Latvia, Estonia, Lithuania, the Czech Republic and Slovenia to the European Union  
[ec.europa.eu/enlargement/archives/pdf/enlargement\\_process/future\\_prospects/negotiations/eu10\\_bulgaria\\_romania/negotiations\\_report\\_to\\_ep\\_en.pdf](http://ec.europa.eu/enlargement/archives/pdf/enlargement_process/future_prospects/negotiations/eu10_bulgaria_romania/negotiations_report_to_ep_en.pdf)
- European Commission, DG ECFIN (2006): Enlargement, Two Years Later: An Economic Evaluation  
[ec.europa.eu/economy\\_finance/publications/occasional\\_papers/2006/ocp24en.pdf](http://ec.europa.eu/economy_finance/publications/occasional_papers/2006/ocp24en.pdf)
- European Commission, DGTREN (2005): ENTRANCE Country Monographs
- European Commission, DG TREN (2001): White Paper - European Transport Policy for 2010: Time to Decide.  
[ec.europa.eu/transport/white\\_paper/documents/doc/lb\\_texte\\_complet\\_en.pdf](http://ec.europa.eu/transport/white_paper/documents/doc/lb_texte_complet_en.pdf)
- European Commission, DGTREN: Communication (2006)314: Keep Europe Moving - Mid Term Review of 2001 Transport White Paper  
[ec.europa.eu/governance/impact/docs/ia\\_2006/com\\_2006\\_0314\\_en.pdf](http://ec.europa.eu/governance/impact/docs/ia_2006/com_2006_0314_en.pdf)
- European Commission, DGTREN (2004): Repertoire of the acquis communautaire, energy and transport, 31 December 2004  
[ec.europa.eu/dgs/energy\\_transport/acquis/acquis\\_energy\\_transport\\_en.pdf](http://ec.europa.eu/dgs/energy_transport/acquis/acquis_energy_transport_en.pdf)
- European Commission, DGTREN (2006): Statistical Pocketbook Transport 2006.  
[ec.europa.eu/dgs/energy\\_transport/figures/pocketbook/2006\\_en.htm](http://ec.europa.eu/dgs/energy_transport/figures/pocketbook/2006_en.htm)
- European Commission (2007), DGTREN (2007): Impact Assessment of legislative proposals on the access to the occupation and the access to the market, SEC(2007) 635/2

---

<sup>36</sup> For the preparation of the case studies, various additional sources have been consulted and additional interviews have been conducted with experts and officials. These are listed together with the case studies which are available as an Annex to this report.

- European Parliament (1999): Transport and Enlargement.  
[www.europarl.europa.eu/EST/download.do?file=4733#search=%20transport%20enlargement%20](http://www.europarl.europa.eu/EST/download.do?file=4733#search=%20transport%20enlargement%20)
- Halcrow Fox/NEI (1999): Costs and Benefits of Enlargement.  
[www.iccr-international.org/research/projects/cbet.html](http://www.iccr-international.org/research/projects/cbet.html)
- Hille, Peter and Christoph Knill (2006): The implementation of the acquis communautaire in EU candidate countries 1999-2003, SAGE publications.
- ISI c.s. (2006): COMPETE, Analysis of the contribution of transport policies to the competitiveness of the EU economy and comparison with the United States  
[www.isi.fhg.de/projects/compete/index.htm](http://www.isi.fhg.de/projects/compete/index.htm)
- NEA c.s. (2005): ERAIL, European Railway Institutions and Legislation.  
<http://ec.europa.eu/transport/rail/countries/erail-report-jun2005.pdf>
- NEA (2006): Selected recent statistics on road freight transport in Europe.  
See: <http://www.iru.org/index/bookshop-display-action?id=100>
- TML c.s. (2005): ASSESS - Assessment of the contribution of the TEN and other transport policy measures to the midterm implementation of the White Paper on the European Transport Policy for 2010  
[www.tmleuven.be/project/assess/2005\\_10\\_28\\_assess\\_final\\_report\\_en.pdf](http://www.tmleuven.be/project/assess/2005_10_28_assess_final_report_en.pdf)
- Steer Davies Gleave (2005): RAILIMPLEMENT – Implementation of EU Directives 2001/12/EC, 2001/13/EC and 2001/14/EC.  
[ec.europa.eu/transport/rail/studies/doc/railimplement.pdf](http://ec.europa.eu/transport/rail/studies/doc/railimplement.pdf)

#### Websites:

- [ec.europa.eu/transport/](http://ec.europa.eu/transport/)
- [ec.europa.eu/enlargement/](http://ec.europa.eu/enlargement/)
- [epp.eurostat.ec.europa.eu/](http://epp.eurostat.ec.europa.eu/)
- [www.cemt.org](http://www.cemt.org)
- [www.unece.org/trans](http://www.unece.org/trans)
- [www.iru.org](http://www.iru.org)
- [www.cer.be](http://www.cer.be)
- [www.tremove.org](http://www.tremove.org)

#### Interviews:

- Richard Mason (European Commission, DG Energy and Transport) (13-3-2007)
- Johannes Baur (European Commission, DG Energy and Transport) (13-3-2007)
- Anja Lubenau (European Commission, DG External Relations) (13-3-2007)
- Detlev Boeing (European Commission, DG Enlargement) (13-3-2007)
- Oleg Kamberski (IRU) (19-3-2007)
- Ad Toet (CER) (19-3-2007)
- Peter Wolters (European Intermodal Association) (19-3-2007)
- Jan Scherp (European Commission, DG Energy and Transport) (29-5-2007)
- Felix Leinemann (European Commission, DG Energy and Transport) (29-5-2007)
- Paul Murphy (European Commission, DG Energy and Transport) (29-5-2007)