The Impacts of the 2004 Enlargement
in the Area of Transport

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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[1]. 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[2] and implement[3] 'old' legislation, but also had to keep up with newly accepted legislation. Hence conforming to the Transport Acquis can be compared to 'catching a

[1] The total body of EU legislation.
[2] Adopt EU legislation into national legislation.
[3] 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[4] granted on 1 May 2004 were limited in number and scope.[5]

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

[4] 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.
[5] 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 á 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 then 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[6]. 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.

[6] 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”.[7]

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

1. Railway sector reform in the Baltic States
2. Development of road safety, in particular in Hungary and Latvia
3. Development of the market for air carriers (Hungary, Latvia)
4. Strategic position of road transport and combined transport in Hungary
5. Alteration of the public transport system in Hungary
6. Implementation of Port State Control in Poland
7. Integration of Polish road transport into EU market
8. Railway sector reform in Poland
9. Implementation of a road inspectorate in Poland
10. Development of the logistics industry in the Czech Republic
11. Implementation of Flag State Control in Malta and Cyprus
12. Freight transport in the Danube Corridor
13. The development of railway finances and financing
14. Reduction of road transport emission levels due to fleet renewal

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

[7] 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.[8] 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.

[8] 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 [9]: 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 [10]
1993	Copenhagen Summit: EU Member States establish "Copenhagen Criteria" [11]
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 [12]
1995	Commission White Paper on the integration of the CEECs into the internal market of the EU

[9] 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.
[10] Cyprus already had an Association Agreement since 1972, and Malta since 1971.
[11] 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.

[12] 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[13]
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

[13] 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.[14] 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).[15]

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 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

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

[15] Repertoire 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).

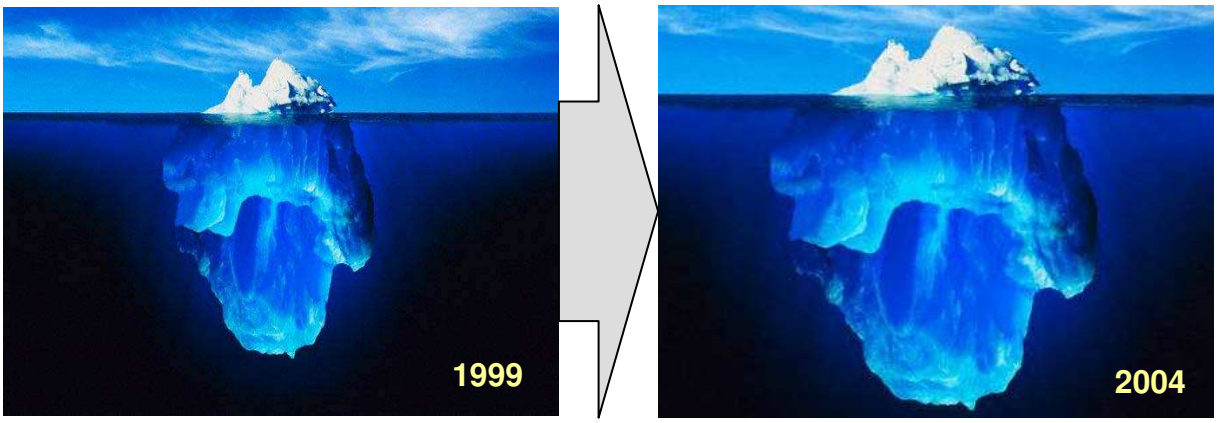

Figure 1 The growth of the acquis as a growing iceberg

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:[16]

- 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);

[16] 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". [17]

Progress reports: The examples of Poland and the Czech Republic

[17] 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.

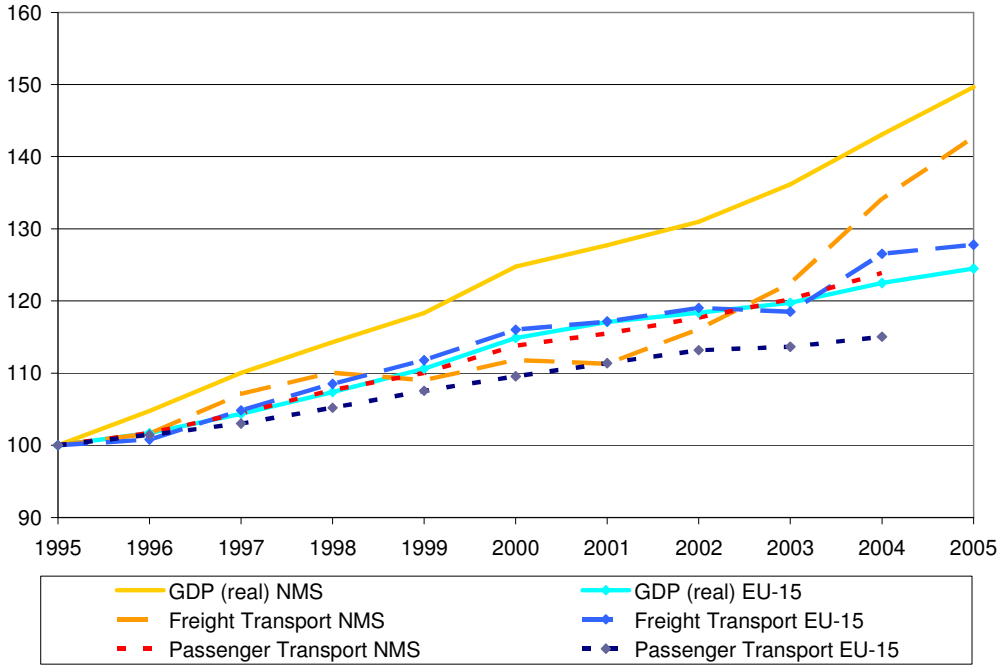

Figure 2 Development of real GDP and development of freight and passenger transport in NMS and EU-15 (1995=100) (Source: Eurostat)

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.

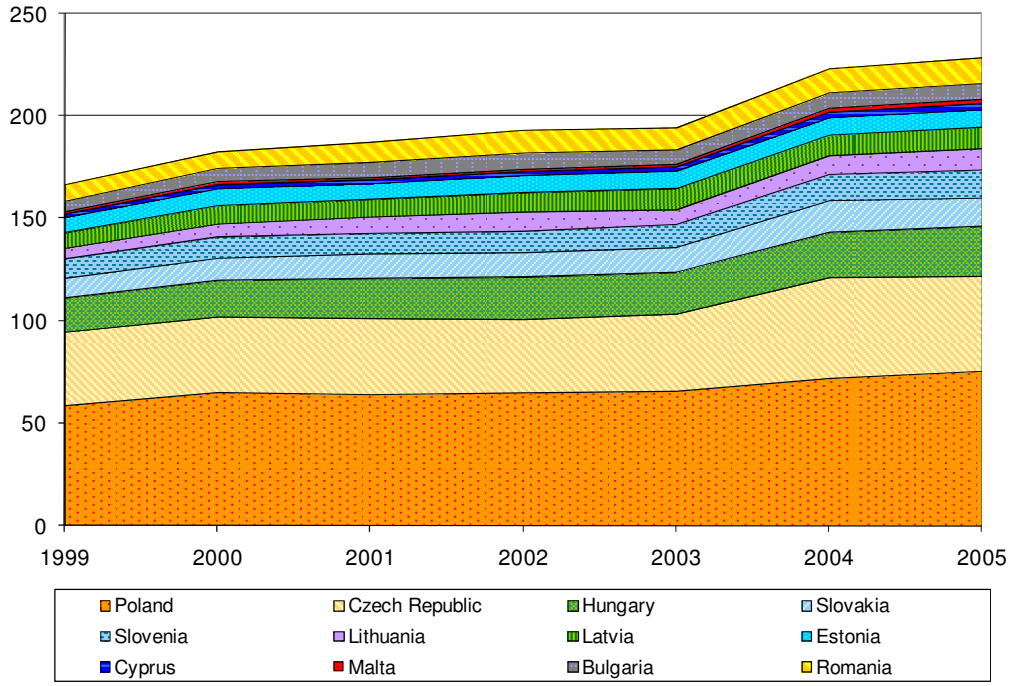

Figure 3 Development of trade flows (import + export) between EU-15 and NMS, in million tonnes (Source: COMEXT, Eurostat)

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.[18]

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

[18] 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.[19]

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.

[19] European Commission, DG ECFIN (2006*): Enlargement, two years after: an economic evaluation*. Brussels

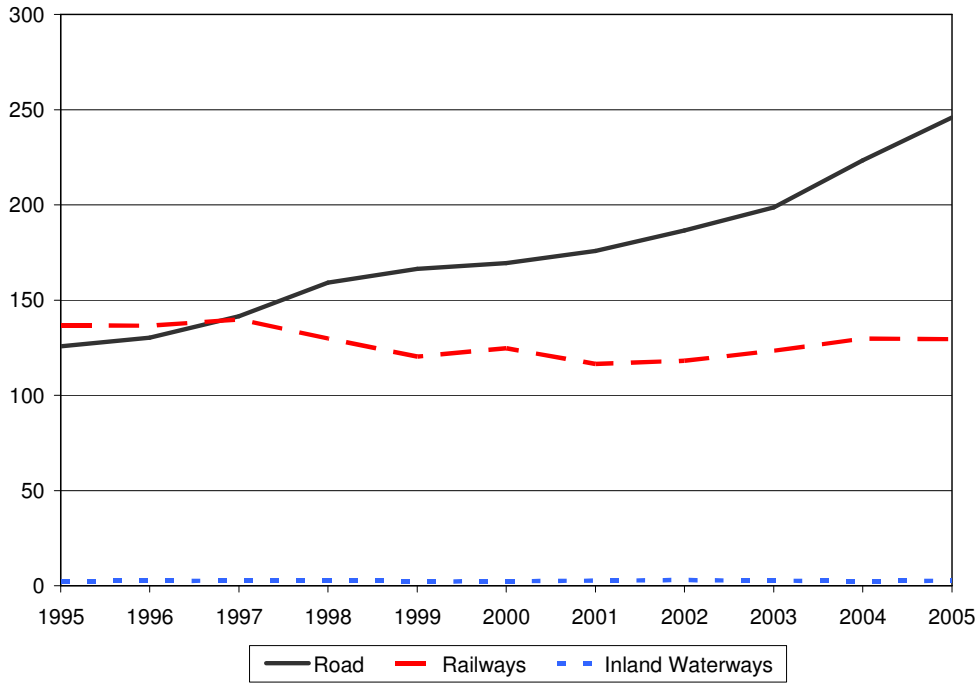

Figure 4 Development of freight transport by road, railway and inland waterway transport in 1000 million tonne-kilometres (Source: Statistical Pocketbook Transport 2006)

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.

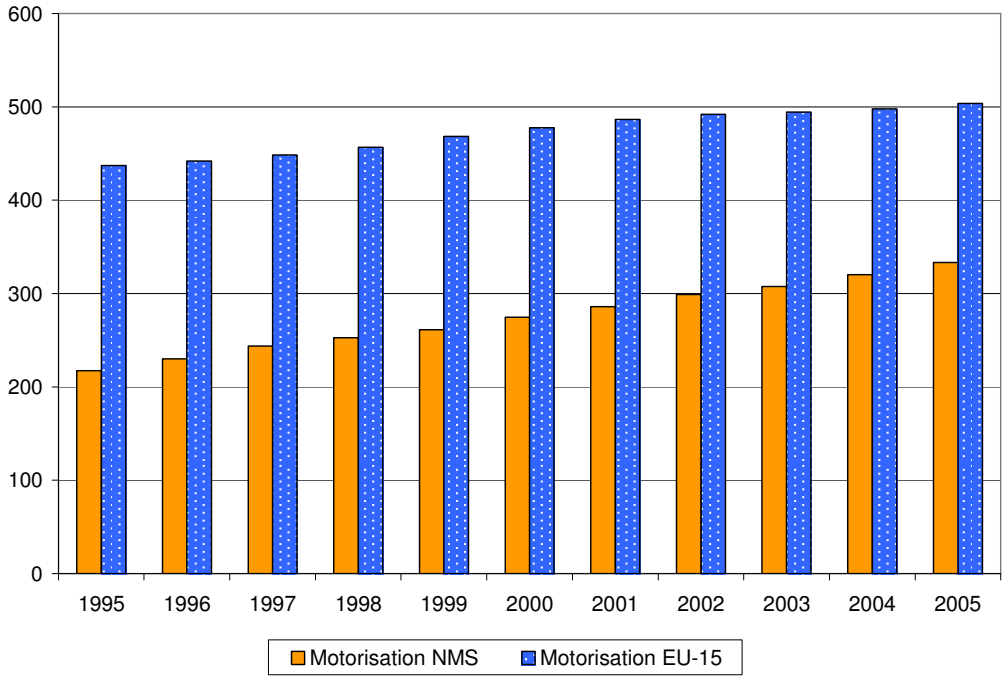

Figure 5 Development in number of cars per 1000 inhabitants (motorisation) in NMS and EU-15 (Source: Eurostat and Statistical Pocket Book Transport 2006)

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.

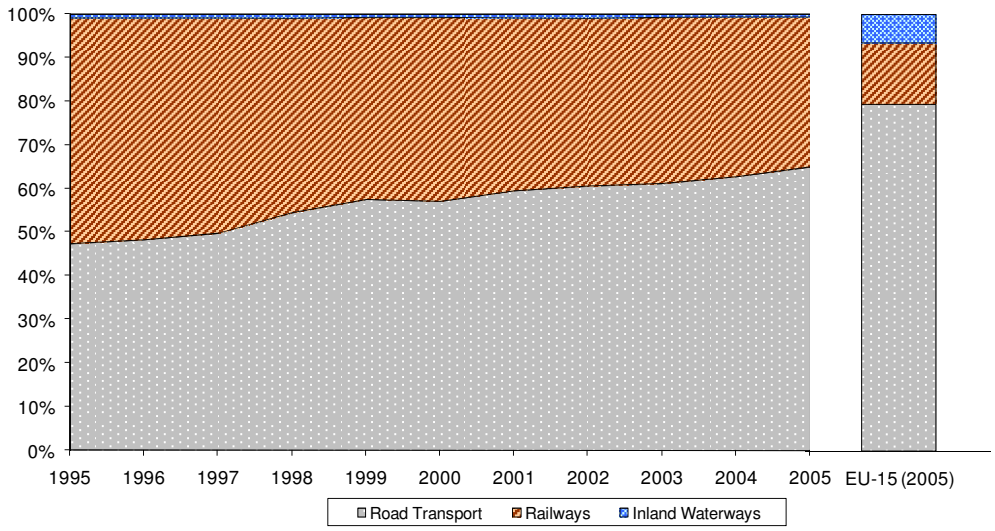

Figure 6 Development in modal split in surface freight transport in NMS (Source: Statistical Pocket Book Transport 2006)

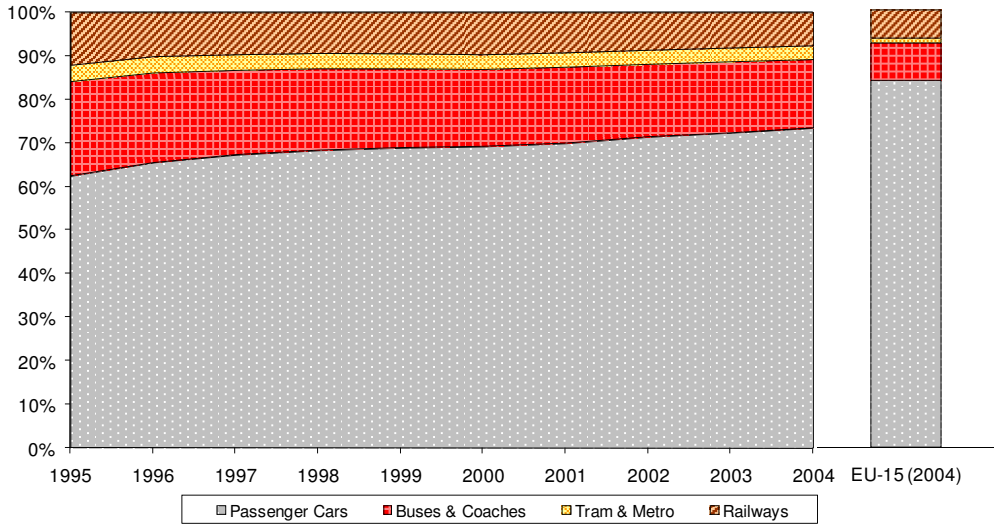

Figure 7 Development in modal split in passenger transport in NMS (Source: Statistical Pocket Book Transport 2006)

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 km2). 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.[20]

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

[20] The total motorway network in the EU-15 is approximately 55,000 kilometres, given a surface area of approximately 3,236,000 km2. 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[21] 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;

[21] 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.

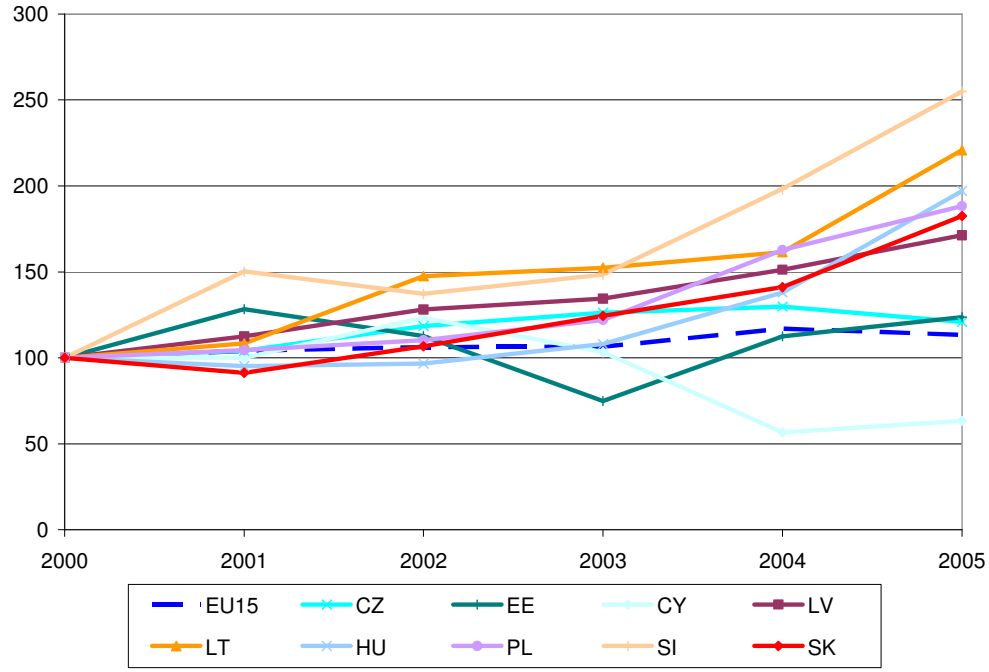

Figure 8 Development international road haulage (2000=100) (Source: Statistical Pocket Book Transport 2006)

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[22]. 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.[23]

[22] International Road Freight Transport (Halcrow Fox/ NEI: Costs and Benefits of Enlargement (CBET), 1999).
[23] 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.

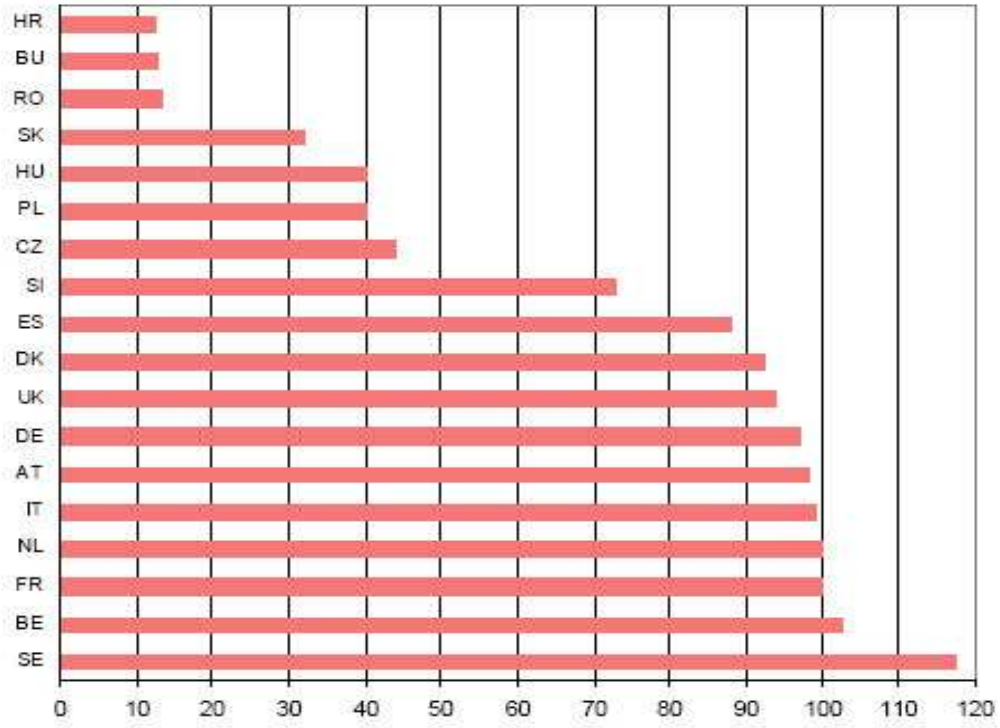

Figure 9 Country differences in labour costs of road haulage in 2005 (Source: European Commission (2007): Impact assessment of legislative proposals on the access to the occupation and the access to the market, SEC(2007) 635/2)

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.[24] 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.

[24] 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.[25] 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.

[25] Based on CARE-data (European road accident database)

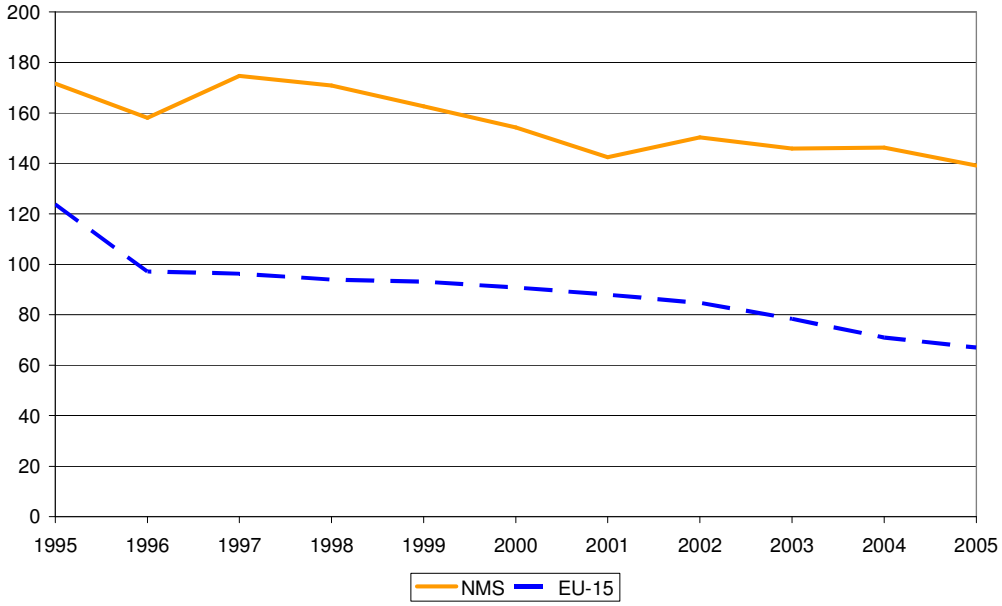

Figure 10 Development of the number of casualties in road traffic per million inhabitants in NMS and EU-15 (Source: CARE (EU road accident database))

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.

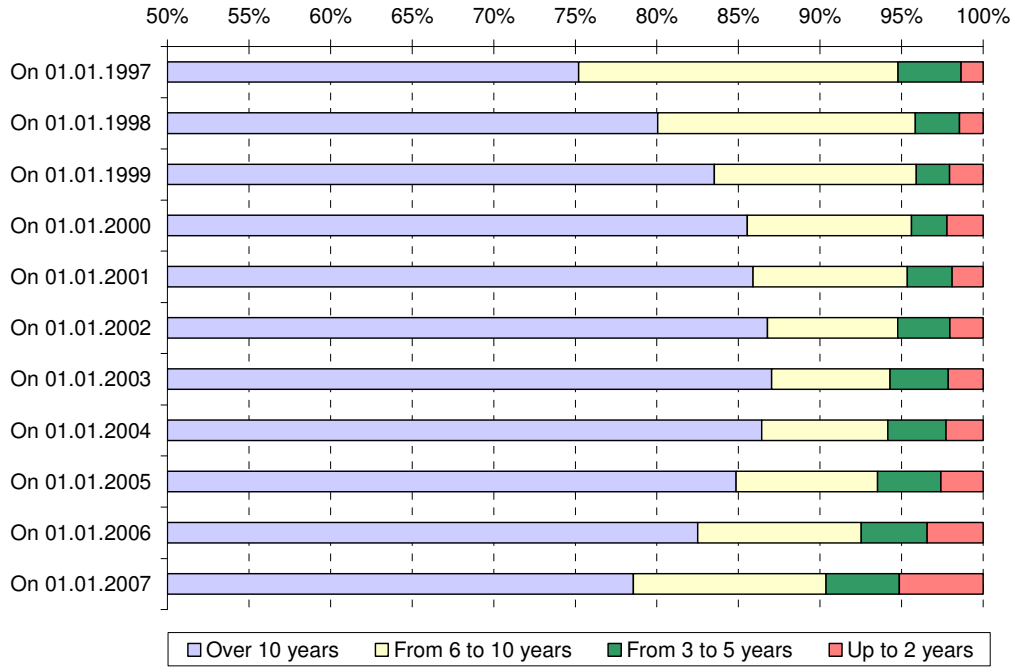

Figure 11 Development of age distribution of vehicle stock for cars in Latvia (Source: Ministry of Transport, Latvia)

In Poland, the trend of increasing emissions is bending for particle matters (PM), carbon monoxide (CO), sulphur dioxide (SO2) and volatile organic components (VOC) and nitrous oxide (NOx). Model runs forecast an imminent decline of these emissions (see Figure 12). However, emissions from carbon dioxide (CO2) 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.

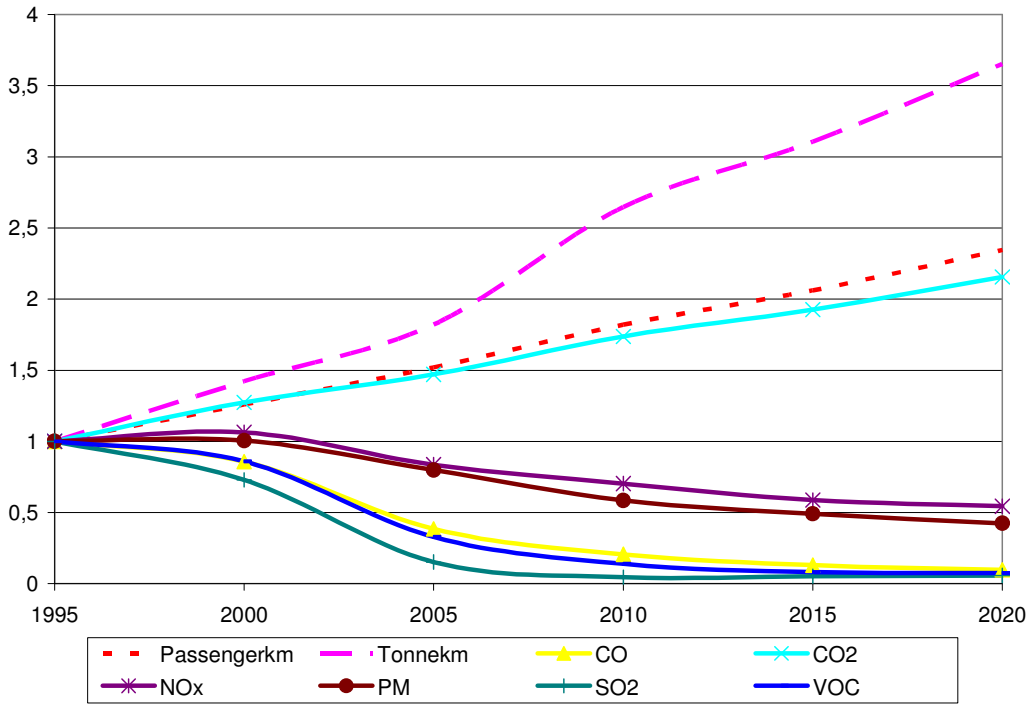

Figure 12 Development of emissions and transport volumes in Poland (1995=1) (Source: TREMOVE)

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"[26] and the preceding legislation of the 1990s.[27] Important elements are:

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

[26] Directives 2001/12, 13 and 14

[27] 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.[28]

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[29], and must compensate companies for public services that it considers to be socially desirable but which cannot be exploited with an adequate return[30].

[28] Directives 96/48 and 2001/16
[29] Directive 91/440 on the development of the Community's railways, art. 9.
[30] 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[31] 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.

[31] 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.

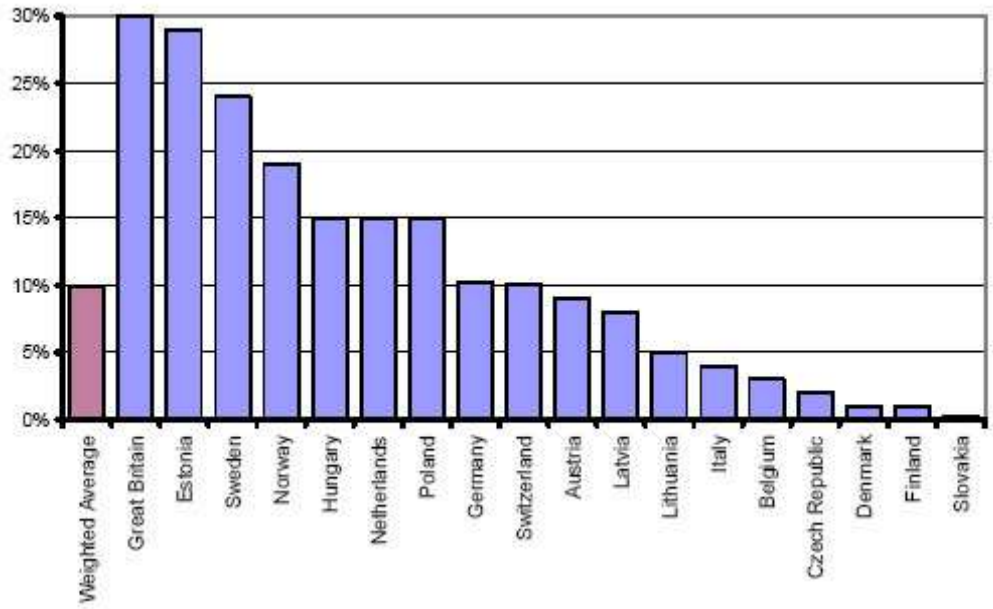

Figure 13 Market share in TKM not held by the largest operator in countries with more than one operator (Source: Steer Davies Gleave: Railimplement (2005))

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 loosing 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.[32]

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.

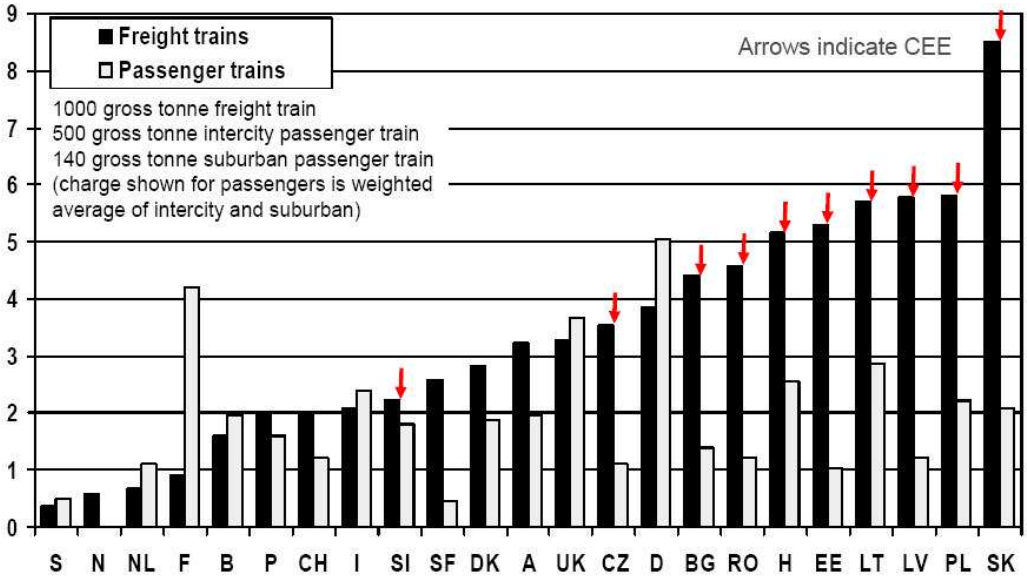

Figure 14 Average access charges in 2004 (euro/train km, excluding cost of electric traction)
(Source: Taken directly from ECMT (2005): Railway Reform and Charges for the Use of Infrastructure)

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

[32] 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 disappeard 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 reliablity 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 undiscriminatory 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.

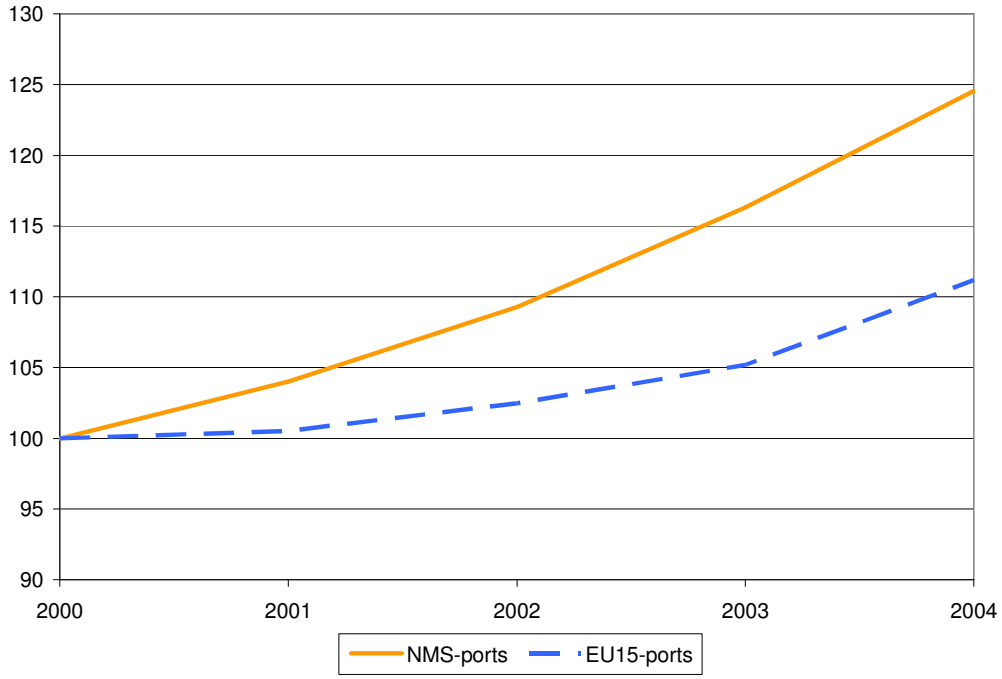

Figure 15: **Developments in freight turnover in EU seaports: Sums of tonnes handled in 70 seaports in EU-15 and 13 seaports in NMS. (Source: Statistic Pocket Book Transport 2006)**

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 intermodalility, 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.

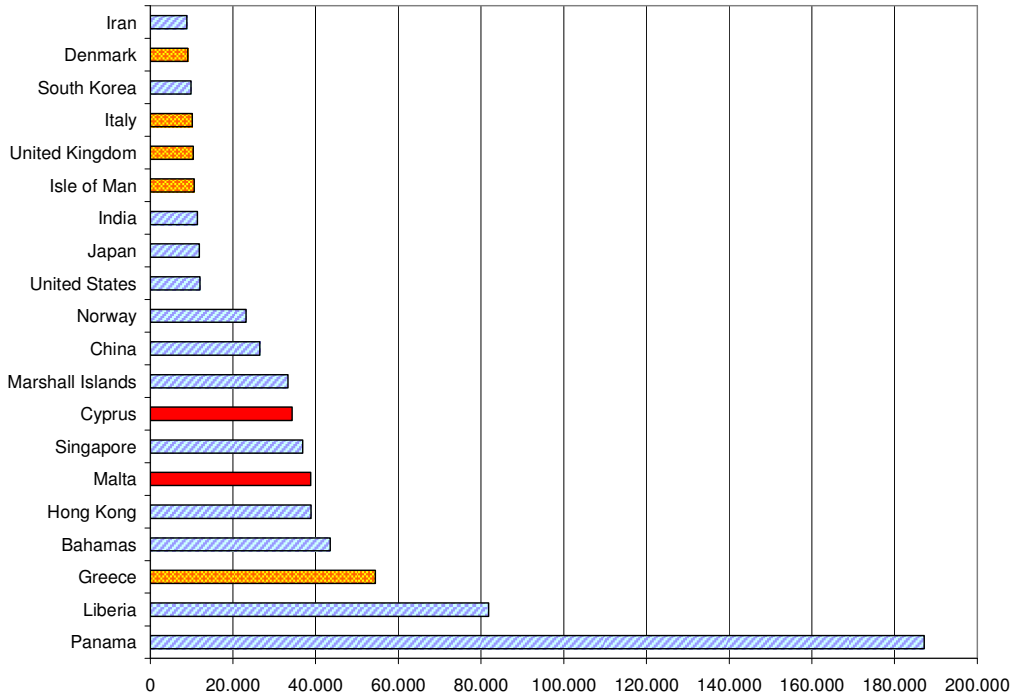

Figure 16: Top 20 merchant fleet of the world, self-propelled oceangoing vessels 1,000 gross tonnes and greater as of 1 July 2004 (tonnage in thousands)

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[33] 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.

[33] 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 form 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[34]
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:

[34] 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

- 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[35]

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 (Russion/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.

[35] 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.

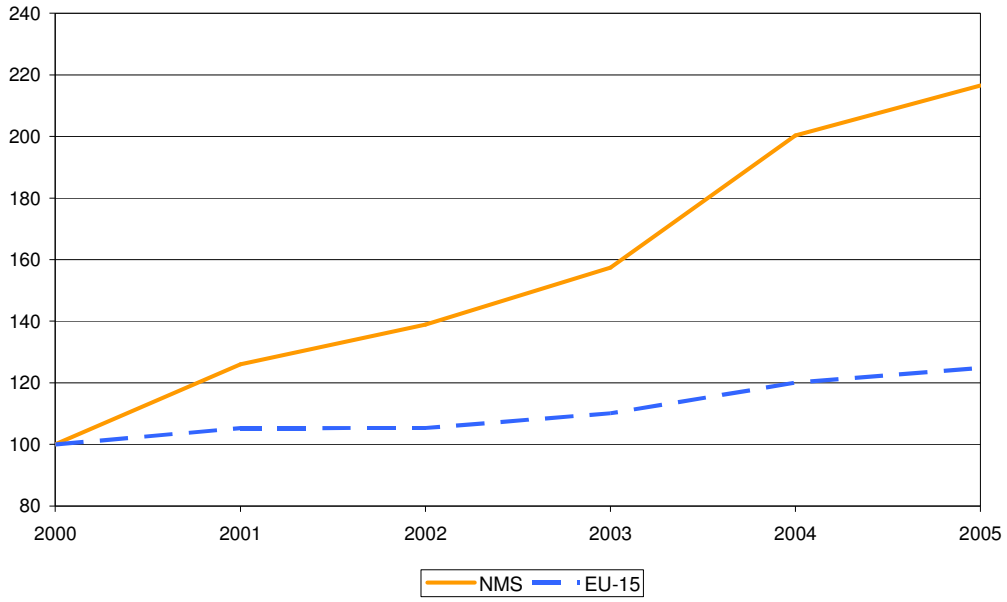

Figure 17: Development of air passenger traffic in EU-15 and NMS (2000=100) (Source: Eurostat)

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 carrierss, 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 transhipment 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 á 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 then 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

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

Annex 1: Case Studies

STATUS Final version

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Contents

Introduction

This annex contains 14 case studies. These studies were conducted in the second phase of the study (April – June 2007). The objective with the case studies was to obtain a better view and understanding of the most relevant impacts on the transport sector. The case studies were selected with the purpose of considering those segments and issues in which the changes are most clearly related to the reforms due to the transposition and implementation of the acquis. It was not the intention to cover all transport modes and all issues. We have paid more attention to the road and railway transport sectors, because changes were most profound. The maritime, air and inland waterway transport markets were subject to common international legislation well before the date of enlargement, which means that the impacts of enlargement were more limited.

For most case studies, we conducted several interviews with stakeholders and undertook a review of the most relevant literature. Resources and time were such that the results should be considered as testimonies rather than as academic research. Most conclusions are qualitative and mainly indicative of the order of the extent of impacts.

Case Study “Impact of EU Accession on railway transport in the Baltic states”

By:

COWI

1. The "case"

Trade and communication between the Baltic states and EU-15 has increased rapidly during the last years. The reasons are a mix of high economic growth in the countries partly caused by the economic integration with the rest of Europe, liberalisation of the economies and globalisation generally.

Road transport increased its market share dramatically over the last 15 years for passengers at the expense of the railways, but the volume of rail passenger transport has in the last years been stabilised or increased moderately. Freight transport by rail has in the Baltic states experienced a positive development in volumes over the last year because of the increase in transit traffic generated by the positive economic development in especially Russia. The liberalisation of the railways in accordance with the EU Acquis provides the sector with new tools to develop its efficiency.

The rail sector in the Baltic states plays - compared to most other European countries - a much more important role in the national economies because of the incomes from the east-west freight transit transport between Russia/Belarus and the Baltic ports. This is also the reason behind the relatively strong financial position of the national railway undertakings which in the past has made it possible to cross subsidise passenger transport internally in the railway organisations.

The three Baltic states have a rail infrastructure with broad gauge (1520 mm) like in Russia. The gauge in Poland and Central and Northern EU is the narrow type (1435 mm) so transhipment in some form has to take place between the two systems at the Polish/Lithuanian border. This takes time and money and reduces the competitiveness of rail in the north - south direction, but it also means that a number of technical EU requirements in the rail sector are in practise addressing issues related to an integrated narrow gauge system and therefore of less relevance for the rail systems in the Baltic states. [1]

This case study analyses how the EU Acquis in the railway sector has affected the sector in the three Baltic states with regard to market opening and competition which again leads to a larger integration with the European transport markets.

[1] The European high priority project "Rail Baltica" to construct a modern north-south rail link with the rail system in Poland is presently debated. A strategic feasibility study of sepcific development options for such a link was completed in January 2007. The study was prepared by COWI A/S for the European Commission, Directorate-General Regional Policy:: "Feasibility study on Rail Baltica railways"

2. EU Acquis in the railway sector

The following essential EU regulations in the railway sector are part of the Acquis Communitaire, which have been critical for the development of the sector in the new member states in the years before accession. In reality the whole regulatory framework has been changed and the way of thinking in the railway sector had to change from centralised state sector planning to market driven development.

In the so-called "first railway package" the Council and the European Parliament adopted far-reaching measures in the railway sector. This first railway package includes the following documents:

- Directive 2001/12/EC of the European Parliament and of the Council of 26 February 2001 amending Council Directive 91/440/EEC **on the development of the Community's railways**

- Directive 2001/13/EC of the European Parliament and of the Council of 26 February 2001 amending Council Directive 95/18/EEC **on the licensing of railway undertakings**

- Directive 2001/14/EC of the European Parliament and of the Council of 26 February 2001 on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification

A number of other more technical requirements are presented in the Annex concerning interoperability, state subsidies and competition.

In 2004 the European Commission presented a further series of measures to revitalise the railways - the Third Railway package- which are not yet fully implemented although some of the countries are far in the implementation process. The main objectives are:

- The opening up of the market of passenger services by rail in several steps (first niche markets, then services without cabotage and, finally, all services)
- Improving passenger rights
- Ensuring quality rail freight services

According to these regulations and based on the stipulations on competition in the Treaty establishing the European Economic Community, no state aids may be granted for transport by rail, road and inland waterways. However, these regulations do not apply to Public Service Obligations (PSO). Such services are normally performed to support social, environmental and town and country planning objectives as well as with a view to offering affordable fares to certain categories of passengers, and they have to be operated on the basis of a public service contract.

The main measures offered from European Commission and old member states to implement the change have primarily been:

- Technical assistance to prepare legislation and institutional and organisational change

- Twinning projects with direct involvement of old member states (which in many cases are reported to have worked well)

- Investment grants to plan and upgrade infrastructure

3. The expected impacts

The enlargement is based on implementation of a set of legislative, institutional and infrastructure measures in the transport sector in the new member states. The expected impacts are mainly a revitalised transport sector with:

- Better infrastructure due to massive investments in networks and border crossings

- Higher transport efficiency due to more competition between operators in the rail sector and reduced hidden cross subsidising between passenger and freight transport

- Higher environmental standards

- Improved safety

- Higher quality standards

4. Implementation process and status

In general adoption of the EU legislation went fairly easily as the eagerness to access the EU was huge. In some instances the speed of change was - according to EU sources - almost too fast to ensure that all consequences were well thought through. One example is the "interoperability directive", which the Ministry of Transport in Latvia has said was implemented legally without understanding the content; and the consequence has been that the Ministry has had to use additional resources afterwards in a process to amend and adjust the legislation. Although the basic legislation is in place and much is achieved there are still implementation issues which need to be finalised .

Another factor for a smooth implementation of the Acquis was the realised need to restructure the railways anyway because of the huge change in the economies and the large increase in demand for road transport in the 1990'ies combined with old and poor quality of infrastructure and rolling stock. So enlargement lead to important pressures to restructure the railways from a state planning to a market driven framework.

Latvia implemented before accession the three key directives in the first railway package and is far with the third package, so the legal basis is very advanced. A practical issue which still needs to be settled as a consequence is the re-organisation of the state joint stock company Latvijas Dzelzcels ("Latvian railways") into a structure with a holding company and separate daughter companies for infrastructure management and various types of operations. According to the Ministry of Transport all main stakeholders in the sector were positive towards the principles in the Acquis, which has facilitated the implementation process in the country.

Lithuania implemented also the three key directives before accession but some important elements remain to be implemented such as a separation of the service provider and contracting authority in legal and economic terms, setting up an infrastructure charging methodology, separate infrastructure and railway management from other commercial activities and production of a network statement.

Like the two other countries **Estonia** has also implemented the three key directives. Estonia chose in 2001 a debated privatisation strategy in the rail sector which was very different from the rail restructuring approach in the two other countries. The process was at that time problematic and affected the working process of the Government and the Estonian privatization agency[2].

Substantial investments have already been made in the railway sector for both physical infrastructure and capacity building and institutional development in all three countries. Planned investments for the period 2007 - 2013 in the railways sector amount to 800 - 1000 million EUR in Latvia, about 725 million EUR in Lithuania and about 400 million EUR in Estonia.

5. Realised impacts

The most visible direct impact in the rail market is the number of issued active rail licences[3], which is a proxy for the level of competition and market opening. In short competition has been introduced in all three countries and new operators have entered the market, but with exception of Estonia the "old" state rail operators dominate the markets although the new operators continuously increase their market share
.
Latvia and **Lithuania** have now a railway sector set-up which matches the sector in EU-15 although massive investments are still required in modernisation of the infrastructure to bring it on an equal footing.

The most direct impact in the market in **Latvia** is that 9 rail licenses have been granted so there are 5 registered passenger operators and 4 freight operators. The companies in the Latvijas Dzelzcels group still have a market share of around 87% in freight transport but the share of other operators is increasing. Compared with the rest of the EU Latvia has a high share of new operators in the rail freight market.

In **Lithuania** the state company Lietuvos Gelezinkelia ("Lithuanian Railways") is still very dominant but 3 more licences have been granted (primarily in the freight market).

In **Estonia** there are two rail infrastructure managers which are vertically integrated, i.e. at the same time rail operators and infrastructure managers. Eesti Raudtee operates in the north and east focussing on freight and Edelaraudtee operates largely in the south and west focussing on passenger transport. Edelraudtee is 100% privately owned. Eesti Raudtee has been owned partly by private investors and partly by the state but the state made an agreement with the private investors in November 2006 to take over all shares

[2] See *Transport sector restructuring in the Baltic States toward EU accession*, proceedings from seminar in Pärnu November 24-25, 2003 hosted by The World Bank and Estonian Ministry of Economic Affairs and Communications
[3] Registered active rail licences by the European Commission per 16th March 2007.

in the company. 23 operating licences for rail operators have been granted of which 3 are for passenger operations.

The new operators in the freight market often originates from shippers who have a special interest in specialised services.

The on-going substantial investments in the rail sector supported by EU grants will clearly lead to higher quality and safety of rail operations than would otherwise have been the case because of e.g. improved signalling systems and higher speeds and less traffic restrictions on the lines. Furthermore, the EU requirements to environmental impact assessments and protection of e.g. Natura 2000 areas are presently ensuring higher environmental standards when modernising and upgrading the infrastructure.

6. Obstacles and costs

The EU transport policy (the "White Paper") requires a balance between the developments of transport modes which can be seen as giving priority to development of the rail sector. The Structural Funds are dedicated to a 50/50 split between road and rail which in some cases leads to a conflict of interest in countries where road transport is developing fast and national priorities may be in favour of more road than rail investments. From a national viewpoint it is often felt that the EC "dictates" where investments funds shall be used.

The liberalisation of the rail sector in the Baltic states has created a number of important challenges in the transport relations with Russia and Belarus for the new operators in the market. Russian operators only accepts the "old" national transport companies as partners which means that other operators in these trade relations have to operate via the national operators, which of course reduce the level of open competition. The transit transports account for 80%- 90% of total rail freight in the Baltic states but Russia and Belarus do not yet accept other rail operators than the traditional state organisations. Further, the enlargement has created new problems at the borders to these countries, as these borders are now EU external borders.

The biggest obstacle for competition in the rail sector in the Baltic states in the long run is the existence of the broad gauge system, which in reality means that Europe has two sets of systems and rules. This limits the competition for both equipment and operations in the Baltic states from other EU countries, and equally important it must be understood that EU legislation has to take account of this and some degree of flexibility in implementation of technical standards needs to be allowed.

At the macro economic level the accession has introduced a number of changes which has also affected the rail sector. One example is energy prices where the countries now pay world market prices for energy imported from Russia.

Finally, the liberalisation of the transport markets allows that companies registered in other countries can apply for permission to operate, and the Baltic states may experience that Russian interests in the future can obtain an important role in the sector.

7. General evaluation

A separation of infrastructure management/ownership and operations has been obtained. The railways now face a situation with a high general growth of transport demand, more concern on the negative environmental effects from increased road transport, and a better platform for offering efficient operations.

The general assessment is that the enlargement process and the implementation of the EU Acquis has fundamentally changed the regulatory and institutional frameworks in the rail sector in the three Baltic states and created the basis for a future modern transport system based on an open market with fair and transparent competition between transport operators. But the competition is severely limited because the Baltic states has a rail infrastructure which is different from the neighbouring EU countries. Further, important transit relations with Russia/Belarus are complicated and reduce the open and fair competition for the important freight transit flows.

The process of implementing the EU Acquis in the railway sector is very advanced in legal terms:

- The process of liberalisation of the rail transport market is ongoing
- The railway infrastructure management functions and the operation of freight and passenger traffic are being separated
- Independent structural units for freight and passenger transport will be or are established

The direct impact for the transport users in **Latvia** and **Lithuania** is most concretely seen in the physical upgrades of parts of the railway infrastructure and rolling stock. A number of operators have shown interest in and have obtained access to the infrastructure and they compete with the former state railways. Major impacts on transport prices and offered services still remains to be seen.

The development of the railway sector in **Estonia** has been very different from the situation in the two other Baltic states and a visible result has been a much more open market for rail operations and with more players - also from outside Estonia. Summing up costs and benefits of EU accession in the railway sector is premature for the three countries considered. The foundation for a more effective rail sector is now implemented, but maximum use of this fundament with increased competition is limited due to the different rail gauge system of the three Baltic states. The railway sector is still believed to obtain net benefits of the new situation and future monitoring of safety, quality, costs levels, number of operators etc. is essential to assess the long term impacts of the enlargement in the sector.

The countries were keen to implement the necessary changes in the rail sector, but they have also realised afterwards that the changes were made fast and the authorities were not able to fully realise the consequences. This has led to some frustration and work to amend the legislation first adopted. This is an area where TA to other countries can be approved.

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9. ANNEX: Technical regulations

Interoperability
With regard to the conventional rail network, the Directive 2001/16/EC of 19 March 2001 has been adopted by the Council and the European Parliament.
The Directive required a first group of priority Technical Specifications for Interoperability (TSIs) to be adopted in the following areas:

- Control/command and signalling
- Telematics applications for freight services
- Traffic operation and management (including staff qualifications for cross-border services)
- Freight wagons
- Noise problems deriving from rolling stock and infrastructure

Directive 96/48/EC and Directive 2001/16/EC were amended by Directive 2004/50/EC in April 2004 following a number of lessons learned from the work on developing TSIs and the application of the directives to specific projects.

According to this directive, a work programme is to be adopted, aiming at the development of new TSIs and the review of TSIs already adopted.

State aids and competition, public service obligations
With regard to public service obligations, state aids and competition the following documents are of relevance:

- Council Regulation (EEC) No 1893/91 of 20 June 1991 amending Regulation (EEC) No 1191/69 on action by Member States concerning the obligations inherent in the concept of a public service in transport by rail, road and inland waterway
- Regulation (EC) No 1/2003 of the Council of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty
- Commission Regulation (EC) No 2843/98 of 22 December 1998 on the form, content and other details of applications and notifications provided for in the Council Regulations (EEC) No 1017/68, (EEC) No 4056/86 and (EEC) No 3975/87 applying the rules on competition to the transport sector
- Regulation (EEC) No 1107/70 of the Council of 4 June 1970 on the granting of aids for transport by rail, road and inland waterways

Case Study “Road safety development in road transport in NMS”

By:

COWI

1. Introduction

This case study is dealing with road safety. The case study will briefly compare the overall statistics on road safety from old and new member states. The case study will then go in to more details with Hungary and Latvia. These two countries are interesting as they are two new member states who have performed differently following enlargement.

2. The "case"

The area of road safety improvement is only to a limited extend covered in the EU legislation. However there are rules on seat belts, safety standards of vehicles, driving licences and rules specifically for commercial transport (driving and resting time, transport of dangerous goods) which all influence road safety.
The case study will be an input to answer the questions in the Terms of Reference on transport safety:

- How has transport safety in the European Union been affected by the 2004 enlargement?
- Is there a difference between safety levels in the old and new Member States?
- If yes, what policies are being followed to remedy this situation?
- Are these policies effective and efficiently implemented?

It will also attempt to give some answers to:

- What measures has NMS taken to improve road safety?
- What are the impacts?
- Is the road safety plan mandatory or only encouraged? How has the fact that the traffic safety plan sets targets for reduction of fatalities changed traffic safety policies? Did it unchain more measures in this field?
- What was the role of Technical Assistance? Results?
- There is EU-regulation on safety (seat belts, drinking and driving, driving hours in commercial transport, driving licences.) Did this regulation have influence?
- How can safety be further improved?
- Has compliance with Acquis and association with EU-policies increased the priority of traffic safety?

Focus will be on road safety as they account for a very large proportion of the transport fatalities with more than 40,000 fatalities per year.

3. Relation to EU-enlargement - EU Aqcuis related to road safety

The road transport acquis which touches on road safety are to large extend related to commercial road transport. The key ones related to road safety include:

- Technical conditions: weights and dimensions, speed limit devices, road worthiness testing
- Safety conditions: driving licences, seat belt use
- Dangerous goods transport
- Social conditions : maximum drivers hours, rest periods and equipment (tachograph)
- Qualitative standards for access to the profession and standards for drivers training.

In the Annex the relevant EU-regulations on road transport (EU-Aquis) is listed. The main EU regulations relevant for road safety include:

Transportation of goods and passenger:

- Directive 2000/30/EC of the European Parliament and of the Council of 6 June 2000 on the technical roadside inspection of the roadworthiness of commercial vehicles circulating in the Community;
- Directive 2002/85/EC of the European Parliament and of the Council of 5 November 2002 amending Council Directive 92/6/EEC on the installation and use of speed limitation devices for certain categories of motor vehicles in the Community;
- Directive 2003/59/EC of the European Parliament and of the Council of 15 July 2003 on the initial qualification and periodic training of drivers of certain road vehicles for the carriage of goods or passengers, amending Council Regulation (EEC) No 3820/85 and Council Directive 91/439/EEC and repealing Council Directive 76/914/EEC
- Regulation (EC) No 561/2006 of the European Parliament and of the Council of 15 March 2006 on the harmonisation of certain social legislation relating to road transport and amending Council Regulations (EEC) No 3821/85 and (EC) No 2135/98 and repealing Council Regulation (EEC) No 3820/85
- Directive 2006/22/EC of the European Parliament and of the Council of 15 March 2006 on minimum conditions for the implementation of Council Regulations (EEC) No 3820/85 and (EEC) No 3821/85 concerning social legislation relating to road transport activities and repealing Council Directive 88/599/EEC
- Council Directive 96/26/EC of 29 April 1996 on admission to the occupation of road haulage operator and road passenger transport operator and mutual recognition of diplomas, certificates and other evidence of formal qualifications intended to facilitate for these operators the right to freedom of establishment in national and international transport operations (and further amendments)
- Directive 2003/59/EC of the European Parliament and of the Council of 15 July 2003 on the initial qualification and periodic training of drivers of certain road vehicles for the carriage of goods or passengers

General road safety:

- Directive 2006/126/EC of the European Parliament and of the Council of 20 December 2006 on driving licences.
- Directive 2003/20/EC of the European Parliament and of the Council of 8 April 2003 amending Council Directive 91/671/EEC on the approximation of the laws of the

Transportation of goods:

- Council Regulation (EEC) No 881/92 of 26 March 1992 on access to the market in the carriage of goods by road within the Community to or from the territory of a Member State or passing across the territory of one or more Member States (and further amendments)
- Council Regulation (EEC) No 3118/93 of 25 October 1993 laying down the conditions under which non-resident carrier may operate national road haulage service within a Member State (and further amendments)
- Regulation (EEC) No 484/2002 of the European Parliament and the Council of 1 March 2002 on drivers certificate (and further amendments)
- Council Directive 94/55/EC on the approximation of the laws of the Member States relating to road transport of dangerous goods (and further amendments)
- Council Directive 95/50 on uniform procedures for checks of the transport of dangerous goods by road

Transportation of passenger:

- Council Regulation (EEC) No 684/92 of 16 March 1992 on common rules for the international carriage of passengers by coach and bus (and further amendments)
- Council Regulation (EC) No 12/98 of 11 December 1997 laying down the conditions under which non-resident carriers operate national road passenger transport services within a member State (and further amendments)

Insurance:

- Council Directive 72/166/EEC of 24 April 1972 on the approximation of the laws of the Member States relating to insurance against civil liability in the respect of the use of motor vehicles and to enforcement of the obligation to insure against such liability (and further amendments)
- Council Directive 84/5/EEC of 30 December 1983 on the approximation of the laws of the Member States relating to insurance against civil liability in respect of the use of motor vehicles (and further amendments)
- Directive 2000/26/EC of the European Parliament and the Council of 16 May 2000 on the approximation of the laws of the Member States relating to insurance against civil liability in respect of the use of motor vehicles and amending Council Directives 73/239/EEC and 88/357/EEC (Fourth motor insurance Directive)

Member States relating to compulsory use of safety belts in vehicles of less than 3,5 tonnes ; • Council Directive 96/96/EC of 20 December 1996 on the approximation of the laws of the Member States relating to roadworthiness tests for motor vehicles and their trailers;	**Database:** • Council Decision 93/704 on the creation of a Community database on road accidents

Note: The base directives and regulations are generally mentioned and thus not all further amendments.

4. The expected impacts

The accession into EU is assumed to result in an increase in people's standard of living. If no particular actions are taken, this will probably result in a higher passenger car ratio and therefore an increase in the number of casualties.

However, EU has suggested an overall target and a number of specific initiatives in order to decrease the number of casualties. The EU countries have committed themselves to half the number of fatalities. The development in number of casualties may however, be affected by each country's use of quantitative targets and specific initiatives.

Accession to the EU was expected to improve safety in the study countries[1]. The introduction of social legislation, speed limiters and proper enforcement of EU technical requirements will lead to a reduction in accidents. Based on evidence from existing EU member states it has been estimated that the introduction of EU standards will result in a reduction of around 15% in accidents for trucks and buses.

The construction of the TINA network was also expected to increase safety. Road transport accident rates will fall with the replacement of single carriageway roads by motorways and expressways.

By implementing as many initiatives as possible - including the directives relevant for road safety - it is possible that the number of casualties in each member state will decrease. Furthermore it might improve road safety work in the new member states in general.

5. Implementation process and status

This chapter will first present the status of road safety in all EU and there will then be some more in-depth assessment of two countries which will be used to generalize to all new member states.

5.1 Status of road safety in EU

The statistics from the CARE database collected as part of a project to prepare Country Profiles in Road Safety for EU25[2] show that there is a difference between safety levels in new and older countries. Figure 1 shows that the average number of fatalities per million inhabitant in the new member states (EU10) is just under 140 while the average of the old member states (EU15) is just over 80.

[1] International Road freight Transport (Halcrow Fox/ NEI: Costs and Benefits of Enlargement (CBET), 1999)
[2] Preparation of country profiles - Final Report, prepared by COWI for DG-Tren, April 2005

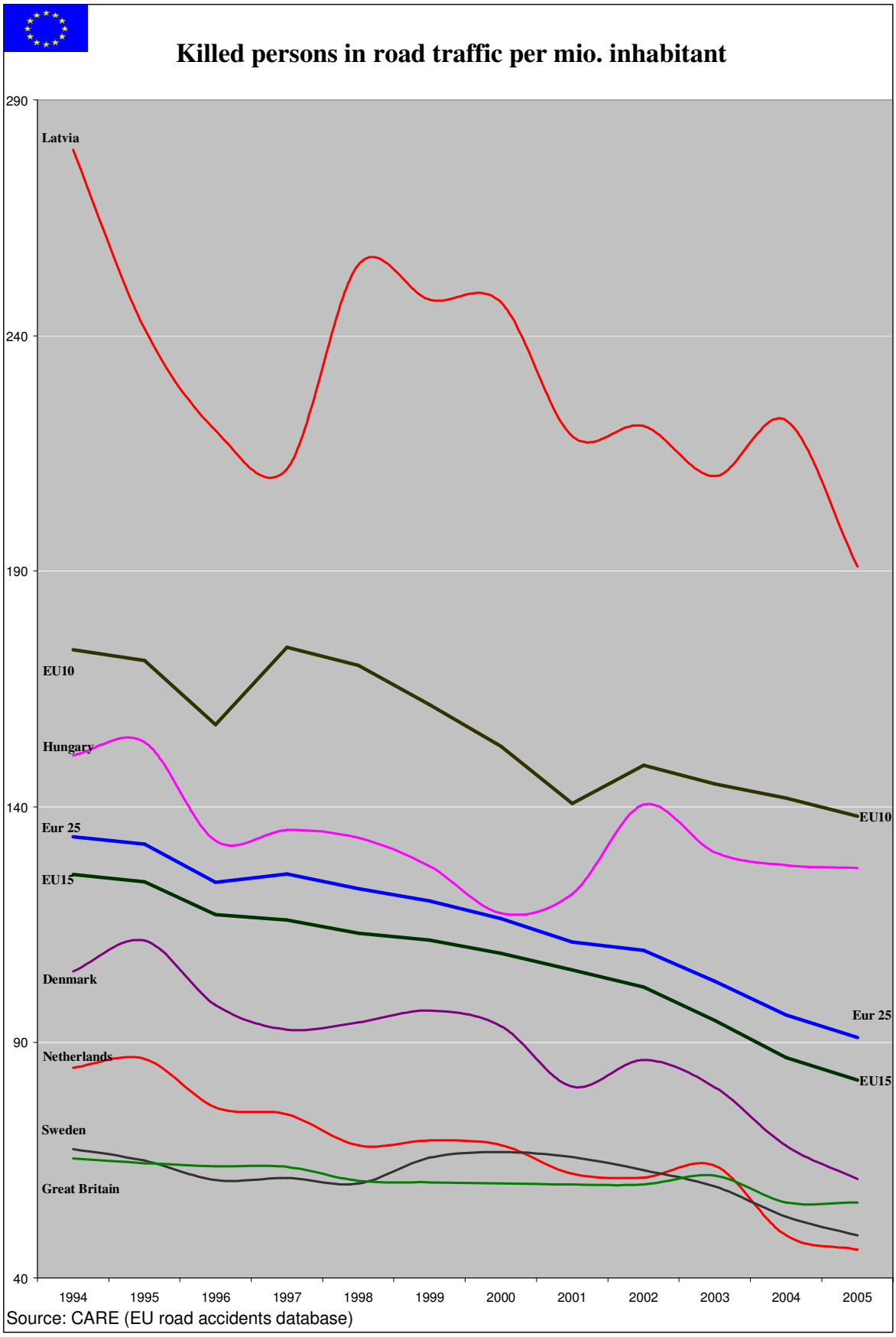

Figure 1 Number of fatalities per million inhabitants by EU25, EU 15, EU10 and selected Member States[2]. Source: CARE (EU road accident data base)

Figure 1 from the study on country Profiles[2] illustrates the development in fatalities per million inhabitants for all 25 EU countries. The figure shows that the performance of a group of countries has been better than the average of EUR25 throughout the period from 1994 to 2003. These countries comprise the Nordic countries, UK and Netherlands. The development of the performance in the countries above the EUR25 average is characterised by greater fluctuation as may also be seen for the examples of Latvia ad Hungary, and for the average of EU10. The new member states generally have the highest number of fatalities per million inhabitants, which may also be seen on the graph for EU10.

The number of fatalities per million inhabitants in 2001 and 2005 is illustrated in Figure 2 also from the Country Profile report[2]. Countries such as France, Portugal and Luxemburg have reduced the number of fatalities per million inhabitants significantly during the recent years, e.g. due to improved enforcement. Some of the new member states have also experienced reductions in number of fatalities but a few such as Hungary and Lithuania has during that period experienced an increase in the number of fatalities per million inhabitants.

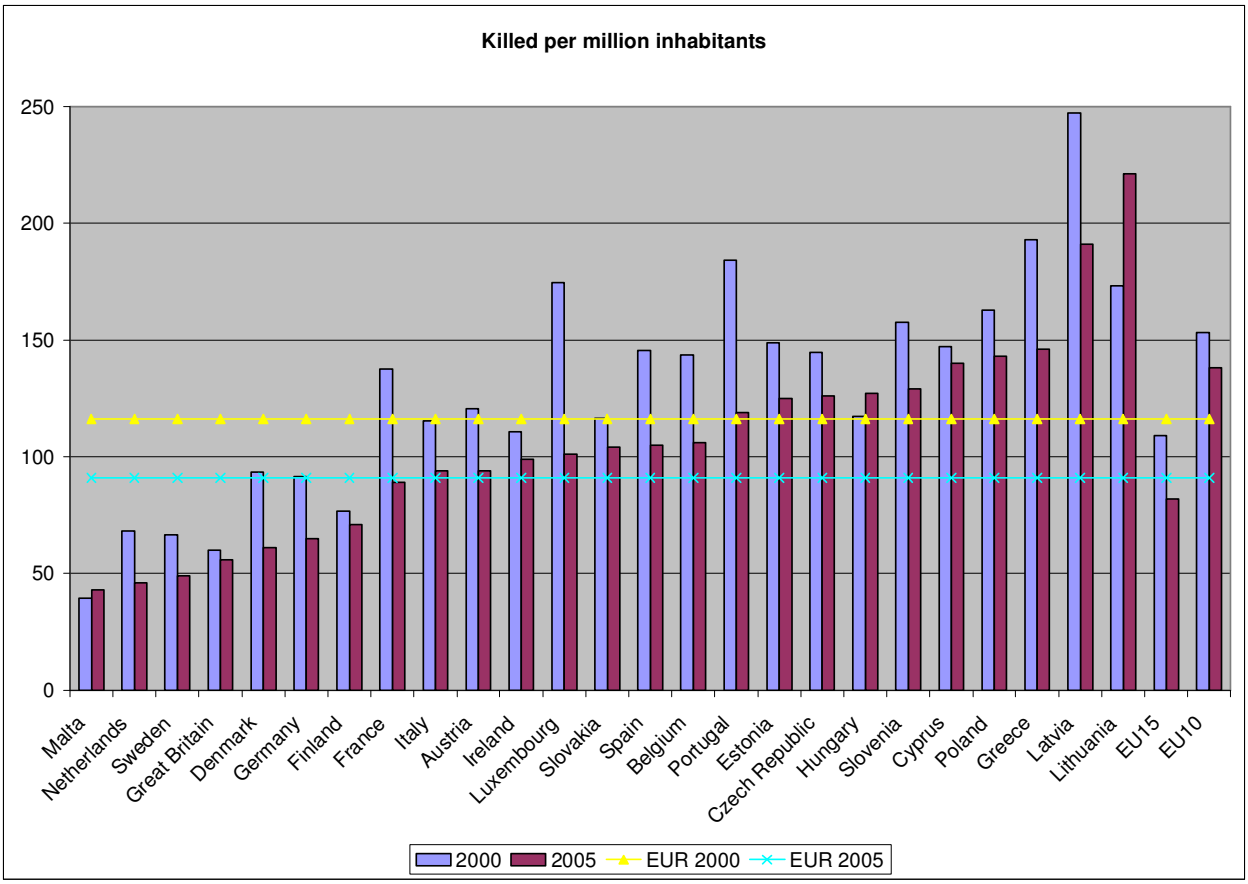

Figure 2 Fatalities per million inhabitants - evolution 2001-2004[2]. Source: CARE (EU road accident data base)

Table 1 Overview of the existence of national road safety plans and quantitative targets in each of the 25 EU countries. The current road safety performance is indicated compared to the average of EUR25

Country	Has national road safety plan	Is preparing national road safety plan	Quantitative targets	Road safety performance compared to EUR 25 (2004)
Belgium	Yes (2001)	-	50% reduction in fatalities by 2010 compared to 2000	Worse
Czech Republic	Yes (2003)	-	50% reduction in fatalities by 2010 compared to 2001	Worse
Denmark	Yes (2000 new)	-	40% reduction in casualties by 2012 compared to 1998	Better
Germany	Yes (2001)	-	None	Better
Estonia	Yes (2003)	-	Maximum 100 fatalities in 2015 or 50% compared to 2001	Worse
Greece	Yes (2001)	-	20% reduction in fatalities by 2005 and 40% by 2015 compared to 2000	Worse
Spain	Yes (annually)	Yes (2005)	40% reduction in fatalities by 2008 compared to 2004	Worse
France	Yes (annually)	-	None	Better
Ireland	Yes (2002 new)	-	20% reduction in fatalities by 2006 compared to average between 1998 and 2003	Better
Italy	Yes (1999)	-	40% reduction in fatalities by 2010 compared to average of 1999 to 2001	Same
Cyprus	Yes (2001)	-	50% reduction in fatalities by 2010	Worse
Latvia	Yes (2006)	-	50% reduction in fatalities by 2010	Worse
Lithuania	Yes (2003)	-	50% reduction in fatalities by 2010 compared to 2004	Worse
Luxembourg	No	No	None	Worse
Hungary	Yes (1993)	Yes (2005)	20-30% reduction in casualties by 2000 compared to 1992	Worse
Malta	No	Yes (2005)	50% reduction in injury accidents by 2014	Better
Netherlands	Yes (2001)	Yes (2005)	Maximum 900 fatalities and 17,000 injuries by 2010 or 17% compared to 2001 (fatalities)	Better
Austria	Yes (2002)	-	50% reduction in fatalities by 2010 compared to average of 1998 to 2000	Worse
Poland	Yes (2001)	-	36% reduction in fatalities by 2010 compared to 2000	Worse
Portugal	Yes (2003)	-	50% reduction in casualties by 2010 to average of 1998 to 2000	Worse
Slovenia	Yes	-	50% reduction in fatalities compared to 1995	Worse
Slovakia	No	Yes (2005)	50% reduction in fatalities by 2010	Worse
Finland	Yes (2000)	-	Maximum 250 fatalities in 2010 or 42% compared to 2000	Better
Sweden	Yes (1999)	-	50% reduction in casualties by 2007 compared 1996, vision is 0 fatalities	Better
United Kingdom	Yes (2000)	-	40% reduction in casualties by 2010 compared to average of 1994 to 1998	Better

5.2 National road safety plans in EU

There are indications that new member states are influenced by EU regulations and best practices with regard to road safety. Table 1 from the Country Profile report[2] summarises which countries have prepared a national road safety plan, which countries are in the process of preparing such a plan and which countries have no national road safety plan.

Even though traffic safety plans are not mandatory but only encouraged most countries do have a national road safety plan or are in process preparing one. Only Luxemburg has no road safety plan and is not planning to prepare one. Almost all countries have set up quantitative targets for road safety in their country. Germany, France and Luxemburg have no quantitative targets for improving road safety.

What is interesting is that most old member states have their own targets while most new member states adopted the EU target of 50% reduction in fatalities by 2010.

6. Examples in Hungary and Latvia

The following is a more in depth assessment of two countries which will be used to generalize to all new member states. Hungary was in 1994 among the better performing of the new member states regarding fatalities, however with a recent increase between 2000 and 2002, whereas Latvia is the country with the highest number of fatalities per million inhabitants but with a recent decrease. This is illustrated in Figure 1.

This case study assesses which new initiatives Hungary and Latvia has implemented in their road safety work and which impact it has had and what could be attributed to the accession process. Moreover, it assesses which initiatives the administration and organizations would like to implement in order to improve road safety.

This case study is based on data from CARE and the study of Country Profiles and on interviews with the administrations in Hungary and Latvia. The interviews are carried out both to collect quantitative data about specific initiatives as well as qualitative information about the impact of the initiatives. The project group has assessed the overall impact on road safety in Hungary and Latvia after accession. It is also assessed to which extent the conclusions of this case study apply to other new member states. Moreover the difference between old and new member states is assessed.

6.1 Status and development in the number of casualties

The development regarding accidents and casualties in Hungary has been very fluctuating during the last decade. Hungary was one of the better performing of the new member states with regard to road safety in 1994. However after 2000 the number of fatalities has slightly increased peaking in 2002 and then stabilised at a higher level until 2005.

The national target in Hungary was to reach a 20-30% reduction in fatalities by 2000 compared to 1992. Hungary reached this goal in 2000, however after 2000 the number

of fatalities has as mentioned slightly increased. A new objective is being prepared but is still outstanding.

The development regarding accidents and casualties in Latvia has been very fluctuating during the last decade but generally with a falling trend. The number of fatalities reduced considerably during 2001 – 2006, i.e., approximately 27%.

The national target in Latvia was to reduce the number of fatalities by 2006 compared to 1999. By 2004 the decrease was approximately 15%. A Road Traffic Safety Programme for 2007-2013 has recently been prepared taking into consideration the main goal of EU White Book – to half the number of fatalities in road accidents until 2010.

6.2 The implementation process

The initiatives that have been implemented include legislation and enforcement as well as best practices on e.g. polices, plans, road design and training and promotion.

Latvia applies most types of actions and their quality is rather good, while in Hungary many actions have been implemented only to a limited extend and the quality is in many cases not considered to be high yet.

Legislation and institutional and corresponding enforcement

The areas of legislation from the EU transport acquis for improving road safety include:

- Technical conditions: weights and dimensions, speed limit devices, road worthiness testing
- Safety conditions: driving licences, seat belt use
- Dangerous goods transport
- Social conditions : maximum drivers hours, rest periods and equipment (tachograph)
- Qualitative standards for access to the profession and standards for drivers training.

The assessment of the implementation of some of the legislation and the related enforcement in Latvia and Hungary is presented in Table 2. It shows that both states have already implemented most of the legislation and regulations suggested by EU.

Table 2 Assessment of implementation of EU-legislation and corresponding enforcement and institutional issues

Implemented initiative	Hungary		Latvia	
	Implemented	Quality	Implemented	Quality
Seat belt use	Yes	Under medium (higher usability needed and enforcement could be better)	Yes, more or less	Medium (higher usability needed and enforcement could be better)
Daytime running lights	Yes	Medium (enforcement could be better)	Yes	Good
Penalty scoring system	Yes	Under medium (enforcement could be better)	Yes	Good
Periodic technical inspection	Yes	Medium (enforcement could be better)	Yes, more or less	Medium (enforcement could be better)
Road worthiness test	Yes	Medium (enforcement could be better)	Yes, more or less	Medium (enforcement could be better)
Working and resting time of professional drivers	Yes	Medium (enforcement could be better)	Yes	Good
Driver training and testing	Yes	Medium (higher usability needed)	Yes	Good

On top of these measures, Latvia has implemented rules which ensure the arrest for driving car in drunken condition. A penalty scoring system has been applied which also include the disuse of child restraint systems.

Answers from informants in Hungary and Latvia suggest that a few of the regulations are not being enforced well enough. As an example regular periodic inspection of cars is not carried out often enough. It is also mentioned that in Hungary there are "backdoors" to get permission also for cars in poor technical condition. In Hungary, in general the quality of police control on roads needs improvements.

In Latvia cooperation among Road Traffic Safety Bureau, Ministry of Transport, Cabinet of Ministers and State Police has improved. This cooperation was initiated by EU supported projects.

EU recommended initiatives

The EU action programme to half the number of fatalities recommends a number of actions. Some of these recommendations and their applications in Latvia and Hungary are summarised in Table 3. It appears that several EU recommendations are taken over, however the quality of the actions varies.

Table 3 Assessment of safety initiatives recommended by EU

Implemented initiative	Hungary		Latvia	
	Implemented	Quality	Implemented	Quality
National action plan for road safety	Partly	Under medium (updating needed)	Yes	Good
Road safety council or commission	Only implemented to limited extend	Under medium (not used much)	Yes	Good
Other councils	More or less implemented	Under medium (not focused on road safety)	-	-
Local speed plans	Partly	Medium (partly used)	-	-
Black spots	More or less implemented	Fair	Yes	Good
Safety audits	Only implemented to limited extend	Under medium (still under development)	Yes	Good
Campaigns	Yes	Under medium (quality not rated to be adequate and especially related enforcement need improvement)	Yes	Good
Information and traffic education	More or less implemented	Fair	Partly	Under medium (could be improved)
Police control on roads	Yes	Under medium (apart from during specific campaigns	Yes	Good
Monitoring of objectives	Yes	Fair/good	Yes	Good
Roundabout	Yes	Good	Partly	Good
Initiatives for pedestrians and cyclists, e.g. tunnels/subways, bridges or pedestrian crossings	Yes	Under medium (only limited resources)	More or less implemented	Good
Traffic calming by infrastructure measures	More or less implemented	Fair	Partly	Under medium (could be improved)

Policies and safety plans

Both countries prepared road safety plans which set targets for reduction of fatalities. The Hungarian plan needs updating.

Both Hungary and Latvia were inspired by EU programme for improving road safety and took over its recommended actions in their national plans. The Latvian plan took into account the EU target when setting there own.

Road design

Both Latvia and Hungary are using the identification of black spots and their removal and find this work rather effective. In Hungary the black spot system is only applied to the national road network.

Measures such as roundabouts have been used extensively in Hungary and less in Latvia. In both countries these are considered to be of good quality.

Measures for pedestrians and cyclists, such as e.g. tunnels/subways, bridges or pedestrian crossings are not often used due to limited resources.

Administrations are willing to implement measures such as traffic calming by redesigning infrastructure, but so far it has been done only at a few places. The impact is not yet known.

Hungary considers some of its motorway development projects also as road safety projects because of the significant influence to the road safety situation.

Training and promotion

In Hungary there is also an initiative coming from police to organise and keep road safety presentations in elementary schools. Based on the lessons in elementary schools road safety competitions are organised.

A school for safe driving at winter conditions has been established in Latvia. Different educational programmes regarding traffic safety for children at schools has been organised.

Other recommended EU initiatives have not been implemented as well yet, e.g. information and traffic education. The initiatives are partly implemented, but the administrations do not have capacity enough to carry it out regularly.

Assistance provided

Both Latvia and Hungary have received technical assistance within road safety. This is in addition to whatever assistance the countries may have received for e.g. implementation of the EU legislation for commercial transport and enforcement of the legislation.

In Latvia the provided assistance is generally rated rather high. Latvia used the accession period to develop the mutual communication and cooperation with other EU countries. Latvia also took part in common projects regarding the organization of campaigns on road safety. The Road Traffic Safety Programme for 2007-2013 has taken into consideration the main goal of EU White Book – to reduce the number of fatalities in road accidents by 50% until 2010.

In Hungary the technical assistance is generally rated rather high while the financial assistance is rated rather low. The technical assistance in Hungary from EU on road safety is assistance to develop a road safety auditing system.

6.3 Realised impacts

A higher passenger car ratio is likely to cause an increase in the number of casualties, if no actions are taken. Countries such as Denmark, Netherlands, Sweden succeeded to break this trend in the mid-70'ties and the number of fatalities has reduced since then, while traffic kept growing.

Both Latvia and Hungary seems to have broken this trend now. The car ownership increased between 1994 and 2005, but the general trend was a reduction in fatalities. There was much fluctuation in the development in accidents and casualties in this period.

The common opinion in Latvia is that to some extend accession has contributed to improving road safety. It must be mentioned that there was a huge urge for improvement in Latvia, because of the very poor road safety situation in the 90-ties. Measures were likely to come up, irrespective of Latvia's accession to the EU.

In Latvia they consider the greatest improvement to road safety to be changes in legislation (the establishment of penalty point scoring system, arrest for driving at drunk condition etc.), as well as more severe penalties for common breaches of traffic rules, police control on roads and educational and informational campaigns of society.

Another impact realised on road safety in Latvia is that there are mutual collaboration among Road Traffic Safety Bureau, Ministry of Transport, Cabinet of Ministers and State Police. This has been established in common EU projects.

The common opinion in Hungary was that the daily work with road safety has not changed at all due to accession. Only to some extend the use of some European guidelines may have had impact.

The greatest improvement of road safety work is by Hungary assessed to be building of roundabouts and implementation of a road safety audit system.

In Hungary the implementation of the use of road safety audits and safety management systems to improve the road safety situation is catalysed by the EU process but not directly related to EU accession. Following accession, transfer of knowledge of previous experiences and guidelines from EU countries is easier to obtain to support implementation of the system.

Both countries have generally implemented the EU transport aqcuis for road transport. This has required the setting up of a road inspection system to enforce the legislation on road transport but has also helped to introduce rules related to driver and vehicles. For Hungary the legislative background is implemented but enforcement is lacking, due to lack of police staff. Generally the road inspectorate in Latvia is considered to be working well (10% of total registered commercial vehicles are controlled). This is in spite of initial problems in setting up the inspectorate especially with regard to lack of competent specialists and short time for elaboration of norms and documentation.

6.4 Obstacles and costs

Costs

In Hungary the annual budget is approximately about 20 million €. This covers mainly (80-90%) junction redesign and reconstruction (for black spots), the remaining resources are used for other initiatives. The government finance more than 90% of the expenses by the ministry and public authorities. Private organisations have very limited budget to finance road safety projects or actions.

In Latvia the size of the budget for road safety was in 2005 approx. 2,6 million Lats or approx. 3.7 million Euro per year. The new National Programme for Road Traffic Safety was developed for 2007–2013 and annual distribution of financing is planned to 27 - 30 million Euro per year or more than 200 million Euro in total from 2007 to 2013. This is approx. 8 times more than spent today. All is planned to be public financing.

There are also other costs to implement EU legislation and development of institutional changes for enforcement. The main costs are related to hiring of additional staff and training. Costs are related to training of inspectors, safety advisors and drivers. Other costs include purchasing of equipment for enforcement, e.g. to enforce EU technical and driving hour requirements.

Obstacles

The greatest barriers/constraints to improve road safety is in Hungary considered to be low level of police control and imperceptible police attendance. This is due to several reasons. One problem is lack of staff due to low salaries and limited budget for the police, thus there are no resources to widen police control. The problem is worsened by the increase in traffic.

The greatest obstacle to improve road safety is in Latvia considered to be the attitude of society. Latvia did not succeed to promote the involvement of society in the development of road safety and to implement regular activities in order to provide normal functioning of road traffic in accordance with the requirements of road safety.

No negative side effects on road safety have been identified of EU enlargement.

7. General evaluation

The two case examples are complementary to each other, because Hungary was among the better performing new member states regarding fatalities, whereas Latvia is among the EU the country with the highest number of casualties pr million inhabitants.

This case study gives indications on what has worked well in the implementation process. Moreover, the case study shows constraints in relation to the implementation. Road safety in the European Union has to some extend been affected by the 2004 enlargement. First of all with the enlargement of the new countries EU had member states which have focused less on road safety and only had a short tradition for road safety work. This meant that EU grew with 10 new member states where the number of fatalities generally was significant higher than in the EU15 countries. Today the EU15 member states have 82 fatalities per million inhabitants compared to 138 in the new member states.

Policies to remedy the differences in road safety were mainly focused on commercial transport. These were oriented at roadworthiness tests of commercial vehicles[3] and on rules on e.g. weight and dimensions, tachograph, braking systems and limits on exhaust emissions, driving licences, transport of dangerous goods, speed limitation devices and

[3] Transport And Enlargement, (Czech Republic, Estonia, Hungary, Poland, Slovenia), Working Paper, European Parliament, Directorate General for Research, TRAN108, 1999

tyre tread depth. The policies for road safety included safety belts, drinking and driving and driving licences. The legislation and policies has developed in the new states as in the old states, and were efficiently implemented. The main outstanding issue is enforcement, which is prioritised differently among countries.

The new member states have committed themselves to half the number of fatalities by 2010. These national targets are often inspired by the targets as set by EU.

Most of the new member states has prepared or are in process of preparing road safety plans even though they are not mandatory but only encouraged. These plans define road safety policies, define measures and identify resources which are needed to reach the targets. The plans are inspired by the recommendations in the road safety action programme for EU and by plans in EU-15. The plans include all kind of measures, also institutional measures such as e.g. creation of road safety councils and improving enforcement.

Also measures inspired by best practices are used including black spot work, road safety audits, campaigns, information and traffic education, police control on roads and monitoring of objectives. Other measures used - to some extent inspired by best practices from old EU countries - include roundabouts, initiatives for pedestrians and cyclists and traffic calming by infrastructure measures.

The road safety plan for 2007-2013 in Latvia, which is currently under preparation, has highlighted that to reach the target in the plan investments are needed which are almost 8 times as high as used today.

The number of fatalities has been reduced over last 10-12 years in the new member states, and it has thus been possible for the new member states to break the tendency of growing traffic leading to growth in fatalities. So even though there has been an impact on road safety the level of fatalities per million inhabitants still is significantly higher in the new member states compared to the old member states.

Most countries have received some sort of technical assistance within road safety. First of all many countries have received technical assistance for e.g. implementation of the EU legislation for commercial transport and enforcement of the legislation. Hungary has received assistance to implement a road safety auditing system. In Latvia the accession has helped to develop the mutual communication/cooperation with other EU countries.

Compliance with the transport acquis and association with EU-policies have increased the awareness of road safety in the new member states. The administration has obtained new tools and knowledge regarding road safety work. Such tools and knowledge ensures that the road safety work can continue successfully in a large perspective.

8. References

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9. ANNEX: EU-legislation related to road safety

The main EU regulatory instruments relevant for road safety consist of (EU-Aquis):

Transportation of goods:

Council Regulation (EEC) No 3820 of 20 December 1985 on driving and rest times (and further amendments)

Council Regulation (EEC) No 3821 of 20 December 1985 on recording equipment in Road transport (and further amendments)

Council Directive 88/599/EC on standard verification procedures for implementation of Council Regulations No 3820/85 and 3821/85 (and further amendments)

Council Regulation (EEC) No 881/92 of 26 March 1992 on access to the market in the carriage of goods by road within the Community to or from the territory of a Member State or passing across the territory of one or more Member States (and further amendments)

Council Regulation (EEC) No 3118/93 of 25 October 1993 laying down the conditions under which non-resident carrier may operate national road haulage service within a Member State (and further amendments)

Regulation (EEC) No 484/2002 of the European Parliament and the Council of 1 March 2002 on drivers certificate (and further amendments)

Council Directive 94/55/EC on the approximation of the laws of the Member States relating to road transport of dangerous goods (and further amendments)

Council Directive 96/35/EC on the appointment and vocation qualification of safety advisers for the transport of dangerous goods by road, rail and inland waterways (and further amendments)

Council Directive 1172/98 on statistical return in respect of the carriage of goods by road (and further amendments)

Council Directive 95/50 on uniform procedures for checks of the transport of dangerous goods by road

Transportation of passenger:

Council Regulation (EEC) No 3820 of 20 December 1985 on driving and rest times (and further amendments)

Council Regulation (EEC) No 3821 of 20 December 1985 on recording equipment in Road transport (and further amendments)

Council Directive 88/599/EC on standard verification procedures for implementation of Council Regulations No 3820/85 and 3821/85 (and further amendments)

Council Regulation (EEC) No 684/92 of 16 March 1992 on common rules for the international carriage of passengers by coach and bus (and further amendments)

Council Regulation (EC) No 11/98 of 11 December 1997 amending Regulation (EEC) No 684/92 on common rules for the international carriage of passengers by coach and bus (and further amendments)

Council Regulation (EC) No 12/98 of 11 December 1997 laying down the conditions under which non-resident carriers operate national road passenger transport services within a member State (and further amendments)

Insurance:

Council Directive 72/166/EEC of 24 April 1972 on the approximation of the laws of the Member States relating to insurance against civil liability in the respect of the use of motor vehicles, and to enforcement of the obligation to insure against such liability (and further amendments)

Council Directive 84/5/EEC of 30 December 1983 on the approximation of the laws of the Member States relating to insurance against civil liability in respect of the use of motor vehicles (and further amendments)

Council Directive 90/232/EEC of 14 May 1990 on the approximation of the laws of the Member States relating to insurance against civil liability in respect of the use of motor vehicles (and further amendments)

Directive 2000/26/EC of the European Parliament and the Council of 16 May 2000 on the approximation of the laws of the Member States relating to insurance against civil liability in respect of the use of motor vehicles and amending Council Directives 73/239/EEC and 88/357/EEC (Fourth motor insurance Directive)

Transportation of goods and passenger:

Council Directive 96/26/EC of 29 April 1996 on admission to the occupation of road haulage operator and road passenger transport operator and mutual recognition of diplomas, certificates and other evidence of formal qualifications intended to facilitate for these operators the right to freedom of establishment in national and international transport operations (and further amendments)

Council Directive 98/76/EC of 1 October 1998 on amending Directive 96/26/EC on admission to the occupation of road haulage operator and road passenger transport operator and mutual recognition of diplomas, certificates and other evidence of formal qualifications intended to facilitate for these operators the right to freedom of establishment in national and international transport operations

Directive 2003/59/EC of the European Parliament and of the Council of 15 July 2003 on the initial qualification and periodic training of drivers of certain road vehicles for the carriage of goods or passengers

Motor Vehicles – technical and safety conditions:

Council Directive 94/55/EC on the approximation of the laws of the Member States relating to road transport of dangerous goods

Council Directive 96/35/EC on the appointment and vocation qualification of safety advisers for the transport of dangerous goods by road, rail and inland waterways

Council Directive 70/156/EEC of 6 February 1970 on the approximation of the laws of the Member States relating to the type-approval of motor vehicles and there trailers

Council Directive 70/157/EEC of 6 February 1970 on the approximation of the laws of the Member States relating to the permissible sound level and the exhaust system of motor vehicles

Council Directive 70/220/EEC of 20 March 1970 on the approximation of the laws of the Member States relating to the measures to be taken against air pollution by gasses from positive-ignition engines of motor vehicles

Council Directive 70/221/EEC of 20 March 1970 on the approximation of the laws of the Member States relating to liquid fuel tanks and rear protective devices for motor vehicles and there trailers

Council Directive 70/222/EEC of 20 March 1970 on the approximation of the laws of the Member States relating to space for mounting and the fixing of rear registration plates on motor vehicles and there trailers

Council Directive 70/387/EEC of 27 July 1970 on the approximation of the laws of the Member States relating to the doors of motor vehicles and there trailers

Council Directive 70/388/EEC of 27 June 1970 on the approximation of the laws of the Member States relating to audible warning devices for motor vehicles

Council Directive 70/311/EEC of 8 June 1970 on the approximation of the laws of the Member States relating to the steering equipment for motor vehicles and there trailers

Council Directive 71/127/EEC of 1 March 1971 on the approximation of the laws of the Member States relating to the rear-view mirrors of motor vehicles

Council Directive 72/245/EEC of 20 June 1972 on the approximation of the laws of the Member States relating to the suppression of radio interference produced by spark-ignition engines fitted to motor vehicles

Council Directive 72/306/EEC of 2 August 1972 on the approximation of the laws of the Member States relating to the measures to be taken against the emission of pollutants from diesel engines for use in vehicles (and further amendments)

Council Directive 74/60/EEC of 17 December 1973 on the approximation of the laws of the Member States relating to the interior fittings of motor vehicles (interior parts of the passenger compartment other than the interior rear-view mirrors, layout of controls, the roof sliding roof, the backrest and rear part of the seats)

Council Directive 74/61/EEC of 17 December 1973 on the approximation of the laws of the Member States relating to devices to prevent the unauthorized use of motor vehicles

Council Directive 74/297/EEC of 4 June 1974 on the approximation of the laws of the Member States relating to interior fittings of motor vehicles (the behaviour of the steering mechanism in the event of an impact

Council Directive 74/408/EEC of 22 July 1974 on the approximation of the laws of the Member States relating to interior fittings of motor vehicles (strength of seat and their anchorages)

Council Directive 74/483/EEC of 17 September 1974 on the approximation of the laws of the Member States relating to the external projections of motor vehicles (strength of seats and their anchorages)

Council Directive 75/443/EEC of 26 June 1975 on the approximation of the laws of the Member States relating to the reverse and speedometer equipment of motor vehicles

Council Directive 76/114/EEC of 18 December 1975 on the approximation of the laws of the Member States relating to statutory plates and inscriptions for motor vehicles and there trailers, and their location and method of attachment

Council Directive 76/756/EEC of 27 July 1976 on the approximation of the laws of the Member States relating to the installation of lightning and light-signalling devices on motor vehicles and there trailers

Council Directive 76/757/EEC of 27 July 1976 on the approximation of the laws of the Member States relating to reflex reflectors for motor vehicles and there trailers

Council Directive 76/758/EEC of 27 July 1976 on the approximation of the laws of the Member States relating to end-outline marker lamps, front position (side) lamps and stop lamps for motor vehicles and there trailers

Council Directive 76/759/EEC of 27 July 1976 on the approximation of the laws of the Member States relating to direction indicator lamps for motor vehicles and there trailers

Council Directive 76/760/EEC of 27 July 1976 on the approximation of the laws of the Member States relating to the rear registration plate lamps for motor vehicles and their trailers

Council Directive 76/761/EEC of 27 July 1976 on the approximation of the laws of the Member States relating to motor-vehicle headlamps which function as main-beam and/or dipped-beam headlamps and to incandescent electric filament lamps for such headlamps

Council Directive 76/762/EEC of 27 July 1976 on the approximation of the laws of the Member States relating to front fog lamps for motor vehicle and filament lamps for such lamps

Council Directive 77/143/EEC of 29 December 1976 on the approximation of the laws of the Member States relating to roadworthiness tests for motor vehicle and their trailers (and further amendments)

Council Directive 77/389/EEC of 17 May 1977 on the approximation of the laws of the Member States relating to motor-vehicle towing-devices

Council Directive 77/538/EEC of 28 June 1977 on the approximation of the laws of the Member States relating to rear fog lamps for motor vehicles and their trailers

Council Directive 77/539/EEC of 28 June 1977 on the approximation of the laws of the Member States relating to reversing lamps for motor vehicles and their trailers

Council Directive 77/540/EEC of 28 June 1977 on the approximation of the laws of the Member States relating to parking lamps for motor vehicles

Council Directive 77/541/EEC of 28 June 1977 on the approximation of the laws of the Member States relating to safety belts and restraint systems of motor vehicles (and further amendments)

Council Directive 77/649/EEC of 27 September 1977 on the approximation of the laws of the Member States relating to the field of vision of motor vehicle drivers

Council Directive 78/316/EEC of 21 December 1977 on the approximation of the laws of the Member States relating to the interior fittings of motor vehicles (identification of controls tell-tales and indicators)

Council Directive 78/317/EEC of 21 December 1977 on the approximation of the laws of the Member States relating to the defrosting and demisting systems of glazed surface of motor vehicles

Council Directive 78/318/EEC of 21 December 1977 on the approximation of the laws of the Member States relating to the wiper and washer systems of motor vehicles

Council Directive 78/548/EEC of 12 June 1978 on the approximation of the laws of the Member States relating to heating systems for the passenger compartment of motor vehicles

Council Directive 78/549/EEC of 12 June 1978 on the approximation of the laws of the Member States relating to the wheel guards of motor vehicles

Council Directive 78/932/EEC of 16 October 1978 on the approximation of the laws of the Member States relating to the head restraints of seats of motor vehicles

Council Directive 80/1268/EEC of 16 December 1980 on the approximation of the laws of the Member States relating to the fuel consumption motor vehicles

Council Directive 85/3/EEC of 19 December 1984 on the weights, dimensions and certain other technical characteristics of certain road vehicles

Council Directive 86/364/EEC of 24 July 1986 relating to proof of compliance of vehicles with Directive 85/3EEC on the weights, dimensions and certain other technical characteristics of certain road vehicles

Council Directive 88/77/EEC of 3 December 1987 on the approximation of the laws of the Member States relating to the measures to be taken against the emission of gaseous pollutants from diesel engines for use in vehicles (and further amendments)

Council Directive 89/297/EEC of 13 April 1989 on the approximation of the laws of the Member States relating to the lateral protection (side guards) of certain motor vehicles and their trailers

Council Directive 89/459/EEC of 18 July 1989 on the approximation of the laws of the Member States relating to the tread depth of tyres of certain categories of motor vehicles and their trailers

Council Directive 91/226/EEC of 27 March 1991 on the approximation of the laws of the Member States relating to the spray-suppression systems of certain categories of motor vehicles and their trailers

Council Directive 91/671/EEC of 16 December 1991 on the approximation of the laws of the Member States relating to compulsory use of safety belts in vehicles of less than 3,5 tonnes (and further amendments)

Council Directive 92/6/EEC of 10 February 1992 on the installation and use of speed limitation devices for certain categories of motor vehicles in the Community

Council Directive 92/21/EEC of 31 March 1992 on the masses and dimensions of motor vehicles

Council Directive 92/22/EEC of 31 March 1992 on safety glazing and glazing on motor vehicles and their trailers

Council Directive 92/23/EEC of 31 March 1992 relating to tyres for motor vehicles and their trailers and to their fitting

Council Directive 92/24/EEC of 31 March 1992 relating to speed limitation devices or similar speed limitation on-board systems of certain categories of motor vehicles

Council Directive 92/114/EEC of 17 December 1992 relating to external projections forward of the cab’s rear panel of motor vehicles

Directive 9/20/EC of the European Parliament and the Council of 30 May 1994 relating to the mechanical coupling devices of motor vehicle and their trailers and their attachment to those vehicles

Directive 95/28/EC of the European Parliament and the Council of 24 October 1995 relating to the burning behaviour of materials used in the interior construction of certain motor vehicle

Directive 96/27/EC of the European Parliament and the Council of 20 May 1996 on the protection of occupants of motor vehicles in the event of a side impact and amending Directive 70/156/EEC

Directive 96/79/EC of the European Parliament and the Council of 16 December 1996 on the protection of occupants of motor vehicles in the event of a side impact and amending Directive 70/156/EEC

Directive 97/27/EC of the European Parliament and the Council of 22 July 1997 relating to the masses and dimensions of certain categories of motor vehicles and there trailers and amending Directive 70/156/EEC

Council Directive 96/53/EC of 25 July 1996 laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international traffic (and further amendments)

Council Directive 96/96/EC of 20 December 1996 on the approximation of the laws of the Member States relating to roadworthiness test for motor vehicles and their trailers, as amended (and further amendments)

Council Directive 98/76/EC of 1 October 1998 amending Directive 96/26/EC on admission to the occupation of road haulage operator and road passenger transport operator and mutual recognition of diplomas, certificates and other evidence of formal qualifications intended to facilitate for these operators the right to freedom of establishment in national and international transport operations

Council Directive 1999/37/EC of 29 April 1999 on the registration documents for vehicles (and further amendments)

Council Directive 96/914 on the minimum level of training for some road transport drivers (and further amendments)

Council Decision 93/704 on the creation of a Community database on road accidents

Council Directive 91/439 on driving licences (and further amendments)

Council Directive 92/6 on installation and use of speed limitation devices for certain categories of motor vehicles (and further amendments)

Council Directive 91/671 on the approximation of the laws of the Member States relating to compulsory use of safety belts in vehicles of less than 5 tons (and further amendments)

Directive 2000/30/EC of the European Parliament and of the Council of 6 June 2000 on the technical roadside inspection of the roadworthiness of commercial vehicles circulating in the Community

Directive 2006/126/EC of the European Parliament and of the Council of 20 December 2006 on driving licences (Recast).

Case Study “Impact of EU accession on the air carrier market structure, Hungary and Latvia”

By:

COWI

1. Introduction

This case study "Development of the market of air carriers in NMS", deals with market opening and competition in Hungary and Latvia before and after the EU accession.

Air transport has increased markedly in Hungary, Latvia and other NMS over the last 15 years, partly because of the increasing integration with the rest of Europe, partly because of the growing level of income, and partly because of increased choice of destinations and lower prices of air fares caused by greater emphasis on market competition for air transport.

The EU regulation of the markets for air transport has increasingly focused on competition by requiring that member states abolishes regulation that discriminates between national and carriers based in other EU countries.

In relation to the accession it should be noted that the deregulation of air transport may not necessarily be directly connected to the EU enlargement. Notably the Czech Republic made significant liberalisations in the Czech market for air transport as early as 1996.

2. EU Acquis in the air carrier sector

The EU regulation on the functioning of the air transport market is developing steadily towards more and more focus on market competition. The "third package" implemented in1992 has three main parts:

- Regulation (EEC) No 2407/92 describes the **community licence**: the market is open to all airlines which hold a Community air carrier's licence. For a company to obtain this licence, most of its capital must be held by Member States or nationals of the European Union. The latter must also exercise effective control over the company. The technical capabilities and financial capacity of the companies concerned are sanctioned by means of national certificates.

- Regulation (EEC) No 2408/92 lays down the **Freedom of access to the market**. This text opened up all international air routes in the European Union to all companies which hold a Community licence without any restrictions as from 1 January 1993. Since April 1997, unconditional access to all domestic markets has been granted to all airlines in the European Union.

- Regulation (EEC) No 2409/92 stipulates the **freedom with regard to fares and rates** which is an essential part of freedom of access to the Community market. No longer are airlines required to submit their fares to the national authorities for approval.

Further regulations describe limitations to state aid and the abolishment of the block exemption air carrier consultations as distortions of the competition. More regulations also describe exemptions on internal market requirements concerning Public Service Obligations (PSO), although these are of lesser importance for air transport than for other modes. Other regulations of lesser importance to the market developments also cover safety standards and air traffic control etc.

As these regulations apply to all Member States, they were also to be implemented in the national regulations of the accession states. The regulations do not specify that any particular new public bodies must be established. In general, the administration of community licenses, access to market and freedom with regard to prices can be undertaken by existing public bodies taking care of air transport regulation.

3. The expected impacts

The air carrier industry is characterised by very large fixed costs of repaying and maintaining aircrafts, while the short run marginal cost of carrying an extra passenger is very small. Further, product differentiation is not easy, and due to the Internet and travel agencies the prices are relatively transparent, though the pricing structure remains complex. Competition in the markets for air transport can be fiercely centred on lowering costs and increasing capacity utilisation.

Incumbent national flag carriers have long been characterised by the relatively high costs of maintaining a large fleet and a wide network of routes with varying degrees of demand. The liberalisation process in EU15 has already caused emergence of low cost carrier (LCC) alternatives, e.g. Ryan Air and easyJet. These focus almost exclusively on point-to-point routes, allowing a great deal of standardisation in their fleets. Because of their low fares these carriers have both generated new passengers, and captured passengers from the incumbent carriers.

The same impacts must be anticipated for the liberalisation of the EU10 markets for air carriers.

4. Implementation process

Hungary

The implementation of the liberalization in the Hungarian air sector was started between 2002 and 2003. A large number of stakeholders were involved in the discussion about the implementation of the "third package" in Hungary. The arguments in favour and against the liberalization brought forward by Hungarian parties were nearly balanced. During the discussions about the EU accession, Hungary asked for derogation of the regulation about free access to the market (2408/92) until 2005, with reference to the problematic financial situation of the international airlines among others. However this demand was only accepted until the end of the accession process.

Beside the mentioned barrier - Hungary's air sector had another weak point: due to the high proportion of the aircrafts operating with high noise level, Hungary had to ask for further derogation (directive no. 92/14[1]) not to lose market share. The derogation was accepted on the aircrafts registered in Azerbaijan, Kazakhstan, Moldova, the Russian Federation, Turkmenistan and Ukraine.[2]

The financial support was rather allocated to infrastructural development [e.g.: radar, Püspökladány], than to the regulation processes. No requests for e.g. twinning in the administrative public bodies were asked.

Latvia

The major Latvian air carrier, Air Baltic, was established in 1995 as a joint venture between SAS and the Latvian state. This link has probably eased the Latvian air carrier's market position in connection with the Accession and the liberalisation process, as the relationship with SAS has brought improved practices to Latvian Air Carrier market.

EEC regulations 2407/92 and 2408/92 have been implemented into Latvian Law by the amendments to "Law on Aviation" on December 22, 2005. Afterwards on March 21, 2006 there were prepared and announced the Regulations of the Cabinet of Ministers No.218 "Rules regarding the air carrier of passengers, baggage and freights"[3] issued in accordance with the Law on Aviation, Clause 84.

In order to implement the state policy in the field of civil aviation security providing the implementation of standards regards the quality of flights and security in accordance with the international norms and EU norms there is operating the Civil Aviation Agency since 2006 in Latvia. The regulation of the market for Air Carriers is only a small part of aviation regulation, which also includes among other safety and security.

5. Realised impacts

The air transport markets in Hungary and Latvia have experienced a significant growth in the number of passengers since the accession. Also, new air carriers have appeared in the two countries. An analysis from Association of European Airlines (AEA) concerning the European Enlargement shows great detail about the seats on offer in a given week in the three years around the accession, 2003-2005.[4]

In **Hungary**, the flag carrier Malev have experienced a constant number of seats on offer in the period 2003-2005, while, the AEA member air carriers in Hungary experienced a growth of app. 20 %. The LCC's (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 app. 45 %. Together, the AEA member carriers and the LCC's increased the seats on offer in Hungary with 100 %. These numbers suggest that the

[1] This regulation concerns jet aircraft noise, which is not in the core part of the subject of this case study.
[2] Annex X of the Treaty of Accession, 2003, chapter 6.2.
[3] See http://www.likumi.lv/doc.php?mode=DOC&id=131798
[4] AEA Source 2/2005: "European Enlargement – One year on", http://www.aea.be/aeawebsite/webRSC/source/Source_200502.pdf

accession have strongly benefited air passenger choice in Hungary. Further, prices for air travel have decreased after the liberalisation, which is a strong consumer benefit. The sharply decreasing market share of Malev suggests that benefits experienced travellers to Hungary might not have happened to the same degree without the liberalisation. After 2005 Malev has been able to stop the decline in its market share. The improved competitiveness is – arguably – also an impact of the liberalisation.

Finally, Budapest Airport has been successfully privatised. While this is not directly a requirement of the "Third Package", it certainly demonstrates momentum of the liberalisation process in the air transport sector.

In **Latvia**, the seats on offer increased with 200 % between 2003 and 2005. Most of this increase was found among LCC's (primarily RyanAir) while Air Baltic also saw a strong increase in supply. The fact that Air Baltic has been able (to some degree) to defend its market share in the presence of a quite strong LCC competitor indicates that many of the beneficial effects of liberalisation (in particular cost rationalisation) would have happened regardless of the Accession. Without preceding years of cost rationalisation (probably with the help of SAS), Air Baltic would probably not have been able to manage the competition with the LCC's to the same extent.

The impact investigated in this study concerns the accession to EU. Some accession countries, e.g. the Czech Republic, liberalised their air transport market before the EU accession. Thus, in the Czech case, the accession in itself had little impact on the market for air transport. Rather, the anticipated benefits (e.g. increased tourism) were so large that the liberalisation would probably have been carried even without of the accession process.

The example from Hungary shows that the accession did affect the pace of the liberalisation process, while the Latvian and Czech examples shows that the liberalisation process in the air carrier market to some extent was already happening independently of the EU accession.

The liberalisation of the air carriers markets is an ongoing process where the changing market environments gradually advances the needs for further deregulation, e.g. LCC growth and the need for changes in landing slot allocation procedures.

6. Benefits and costs

Benefits

It has not been possible to compile a usable and consistent dataset concerning prices, but the strong increase in seat offering indicates both lower prices and that passenger choice has been greatly enhanced by the liberalisation of the Hungarian and Latvian air transport market. However, as the Czech example shows, these strong benefits of liberalisation mean that air transport liberalisation in some cases may not be a direct consequence of the Accession, but might have happened anyways.

Costs

The EU accession and the liberalisation have caused a strong growth in air transport. While this is a significant benefit for EU firms and citizens, it also causes some external

costs. This includes increased emissions of Greenhouse Gasses[5] and noise around airports. Further the increase in traffic contributes to the congestion of European airspace and the important European air traffic hubs. The public administration of the EU regulations concerning the Air Carrier markets have been altered, but this has not brought about noticeable extra costs, as the nature of the administrative tasks are approximately the same as before the accession.

Spin-offs

The increased accessibility caused by increased choice and lowered air fares is beneficial to tourism and business relations. This will cause new and better paid jobs as well as economic growth.

7. Process evaluation and comments

The EU accession and the liberalisation of the air carrier market have contributed to a strong growth in air passenger traffic in Hungary and Latvia. The passengers have been offered wider choice and lower fares. While increased use of air transport does also bring about its own problems of congestion and environmental issues, the widened use of air transport, also before the Accession, shows that air transport is a vital part of the European integration process. In this respect the Accession and the liberalisation have been a clear success.

Lessons learned

The liberalisation of the market for air carriers has brought about huge benefits to passengers trough lower fares and increased seat capacity. As with most liberalisations, where barriers to entry are broken down, this may bring problems to the established firms, i.e. the national carriers, such as loss of market share, decreased profitability etc. However, when the operations of e.g. a national carrier shrink in a growing market, its employees and assets typically find jobs and use with other air carriers. This is, therefore, from a general point of view only beneficial in terms economic efficiency, and does not incur job losses.

Generalisation to EU10 and Candidate and Acceding countries

The strong consumer benefits of air carrier liberalisation can be expected in any country with protective attitudes towards an incumbent flag carrier. However, as the consumer benefits from liberalisation of the air carrier market are so clear, the liberalisation is happening already in many countries. Thus, the beneficial effects may have been realised to some extent already, depending on the particular air carrier competition policies of the country in question.

8. References

The following references were used for this case study report:

- AEA Source 2/2005: "European Enlargement – One year on", http://www.aea.be/aeawebsite/webRSC/source/Source_200502.pdf

[5] The emission of greenhouse gasses for intra-Community air transport will be regulated through the European Emission Trading System from 2011, whereby the external costs of emissions is internalised.

- Regulation (EEC) No 2407/92 of 23 July 1992 on licensing of air carriers
- Regulation (EEC) No 2408/92 of 23 July 1992 on access for Community air carriers to intra-Community air routes
- Regulation (EEC) No 2409/92 of 23 July 1992 on fares and rates for air services.
- Telephone interview 15. June 2007 with Mr. Máté Gergely, DG-TREN on the Hungarian liberalisation process
- "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" (6241/03), DG E I

Case Study "Strategic position of the road transport sector of Hungary"

By:
COWI Hungary

1. The case

The subject of this case study is the road transport sector of Hungary before and after the EU-accession, focusing on the impacts on the recently opened market and on competition. As a special part of the road transport, combined transport is also briefly discussed.

The study presents an overview of the impacts on market opening and regulation and the changes in the number and size of operating companies, thus what was the benefits and side effects of liberalisation.

Enforcement is an important issue regarding compliance of the Aquis Communitaire which is discussed as well as the impact on the road infrastructure and the use of road charging.

The accession has affected the quantity and the modal split of freight transports very significantly, especially the use of combined transport.

2. EU Acquis on road transport

The road transport Acquis requires a completely liberalised road freight trans-port sector market as well as liberalised international bus and coach transport.

The main legislation that Hungary needed to adopt within commercial road transport are summarised in the overleaf table from the EU Transport Acquis.

The key issues are:

- Market access for goods and passenger transport
- Prices and conditions of transport
  - Technical and safety conditions
  - Technical conditions: weights and dimensions, speed limit devices, road worthiness testing
  - Safety conditions: driving licences, seat belt use
  - Dangerous goods transport
- Social conditions :
  - maximum drivers hours, rest periods and equipment (tachograph)
  - Qualitative standards for access to the profession and standards for drivers training.
- Fiscal conditions (charging for use of infrastructure)

These regulations have been put in place to ensure a liberalised road freight transport market (market access) with fair competition (vehicles and drivers are approximately working under same conditions) and to ensure road safety.

Market access goods transport

- Council Regulation (EEC) No 881/92 of 26 March 1992 on access to the market in the carriage of goods by road within the Community to or from the territory of a Member State or passing across the territory of one or more Member States (and further amendments)
- Council Regulation (EEC) No 3118/93 of 25 October 1993 laying down the conditions under which non-resident carrier may operate national road haulage service within a Member State (and further amendments)
- Regulation (EEC) No 484/2002 of the European Parliament and the Council of 1 March 2002 on drivers certificate (and further amendments)
- First Council Directive 62/2005 on the establishment of certain common rules for international transport (carrying of goods by road for hire or reward), Official journal L 170, 23/07/1962, p. 2005 - 2006 , modified by: - Council Directive 74/149/EEC of 4 March 1974 amending the first Directive 62/2005 on the establishment of certain common rules for international transport (carriage of goods by road for hire or reward), Official journal L 084, 28/03/1974, p. 0008 - 0009
- Council Directive 80/49/EEC of 20 December 1979 amending the First Directive 62/2005 on the establishment of common rules for certain types of carriage of goods by road between Member States, Official journal L 018, 24/01/1980, p. 0023 - 0023 (and further amendments)
- Council Directive 83/572/EEC of 26 October 1983 amending Directive 65/269/EEC concerning the standardization of certain rules relating to authorizations for the carriage of goods by road between Member States and the First Council Directive 62/2005 of 23 July 1962 on the establishment of common rules for certain types of carriage of goods by road between Member States, Official journal L 332, 28/11/1983, p. 0033 - 0036
- Council Directive 84/647/EEC of 19 December 1984 on the use of vehicles hired without drivers for the carriage of goods by road, Official journal L 335, 22/12/1984, p. 0072 – 0073 (and further modifications and amendments)
- Commission Regulation (EC) 3298/94 of 21 December 1994 laying down detailed measures concerning the system of Rights of Transit (Ecopoints) for heavy goods vehicles transiting through Austria, established by Article 11 of Protocol nr. 9 to the Act of Accession of Norway, Austria, Finland and Sweden, Official journal L 341, 30/12/1994, p. 0020 – 0036 (and further modifications and amendments)

Safety conditions

- Directive 2006/126/EC of the European Parliament and of the Council of 20 December 2006 on driving licences.
- Council Directive 91/439/EEC of 29 July 1991 on driving licences, Official journal L 237, 24/08/1991, p. 0001 – 0024, modified by: - Council Directive 94/72/EC of 19 December 1994 amending Directive 91/439/EEC on driving licences, Official journal L 337, 24/12/1994, p. 0086 - 0086 (and further amendments)
- Commission Decision 2000/275/EC of 21 March 2000 on equivalences between certain categories of driving licences (Text with EEA relevance), Official journal L 091, 12/04/2000, p. 0001 - 0050 (and further rectifications)
- Council Directive 91/671/EEC of 16 December 1991 on the approximation of the laws of the Member States relating to

Prices and conditions of transport

- Council Regulation (EEC) 2831/77 of 12 December 1977 on the fixing of rates for the carriage of goods by road between Member States, Official journal L 334, 24/12/1977, p. 0022 - 0028 (and further amendments)
- Council Regulation (EEC) 4058/89 of 21 December 1989 on the fixing of rates for the carriage of goods by road between Member States, Official journal L 390, 30/12/1989, p. 0001 – 0002
- Directive 2004/52/EC of the European Parliament and of the Council of 29 April 2004 on the interoperability of electronic road toll systems in the Community (Text with EEA relevance), Official journal L 166, 30/04/2004, p. 0124 - 0143

Technical conditions

- Council Directive 89/459/EEC of 18 July 1989 on the approximation of the laws of the Member States relating to the tread depth of tyres of certain categories of motor vehicles and their trailers, Official journal L 226, 03/08/1989, p. 0004 – 0004
- Council Directive 92/6/EEC of 10 February 1992 on the installation and use of speed limitation devices for certain categories of motor vehicles in the Community, Official journal L 057, 02/03/1992, p. 0027 - 0028 (and further modifications)
- Council Directive 96/53/EC of 25 July 1996 laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international traffic, Official journal L 235, 17/09/1996, p. 0059 – 0075(and further modifications and amendments)
- Council Directive 96/96/EC of 20 December 1996 on the approximation of the laws of the Member States relating to roadworthiness tests for motor vehi-cles and their trailers, Official journal L 046, 17/02/1997, p. 0001 – 0019 (and further adaptations)
- Council Directive 1999/37/EC of 29 April 1999 on the registration documents for vehicles, Official journal L 138, 01/06/1999, p. 0057 – 0065 (and further adaptations)
- Directive 2000/30/EC of the European Parliament and of the Council of 6 June 2000 on the technical roadside inspection of the roadworthiness of commercial vehicles circulating in the Community (and further adaptations)

Social conditions

- Directive 2003/59/EC of the European Parliament and of the Council of 15 July 2003 on the initial qualification and periodic training of drivers of certain road vehicles for the carriage of goods or passengers, amending Council Regulation (EEC) No 3820/85 and Council Directive 91/439/EEC and repealing Council Directive 76/914/EEC
- Directive 2006/22/EC of the European Parliament and of the Council of 15 March 2006 on minimum conditions for the implementation of Council Regulations (EEC) No 3820/85 and (EEC) No 3821/85 concerning social legislation relating to road transport activities and repealing Council Directive 88/599/EEC
- Council Directive 96/26/EC of 29 April 1996 on admission to the occupation of road haulage operator and road passenger transport operator and mutual recognition of diplomas, certificates and other evidence of formal qualifications intended to facilitate for these operators the right to freedom of establishment in national and international transport

compulsory use of safety belts in vehicles of less than 3,5 tonnes, Official journal L 373, 31/12/1991, p. 0026 – 0028 (ad further modifications) • Council Directive 94/55/EC on the approximation of the laws of the Member States relating to road transport of dangerous goods (and further amendments) • Council Directive 95/50 on uniform procedures for checks of the transport of dangerous goods by road • Directive 98/91/EC of the European Parliament and of the Council of 14 December 1998 relating to motor vehicles and their trailers intended for the trans-port of dangerous goods by road and amending Directive 70/156/EEC relating to the type approval of motor vehicles and their trailers, Official journal L 011, 16/01/1999, p. 0025 - 0036	operations (and further amendments) • Commission Decision 73/318/EEC of 4 October 1973 in connection with social legislation relating to road transport refusing approval of the use of the Swiss individual control book, Official journal L 291, 18/10/1973, p. 0035 - 0035 • Directive 2002/15/EC of the European Parliament and of the Council of 11 March 2002 on the organisation of the working time of persons performing mobile road transport activities, Official journal L 080, 23/03/2002, p. 0035 – 0039 • Directive 2003/59/EC of the European Parliament and of the Council of 15 July 2003 on the initial qualification and periodic training of drivers of certain road vehicles for the carriage of goods or passengers **Fiscal conditions** • Directive 1999/62/EC of the European Parliament and of the Council of 17 June 1999 on the charging of heavy goods vehicles for the use of certain infra-structures, Official journal L 187, 20/07/1999, p. 0042 - 0050

3. The expected impacts

The accession negotiations with regard to road transport were intense, because of concerns within the EU-15 that their markets would be overrun by cheap hauliers from NMS.

However, also a number of benefits were anticipated as indicated in the Halcrow Fox and NEI[1] study. These included:

- Improved quality of transport services in e.g. Hungary as EU legislation will increase cost of market entry and operation for domestic road transporters. This is expected to force out the low quality part of the market to either increase quality or to go put of business.
- Increased competition leading to improvements in operating efficiency.
- Increased market size due to removal of bilateral restrictions, which could be of the size of 5%.
- Time and cost saving due to reduced delays at borders leading to reduced tariffs. Before accession waiting times at borders between NMS and EU could be from 1,5 to 8 hours, these were expected to disappear after accession.

The fear was e.g. because the average wage costs per truck of an EU-15 operator were 5 times those of a NMS haulier[2] and as it was expected that compliance with even less stringent existing rules than EU requirements was poor in some countries, especially among smaller operators and drivers. The concern was that NMS drivers would substitute more expensive EU-15 drivers or even that NMS companies would take a large share of the market. This was both due to lower wages and e.g. longer working hours of NMS drivers.

Additionally maintenance costs for trucks were lower in NMS due to lower technical requirements to road worthiness and emission standards.

[1] International Road freight Transport (Halcrow Fox/ NEI: Costs and Benefits of Enlargement (CBET), 1999
[2] International Road freight Transport (Halcrow Fox/ NEI: Costs and Benefits of Enlargement (CBET), 1999

To ensure fair competition and safety the NMS should during the accession process fulfil EU requirements through introduction of social legislation, speed limiters and proper enforcement of EU technical requirements. The impact of legislation on road transport is thus expected to be:

- Shorter working hours of NMS drivers
- Vehicles fitted with tachographs
- Vehicles fitted with speed limiters
- Replacement of vehicles because of failure to pass emission tests and road worthiness tests
- Safer transport
- Environmentally cleaner transport
- Higher maintenance costs for operators to fulfil new technical standards.

As a result of especially the implementation of technical, environmental and social conditions, the costs of domestic road transport and bus passenger transport were expected to increase. These effects were expected to be a rise in costs of e.g. up to 20-25% per kilometer for domestic road freight transport and for bus passenger transport 5%.

Expected impact on combined transport

The combined transport in Hungary was primarily container transport. The RO-LA service (trucks transported by special trains) appeared in the early nineties in Hungary, spreading from Austria – where most of the transit trucks had to "transfer" to train or to waterway. In Hungary there are three RO-LA terminals: Sopron (near to the Austrian border), Budapest-Nagytétény and Szeged (near to the Serbian and Romanian border). The terminals were located near to the largest traffic flows.

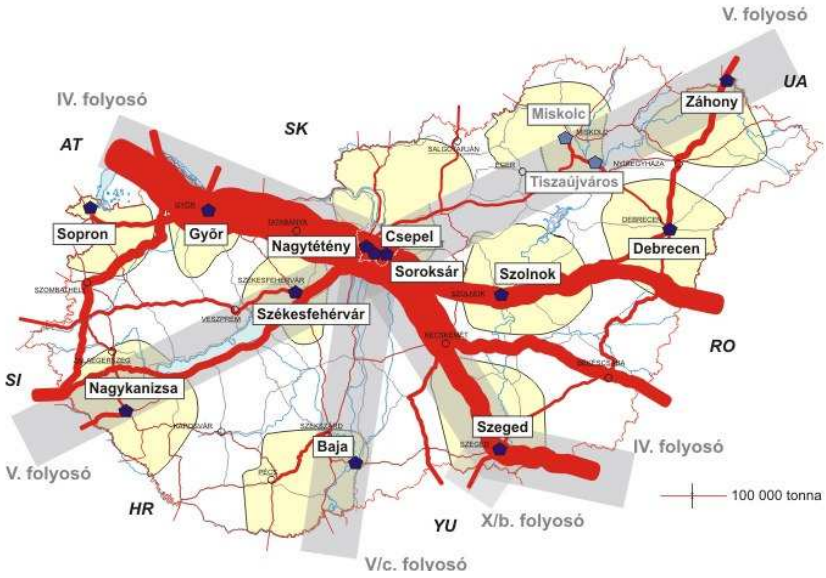

Figure 3 TEN corridors and road transit flow in Hungary (Institute for Transport Scineces)

The expected impact was that the environment-friendly combined transport continues to grow. Several investments in the terminals were made, partly funded by the state.

Expected impact on infrastructure

According to the former Hungarian rules the maximum axle load of freight vehicles was 10 t. The accession has brought the EU regulation with 11,5 t/axles, which will have a strong bearing on the infrastructure. Hungary has expected EU funding to strengthen the road network for the higher loading.

4. Implementation process and status

4.1 Abolishment of contingent-system

Before accession Hungarian transport companies were not allowed to enter the EU without a special permit. Due to the limited number of permits only 5 % of the companies could go abroad regularly – mostly by 20 t or bigger lorries. The contingents limited both the Hungarians and the foreign countries, since the EU companies had got the same number of permits to Hungary. The number of permits was determined by the Hungarian government at a level of approx. 5000 vehicles.

The abolishing of the contingent-system caused an immediate increase of companies operating internationally right after the accession.

4.2 Harmonization

Harmonization of rules has been completed, but the implementation is slow because of the lacking support. The representation of the transport sector in the government has fallen in the recent years: there was a separate Ministry of Transport, now it is together with the Economics. As a consequence the long-term transport policy is not sufficiently emphasized. The Hungarian Road Transport Association was involved in the process of implementation but the proposed long term strategy was detained.[3]

There was minor EU assistance (in the last moment) to help the process of achieving the result of the reform in terms of education. Appr. 3% of the haulier companies took part on the trainings held by EU. Technical/financial support on time could have supported the process.

4.3 Enforcement

While the EU legislation on road safety is adequate, penalties for the violation of road safety regulation in Hungary were almost non-existent until 2006. Enforcement failed due to lack in capacity and to the low level of fines. Some problems occurred in enforcing the penalties from foreign hauliers, too. After the accession Hungary has become the Eastern border of the EU. The border control/customs did not handle the licenses/permissions of the East European (Russia, Belarus and Ukraine) hauliers, who used the same licenses many times.

However, the level of fines has increased recently[4] and the implementation has become more efficient.

[3] Interview with Gábor Csányi, Hungarian Road Transport Association
[4] 57/2007 (21st March) Regulation of the government on fines in case of violation the regulations of road freight transport and passenger transport

VPOP (Hungarian Customs And Finance Guard) has 300 qualified controllers (200 more are to be qualified soon), NKH (National Transport Authority) has got 150 people.

The staff of the Police and Border Guard is not highly qualified. They do not control the tachographs but only the compliance with the traffic rules.

NKH and OMMF (Hungarian Labour Inspectorate) has the right to control hauliers onsite as well.

5. Realised impacts

The road transport sector is influenced by the national and EU regulation in many terms, which are often changing. The main impacts on the road transport sector are:

- National ”convergence” program and economic policy
- Uncertainty of fuel prices and fuel excise duties
- New road user charges in EU and Hungary (2006/38/EC)(interoperability of the different systems, which could lead to different charges)
- Lack of drivers and problem of the new supplies – training (2003/59/EC)
- New driving and resting time rules (561/2006/EC)
- EU revision of access to the market and profession
- Shift of the production to East. There is no forecast neither for the impacts of the increased import from Far East, nor for the impacts of the NMS (ROM, BUL, later may be TUR) hauliers
- Cabotage opening from 2009 (During the accession Hungary has asked for derogation in the terms of cabotage, and newly the Ministry decided to prolong it to the maximal 5 years.)

5.1 Number of companies

The accession has brought a significant increase on international transport, because of the opening of the market. The number of international operating road transport companies has roughly tripled since the accession which resulted in a huge overcapacity and obviously a decrease of the freight rates. The number of domestic transport operators has decreased, while the number of vehicles remained the same (concentration). *(Source: Hungarian Road Transport Association)*

International transport operators in relation to the accession	
Before accession	After accession
2.000 companies	5.000 companies
10.000 vehicles	70.000 vehicles
25.000 intern. registered vehicles	
22.000 road transport permission	
Domestic transport operators in relation to the accession	
Before accession	After accession
25.000 companies	21.420 companies
90.000 vehicles	90.000 vehicles
66 % of companies are capital-scarce, self-employed operators	

There has been a tough market situation, with a hard currency (high rate of exchange of HUF) and the national "convergence"-program[5] at the same time. Middle-sized companies (with 3-20 trucks) do not have sufficient capital to cope with the situation; they are even not able to transform their capital into different business activity (lack of flexibility – lack of education).

There is no data on shares and number of foreign EU companies in Hungary. The big companies (with more than 20 vehicles) are mostly foreign owned, the middle-sized are Hungarian.

A realignment of the market is expected within 1-2 years: many companies will become subcontractors to the bigger players and consequently there will be a further concentration of the market. Many of the middle-sized companies will soon get bankrupt. Specialization is an advantage and specialized companies have a better chance to live through.

The market share of Hungarian transport companies on the EU market has increased since the accession and – according to the expectations of the Road Transport Association – it will maintain this present level if the costs do not increase.

5.2 Competition from other NMS

Accession of Bulgaria and Romania has lead to further capacity increase. Cost levels in Romania and Bulgaria are significantly lower than in Hungary, and the Romanian and Bulgarian hauliers are therefore strong competitors for the Hungarian operators.

According to a KTI study Slovakian hauliers have a 7-8% cost advantage, because of the different tax-system only.

The market (the Road Transport Association at least) does not count on Turkey's membership soon. However, the possible accession of Turkey, which has a large road transport sector, is a threat to Hungary. Without any restrictions on Turkish transport companies, the Hungarian road network would very soon be overloaded.

5.3 Cleaning up the market

Due to the weak enforcement the grey/black (illegal) hauls[6] caused market losses for the Hungarian hauliers, and they asked for stricter control – obviously in a fair manner - in order to filter out the companies working illegally and to ensure equal competition. Now these illegal hauls are significantly decreasing, which is held to be an impact of the accession.

According to the Road Transport Association the control of the vehicles on the roads is more or less fair in Western Hungary, regarding the nationality of transporters (52% of the controlled trucks are from abroad in Győr), but very unfair in Eastern Hungary (15%

[5] National "convergence" program: an action package of the Hungarian government aiming to decrease the negative trends in national economy and to get back to general EU trends. It consists of restrictions, restructuring of the public services, changes in the tax system and other issues.
[6] Illegal haul: violating the regulations, for example: overloaded vehicle, over-driven personal, goods without the necessary permits, tachograph disuse etc.

respectively in Debrecen). The reasons are mainly language problems and the low level of qualification among the staff of control authorities. The Association says that the foreign vehicles are controlled strictly in the OMS also, thus, 50-50% should be reached as agreed between the government and the Road Transport Association in 2005.

The level of fines has increased although they don't reach the severity of other member states. For example in Poland, Germany, Austria if the truck's technical condition is not appropriate then there is not only a penalty but even an immediate service constraint. In Hungary there is no immediate service constraint.

5.4 Social conditions

The new regulation for driving time caused an increase of operating cost level.

There is a lack of drivers on the job market. Previously the job as a driver had a very high prestige (till the end of the 80's) as drivers could travel abroad. Until 1989 there were good opportunities to get professional driving licence for trucks in the army at a very cheap price. The price level of professional driving courses has increased significantly (from 2000 HUF to 600.000 HUF) since then, e.g. due to larger demands on driving licenses as part of the EU Acquis. The transport companies do not support the driver education, as this will result in increasing personal costs.

5.5 Environment

Before accession the Hungarian permission-system was the most modern one in Europe in terms of favouring environmental friendly vehicle fleets. The international permits have been tendered each year, regarding also the environmental state of the applicant's fleet. This stimulated investment into modern vehicle fleets. In 2004 2/3 of the trucks were EURO 3, 1/3 was EURO 2. However, for the capital scarce companies' bank loans for new vehicles have constantly been causing further financial problems.

Thus, differing from other NMS, the accession did not impact on the environmental aspects.

5.6 Combined Transport

Combined transport was not only subsidized in order to save the environment, but also to support international road transport companies that were not able to get permissions from the contingent to the OMS. Therefore Hungarian clients disappeared after the accession, and the terminal in Sopron (the Austrian border) had to be closed.

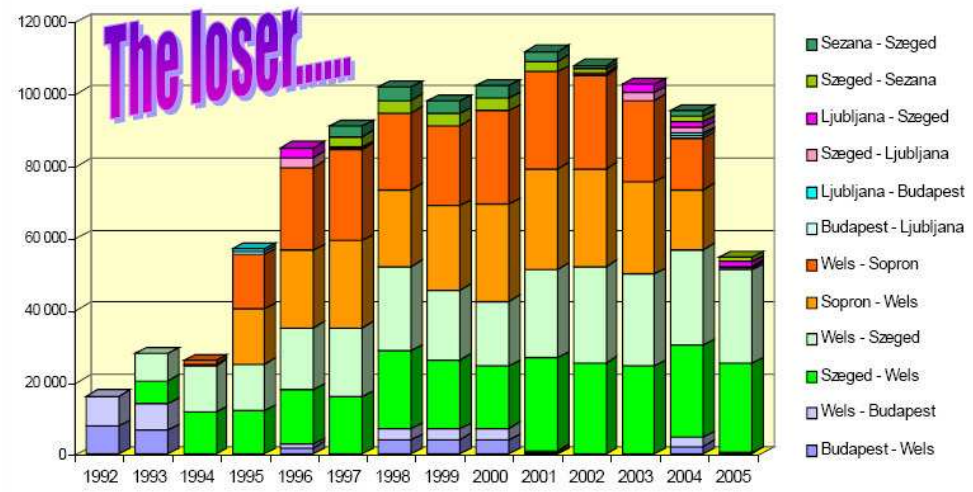

Figure 4 The number of trucks forwarded by train, relations (J. Berényi, KTI)

Between 2004 and 2007 80% of the clients were Bulgarian and Romanian (about 60.000 lorries). They disappeared in 2007, switched to the road and put an enormous load onto the Hungarian road network. At the terminal Szeged several RO-LA trains were taken out of the schedule. Now Turkish lorries make up the vast majority because of the quotes/road tolls.

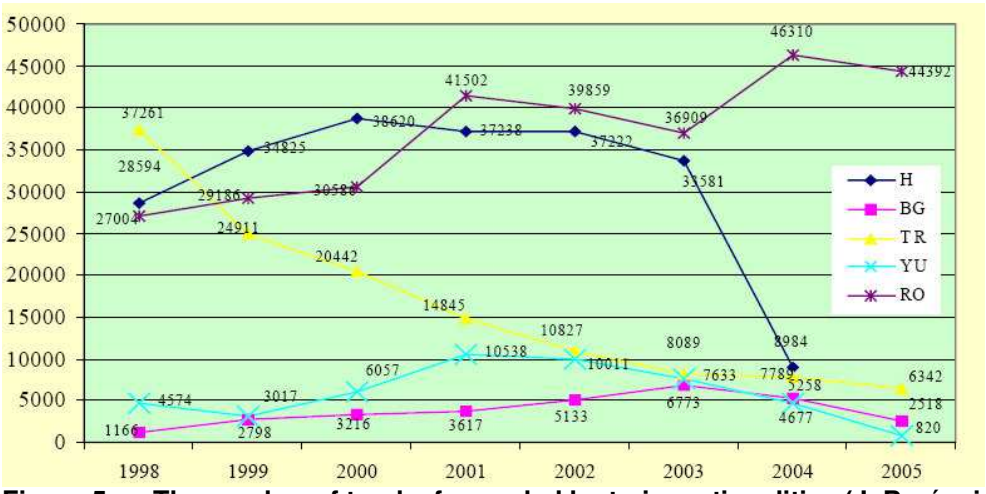

Figure 5 The number of trucks forwarded by train, nationalities (J. Berényi, KTI)

There is a program to decrease the subsidy for combined transport from EUR 3.5 million to zero during a period of 3 years. On the other hand the cost of road transport will increase due to intensified controls (within the 3 year period).

However, if the road pricing would not be introduced on a significant level, and the railway operators wouldn't work more effectively, solving the problems of interoperability with European systems (locks, driver requirements) – the combined transport will disappear from Hungary.

5.7 Road pricing

The internalisation of external costs is an important mean of shifting freight transport towards more sustainable modes. This involves a comprehensive scheme of road

pricing, applied in the most old member states. Hungary is trying to adopt these systems.

In the nineties there were several motorways built and operated by different concession companies. The following figure shows how the tolls per kilometres differed from each other – and from EU average. In recent years the government introduced the vignette system, and gradually all the motorways have become part of this system. But the level of the vignette prices (yellow line) is much less than the EU average, and the vignette system only applies to motorways. Thus, the responsible authority plans to extend the road charging for other roads, and to converge to the EU average (brown line).

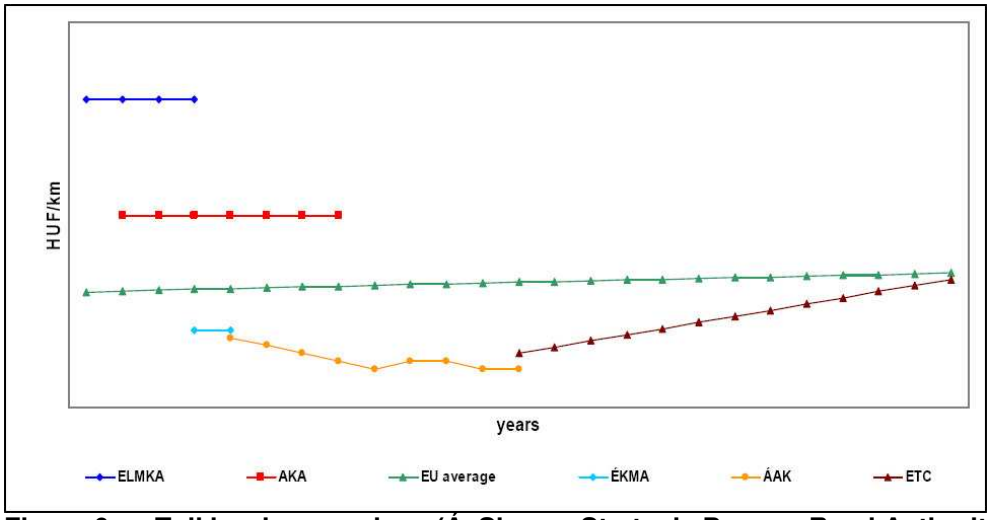

Figure 6 Toll level comparison (Á. Siposs, Strategic Bureau, Road Authority)

6. Negative side-effects

6.1 Not covered external costs

It is generally expected that the EU transport politics will be applied, including an internalization of external cost, which will further increase costs. However, a negative consequence of the accession has been that road transport is actually relatively cheaper, faster and more available, which makes other transport modes less attractive for the time being.

As prices do not reflect the full social cost of transport, demand has been artificially high. „One of the important reasons why imbalances and inefficiencies have arisen is because transport users have not been adequately confronted with the full costs of their activities. If appropriate pricing and infrastructure policies were to be pursued, these inefficiencies would largely disappear over time."[7]

6.2 Increasing road freight transport

The quantity of road freight transport has significantly increased as an impact of the accession. The free flow of persons, goods, knowledge and services, the disappearing

[7] European Transport Policy for 2010: Time to Decide. EU White Paper, 2001.

barriers lead to increasing traffic. The figure below shows the impact of the accession on the number of trucks entering Hungary.

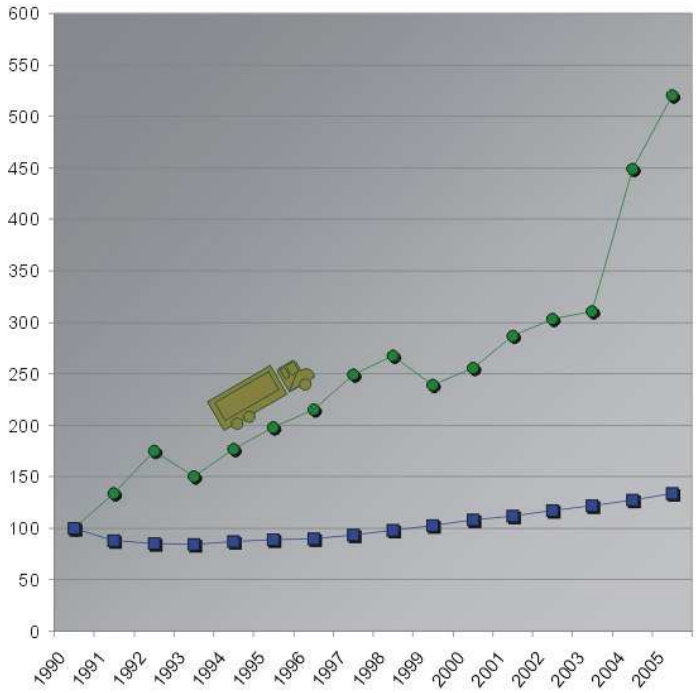

Figure 7 Trucks entering Hungary – versus GDP. 1990 = 100% (A. Lukács, Clean Air Action Group)

Since then, after the accession of Romania and Bulgaria in 2007, the number of goods transporting vehicles passing the border at Nagylak, on TEN corridor IV increased to 238% related to the same period of the previous year.[8]

6.3 Infrastructure overloading

The increasing road freight transport has led to an overloading of the road network, causing traffic jams, pollution, deterioration of the roads and negative effects on road safety.

Due to road charges, hauliers are avoiding the motorways, which is a problem for nearby villages. The responsible authority plans to extend the coverage to the majority of the network and meanwhile to rise gradually the road charges.

The government will need to spend a lot of money, partly funded by EU, to rise the road quality enduring the 11,5 t/axles load.

7. General evaluation

The accession has had a significant impact on market opening and regulation.

The critical point of the implementation proved to be the enforcement. Neither the number and qualification of the controllers, nor the level and collecting of fines were

[8] Gyula Kunos, Border Guards, in Délmagyarország 9th June 2007.

appropriate to the task. Even the transporters have asked for stricter control to “clear up” the market and create fair competition.

The increase in the number of internationally operating companies caused a drastic freight rate reduction in short term and a concentration of the companies in long term. The larger companies became mostly foreign-owned.

The regulations on driving time were new in domestic transport, resulting in higher costs. The replacement of the aged and polluting rolling stock with modern vehicles complying with high emission-standards was completed before the accession.

The former contingent-system disappeared at the accession, and the effect of the present road charging system can not influence the modal split as mentioned in chapter 6.1[9] – so combined transport seems to loose its market.

A negative consequence of the accession has been that road transport is actually relatively cheaper, faster and more available, which leads to significant increase of traffic, and overload of the road network. A lesson could be that the EU should find the means to internalize the external costs of the transport and to protect the sustainable transport modes, according to the transport policy goals.

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Case Study "Alteration of public passenger transport system in Hungary"

By:
COWI Hungary

1. Introduction

This study analyses the impacts of the enlargement on the public transport services and configuration of Hungary. It is dealing mainly with the road sector (bus/coach) and briefly with the rail sector.

The case study reviews the impacts on market opening and regulation, the spreading of the public service contracts and the opportunity of tendering processes as well as what happened to the ownership of the operating companies, impacts on rolling stock and infrastructure. An interesting point is that policy changes in other areas - such as sustainability and access to disabled persons - also had an impact on public transport.

2. The EU acquis for public transport

The current legislation is in practice rather limited in its requirement for opening of public transport markets.

- Regulation 1191/69 sets rules for the content of public transport service contracts that incorporate public service obligations, and for compensation. In principle, this includes public service contracts that are also caught by the public procurement directives. The regulation does not say how the contracts should be awarded.

- Directive 93/38 sets rules for public transport operators awarding contracts, so that they have to follow the competitive tendering rules in the public procurement directives.

- Directive 93/50 sets rules for public bodies awarding contracts, so that they have to follow the competitive tendering rules in the public procurement directives.

Further, a ruling of the European Court of Justice on subsidies for public transport services, which took place in July 2003 (European Court of Justice Decision C 280/00). The Court ruled that public subsidies can be paid without breaking EU competition rules, but only if they are for clearly-defined public service obligations.

In practice, the public procurement directives have not led to widespread use of competitive tendering in the field of public transport due to the various exemptions described above. However, the EC has proposed a new Regulation[1] (to replace 1191/69) that would require the majority of urban public transport services to be opened

[1] COM (2002)107 (amended proposal).

to competition either through free competition or controlled competition. This choice would be left to the authority but the aim of the EC is to improve the quality of public transport services by setting quality requirements. Some services would be excluded: many metro and tram systems, and contracts for low-value routes or networks. The European Parliament has completed its first reading of this proposal (November 2001) and responding to this the European Commission adopted a new proposal in 2002, but they have yet to reach a common position.

3. The situation before accession

Service regulation

The public passenger transport in Hungary was traditionally controlled and owned mainly by the state or by the local governments. The level of service (time tables, routes) and the fares for the international, the long-distance and the regional public transport (scheduled passenger transport) were determined by the Ministry of Transport. Concerning urban public transport the local governments had the same rights and responsibility of service regulation. The areas and competences were split strictly between **local** and **state level**.

Ownership

The bus transport is organized in 24 state-owned local companies ("Volán" companies), mainly according to the county borders. (In some companies the employees have a minority ownership.) These serve the long-distance and the regional transport, and in most cities even local public transport. In the largest cities there are local public transport operators owned by the local municipality: Budapest, Debrecen, Miskolc, Szeged, Pécs and Kaposvár. Especially in the first four cities there are several public transport modes. In Debrecen and Szeged both the local company and the state-owned bus company are operating. The appearance of the **private sector** before the accession has been marginal: there are only some private operators in smaller towns with few buses.

Within passenger transport there are only two railway companies (not counting the narrow-gauge forestry railways): the Hungarian State Railway Company and a smaller Győr-Sopron-Ebenfurth Railway Company, which operates a few lines in Western-Hungary and Austria.

Contracting

The biggest challenge posed on the Public Transport was the demand for contracting and competition. Until 1991 the only authorized operators were by the law the companies founded by the state or by the local governments, but from 1991 the public transport became a concession-based operation (Act on concession, 1991/XVI.). In order to protect the already operating companies, hard terms were established soon (in the Act on Road transport, 1988/I.), which made it very difficult for the authorities to tender the service and for new operators to enter the market.

Example of paradox of market opening and protection

In the nineties there were some experiments to draw other sources into the financing of PT.

*A few private companies had the **concession** for some regional bus lines. The observations were that only rentable lines were taken (increasing the loss of the remainder), and the potential value*

of the state-owned operating companies has decreased, regarding a possible privatisation. So these lines have been taken back at the end of the concession period.

At two regional bus companies (Kapos Volán and Pannon Volán) the divisions serving the urban transport of the towns Kaposvár and Pécs were ***outsourced*** *into new companies, owned together by the state and the local governments. But neither of the owners wanted to invest into the common companies, so the state has passed the shares to the local governments.*

Although in some cases the level of service has become higher, these actions were meant unsuccessful regarding the property of the state. This led to the practice of protecting the market of the state-owned bus companies.

Financing

The operators were obliged to provide the required service, and in case their loss reached an unbearable level, the owner authority compensated to a certain level, according to the possibilities. There were some cross-financings as well: long-distance bus service for urban transport, or goods transport by rail for passenger trains. The first contracts on public service were made only a few years before the accession.

Rolling stock and infrastructure

Due to the lack of funds the rolling stock is aged: the bus fleet is in average 12 years, the railway vehicles 38 years old.[2] The infrastructure was not sufficiently maintained and renewed.

4. Anticipated impacts

There were expectations that some of the competences of the state would be transferred to the regional authorities and that regional Public Transport Associations[3] would be established - in line with EU regional policy and the principles of encouraging decentralisation.

The largest expectations for public transport concerned the **EU funds** facilitating the modernization and reconstruction of the technical background. This included railways, main bus stations, road and rail infrastructure as well as rolling stock.

The anticipated impact concerning market access was to create a controlled market with competition on the prices, but not on parallel and non-efficient service. New market players were expected, with a positive competition on fare and service quality. However the costs of PT services were considered as becoming higher, due to the loss compensation rules.

The PT operators were looking forward to the ensured loss compensation, and were not really afraid of increased competition.

5. The implementation process

Market opening

In passenger transport there were substantial efforts on the side of the government to protect the market and the value of the state-owned operating companies over the

[2] Data of the Volán Association and the MoET

[3] An integrating organisation of responsible bodies and/or operators with the aim of providing PT services for a larger area: an agglomeration or a region. (US: 'Transit Authority', D, A: 'Verkehrsverbund'.)

enlargement process. The Act on Scheduled Passenger Transport by Bus (XXXIII. of 2004.), approved very close to the accession date, which opened the legal opportunity/obligation of controlled market competition, but also contained a clause allowing the client authorities a way to **sign a contract with the former operator for an 8-year long (transition) period without tendering.**

The market opening has been a rather sensitive issue in the bus transport sector:

- The Agency of Privatisation and State Property declared already in 1997 the preparations for privatization of the bus companies. Following the actual political changes the process stopped in 1998 and restarted in 2002, then after two years debating in the Parliament the government has backtracked in 2004.
- Although the rolling stock is aged, the market share of the companies represents a significant value, and the government expects large incomes from the privatization. Of course this can be reached only if the market is kept.
- All the labour organisations of the bus companies are reacting strongly and sensitively on possible structural changes.
- The accession process includes the opening of the market, which should have a lot of positive effects on service level or operation costs. But there were certain fears that the demands for compensation may increase due the private entrepreneurs; and the lines with a loss, especially connecting smaller settlements may loose in service.

Compensation rules

A lot of local governments were facing with compensation demands in urban public transport according to the Regulation 1191/69. Thus, the government introduced a new subsidy for the municipalities, allocating normatively according to the capacity output of the operator. This amount is only available if the municipality itself was compensating the operator.

Funded developments

The government realized that the companies need state aid to match the European emission standards. There have been several calls for applications for state funds run by the Ministry of Environment to subsidize the replacement of “black” engines (for buses and locomotives) or the difference on price of low-emission/alternative driven (CNG) vehicles (for buses only). Now there is a fund for digital tachographs. However there was no state aid for low-floor vehicles.

> *The operators were looking forward and trying to prepare for the EU funding possibilities. For example the BKV (Budapest Public Transport Company) established a department dealing with and preparing for the EU integration.*

EU assistance

Several EU initiatives (such as CIVITAS, INTERREG, Citizen’s Network, UrbAct etc.) supported the exchanges of **best practices** in public transport policies, planning and operations. This influenced the national and local transport policies, and with the support from enthusiastic professionals some local authorities took steps towards sustainable mobility.

6. Actual impacts

Regionality, subsidiarity

The expectations of decentralisation have not been met. The development and regulation of regional and long-distance public transport is still under the responsibility of the Ministry of Transport and Economics. There has been little **effort from the EU** to move the national government towards decentralisation or at least to draw the local authorities into the decision process. In the long term this may have negative consequences: the emphasis remains on the central region either on urban, on regional or on long-distance level. However, concerning urban PT, the former barriers in choosing the operator (ensuring the market for the state-owned bus companies as described in chapter 0) have been ceased, opening the possibility for tendering the public service contracts for the local governments. This is clearly a result of complying with Regulation 1191/69.

There is only one **Public Transport Association**[3] as described in chapter 4, founded in the Central Region (around the capital) in 2005, which proved to be a special case. In general the legislative conditions of such associations are missing. An important change of this year should be mentioned: following the Subsidiarity chapter of the Concept on midterm restructuring of the public transport (MoET) regional transport managing bureaus have been set up (belonging to the Ministry). Their aim is to decentralize the PT tasks of the Ministry.

Contracting, financing, market opening

The contracts on public service were made before the end of 2004, as prescribed in the law complying with EU regulations. These contracts specify the financing of the operation according to the Regulation 1191/69.

As mentioned above, the Act on Scheduled Passenger Transport by Bus (XXXIII. of 2004.) opened the legal opportunity/obligation of controlled market competition. However, since the law opened the possibility of gradual introduction of competition, all the public service contracts for regional and long-distance services and most of the urban services were signed without tendering for 8 years (at some local governments for less years).

Term of contracts	Number of towns contracted
1 year	5 towns
2 years	3 towns
3 years	6 towns
4 years	8 towns
5 years	7 towns
6 years	3 towns
8 years	77 towns (71%).
Total:	109 towns

Source: Volán Association

There have been some tenders as well (since the shorter terms have finished), but the only larger town tendering was Szeged. On that tender there have been several private and foreign companies enquiring, but finally only two aspirants submitted their bid. The former operator, the state-owned bus company won the right of operating for 8 years.

The tendering process in Szeged has brought some significant positive effects, which may be seen as impacts of the EU accession.

- *Stronger position of the responsible authority in defining the level of service etc.*
- *Due to the competition a lower level of cost – on the other hand a clear and assured financing.*
- *The contract cost is broken down into several unit costs which allows the authority to change the route network without major impacts for the operator.*
- *Higher quality of service, several qualitative parameters and connecting bonuses or penalties fixed in the contract.*

Ownership

One could suppose that the reason of ensuring the market position of the state-owned companies was to increase their value for a coming privatization. There have been some news every year regarding the privatization of the bus companies, but till now nothing has happened. The value of the companies' market position is decreasing as 2012 draws near.

The Veolia Transport (ex-Connex) established a subsidiary in Hungary in 2003. The management defined three important fields to enter the market: (1) the Volán (bus) companies, (2) Hungarian Railways, (3) transport companies in Hungarian cities. The executives of Veolia believe that the Volán companies are ready for privatization without requiring radical changes. Acquiring reference in the transport sector is most important for the company and they are interested in performing all kinds of roles in this field. Volán companies have signed contracts until 2012 and until then there is no possibility for any actor to enter the market unless Veolia buys the ownership in any Volán company. This would provide very good reference for them as this would show that they are more effective than the traditional transport companies. According to the manager if the government refuses to sell the Volán companies until 2008, Veolia will rather wait for the tenders because the only value of the Volans is the signed public service contracts until 2012.[4] (Connex applied for the bus service at Szeged, as a sub-contractor of the local Volán company in the optional bid with younger buses – but this option has been refused due to higher costs.)

Railways

In the railway sector the restructuring of the companies and authorities is going on, complying with the Railway Packages of the Acquis Communitaire. The railway network is now accessible for any goods transporting railway company, and their number is increasing - there are now about 10 of them. The similar division of the national company is planned to be formed into a separate company as well. A **Railway Infrastructure Capacity Managing Authority** has been founded, and the rules and prices of usage of the railway infrastructure have been set. (According to the Ministry of Energy and Transports these prices are too high, they need to be decreased in favour of the competitiveness of rail transport.)[5] The passenger transport is not affected yet by the market opening.

Following the Concept on midterm restructuring of the public transport (MoET) the passenger fares have been equalized (the railway was cheaper before). The

[4] A. Tóth – D. Jancsics: Urban public transport (Hungarian Academy of Sciences, European Labour Research Centre)
[5] Concept on midterm restructuring of the public transport, MoET

passenger transport has been ceased on 14 minor rail lines in March this year. Originally 28 minor lines were announced to close in October 2006, but the others have been saved. Now some say that these 14 were only the first step, and 80 lines will follow. Recently the reconstruction of the line Szolnok – Makó was announced, although a part of this line was one of the 28 planned to close a half year before.

Human resources

Regulation 3820/85, modified by Regulation 561/2006, on the **maximum driving time** has set strict time limits for the drivers on duty, in favour of safety. This resulted in higher operation costs for the companies (mainly in regional and especially in long-distance transport). The operators say that the accident rate has not changed, since the professional drivers cause the least accidents.[6]

The standardisation process of **driver licences** for both road transport and locomotives was part of the European process to ensure cross border operation. Special difficulties occur at the railways, because the signalizations and the national standards of several member states differ a lot from each other.

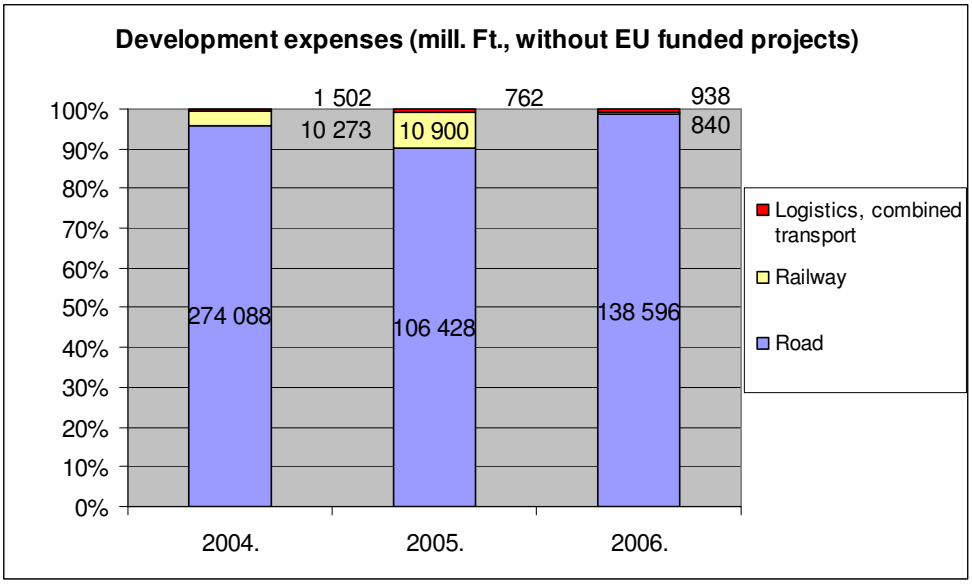
Rolling stock, infrastructure

The funding policy of the European Union led to several development projects within the area of railway infrastructure and rail-bound public transport systems. As a new element, rolling stock may now also be financed. This may have a positive impact on the quality of the public transport and its competitiveness, in particular if funds are allocated to comprehensive projects, combining the integrated improvement of infrastructure, rolling stock and telematics (vehicle fleet monitoring, PT preferring systems at junctions etc.). Such comprehensive and integrated projects may substantially improve the efficiency and sustainability of the Public Transport.

Transport policy

Although sustainable mobility has been put on the agenda, little has actually been achieved in this field. The better the Hungarian economy operated, the more money was spent on motorways and other roads and bridges – whereas hardly any development took place in the public transport sector.

[6] Interview with Károly Káity, Tisza Volán Co.



Source: Annual budget of Ministry for Economy and Transport

Figure 8 The distribution of development expenses funded by the Government among the transport sectors

As regards the developments funded by the EU, more than 50% of the Transport Operative Program (the specific chapter of the National Development Plan) was allocated to road development, whereas less than 50% were left for the other modes of transport (railways, urban and suburban public transport, intermodality, inland waterways, logistics etc.). The European Commission requested that this balance be changed, and this may lead to a more sustainable transport policy in Hungary.

The joining the EU and complying with its regulation has brought some additional opportunities and benefits to the public transport sector:

- Improved access of **disabled persons**, including the provision of low-floor vehicles and adequately designed passenger infrastructure.
- Improved **emission standards**, engine or vehicle fleet modernization.
- Driving time regulations in favour of road **safety**, digital tachographs to enforce them
- Efforts to standardize the traffic signalisation (both for railways and road) and the driver (and loc driver) **licenses**, to ensure cross-border operation.

There were great expectations of the policy for enhancing sustainable mobility. However policies have remained not much more than intentions yet, since there are hardly real actions encouraging the use of PT, shifting towards rail-bound systems. (While the car traffic and infrastructure has been developing rapidly, the urban PT has about 20 years, the railway 30 years backlog as compared to the EU 15 average.)[7]

7. Evaluation

In Hungary there was a general expectation that the Accession would lead to decentralisation in the Public Road Transport Sector, and that the sector would become subject to open competition.

[7] Related to large investments or system renewals in infrastructure or rolling stock – except bus fleet.

However, although regulation 1191/69 aims to bring about both decentralisation and competition, member states still had a substantial degree of freedom in this regard, and the impacts have therefore so far been limited in Hungary.

Regulations allowed the authorities - during a transition period - to protect the previous public transport operators and to sign long-term agreements with them without competitive bidding. This may have strengthened the position of the previous operators and given them better opportunities to compete on the free market in the future. But the effects of opening the markets - in terms of higher efficiency and lower costs - have not yet materialised.

In the longer term, the market will have to apply fully to the intentions of regulation 1191/69. Although the market is still not subject to open competition, the sector has gradually been introduced to the use of public service contracts and competitive bidding, and the market has therefore become more prepared for future market conditions.

Other EU directives - not specifically targeting the Public Transport Sector - have also had positive impact on society. This includes the improved emission standards for buses, the improved access for disabled persons to the Public transport (in the form of low-floor buses), and the regulations on driving time.

In the railway sector the restructuring of the companies and authorities is going on in accordance with the Railway Packages of the Acquis Communitaire. Whereas the market for goods transport by rails is now open - and the number of operators is increasing - passenger transport has not yet been liberalised.

Several development projects in the railway sector were supported by EU funds. The EU policies of enhancing sustainable mobility may also lead to significant improvements to the Public Transport Sector - by comprehensive and integrated improvements to the infrastructure, rolling stock, telematics and supply/scheduling. Such improvements would probably require substantial financial support to the sector, e.g. from the EU Structural Funds.

8. References

References:

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- Population counting in 2001, transport data (Hungarian Central Statistics Office)
- Transport in the European Union (Tamás Zsolnay, Ministry of Foreign Affairs)
- Concept on midterm restructuring of the public transport (Ministry of Economics and Transport)
- Two years after the EU accession (Ildikó Marcsa, Volán Association)

- Urban public transport (András Tóth – Dávid Jancsics, Hungarian Academy of Sciences, European Labour Research Centre)
- Annual budget of Ministry for Economy and Transport (Acts on Budget, 2004-2006)
- EU accession, transport and the environment (Károly Kiss, Clean Air Action Group)
- Infrastructure networks and the competitiveness of economy (Tamás Fleischer, Institute for World Economics of the Hungarian Academy of Sciences)

Interviews:

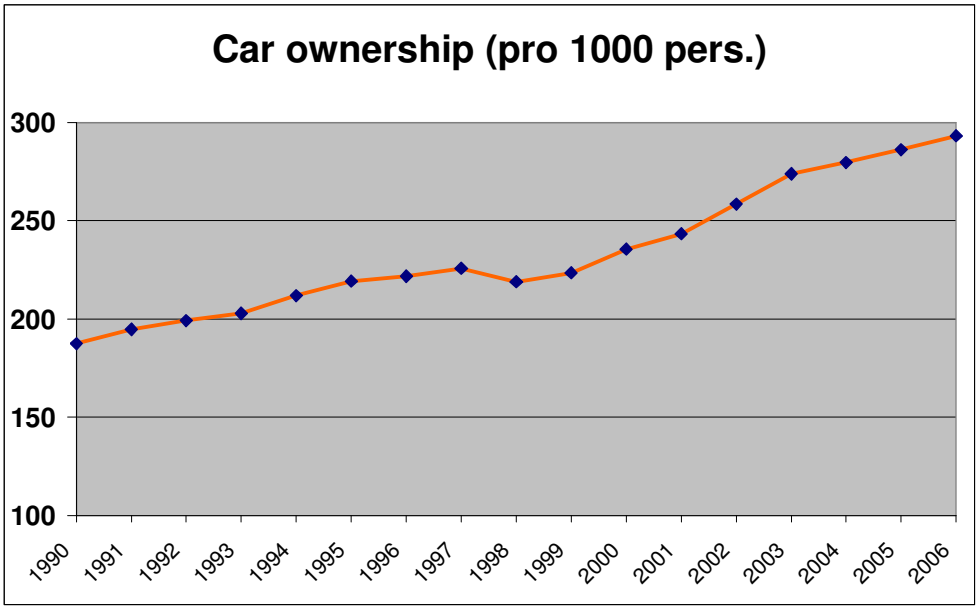
- Károly Káity, Chief engineer on traffic, Tisza Volán Co.

9. ANNEX: Background information about transport patterns

Hungary consists of 19 counties, which are planned to be formed into 7 regions. There are about 3200 municipalities, and each settlement has its own one. The counties have their elected governments, too, but the regions exist only statistically yet.

The transport sector is facing an increasing car ownership and mobility. The role of the public transport is still large, but decreasing.

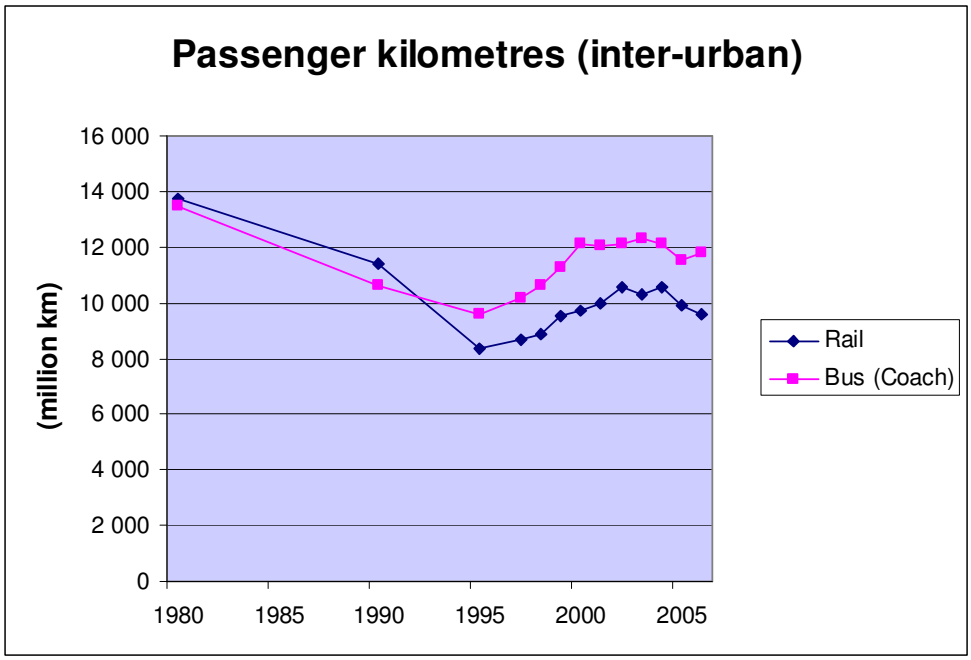
The development in car ownership is illustrated in Figure A.1.



Source: Hungarian Central Statistics Office (HCSO)

Figure A.1: Development in car ownership 1990 - 2006

Figure A.2 shows the development in interurban passenger transport by bus and rail. Although both modes have re-gained some of their market since 1995, they have both lost substantial market shares compared to the private car.



Source: HCSO

Figure A.2: Development in interurban passenger transport 1980 - 2005

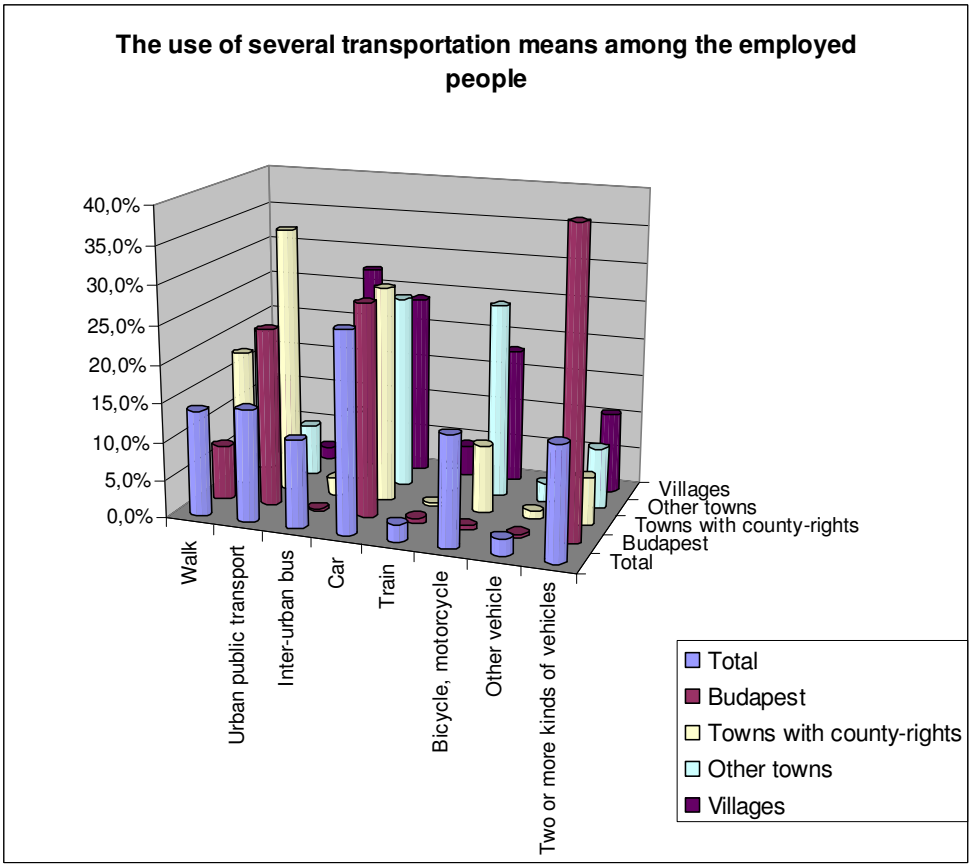


Figure A.3: The modal split of the trips to work. The basic data of the figure are listed in the table below:

Daily transportation mode	Total	Budapest	Towns with county-rights	Other towns	Villages
Walk	13,9%	7,2%	17,9%	19,4%	10,7%
Urban public transport	14,7%	23,3%	34,8%	6,7%	1,6%
Inter-urban bus	11,5%	0,3%	2,2%	9,4%	27,4%
Car	26,1%	27,9%	28,3%	25,4%	23,9%
Train	2,3%	0,8%	0,5%	3,0%	4,0%
Bicycle, motorcycle	14,5%	0,6%	8,9%	25,6%	17,8%
Other vehicle	2,2%	0,4%	1,1%	2,5%	4,1%
Two or more kinds of vehicles	14,8%	39,6%	6,3%	8,0%	10,5%
Total	100,0%	100,0%	100,0%	100,0%	100,0%

Source: HCSO, general census of 2001, "self-declaration". Without those who don't travel at all. Employees make 36,2% of the population.

Case Study "The implementation and impact of Port State Control in Poland"

By:

COWI

1. The "case"

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 IMO and UN regimes. Because of the already liberalised character of the maritime transport marked, marked opening is not in focus in the EU Acquis for maritime transport. The Acquis is mainly focusing on safety, security and environment.

This case study analyses how the directive on Port State Control (PSC) has been implemented in Poland. Thus the case study will attempt to answer:

- How was Port State Control implemented in Poland?
- What institutional capacity needed to be developed?
- What was the role of Technical Assistance?
- Can Technical Assistance be improved?
- How is communication with EU-level institutions (EMSA)?
- Have there been visits from EMSA-inspectors?
- Has there been an impact on the technical quality of the ships calling at the port?

The countries which register ships (the flag states) are, together with the owners and operators of the ships, responsible for ensuring the safety and the environmental performance. This means, that the flag states are responsible for monitoring and enforcing the compliance of ships with international standards for safety, pollution prevention and shipboard living and working conditions.

However, not all flag states take this responsibility seriously. Therefore, additional 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 they are seaworthy.

In Europe, such a regime was established with an agreement signed in Paris on 26th January 1982, known as the Memorandum of Understanding on Control of Ships by the Port State (Paris MoU). In 1995 this regime was incorporated into EU law with the adoption of the directive 95/21/EC on Port State Control.

2. Directive 95/21/EC on Port State Control

The Council Directive 95/21/EC with later amendments is part of the Acquis Communitaire. The requirements in the directive and the Paris MoU are basically the

same. The only difference is that the Paris MoU is a non-binding agreement and includes a few non-EU member states.

The purpose of the directive is to reduce substandard shipping in the waters under the jurisdiction of Member States by:

- 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 Member States in average inspect at least 25% of the number of individual foreign ships that enter its ports in a given year calculated on the basis of the three most resent calendar years. Furthermore, ships must be inspected at intervals reflecting the risk they pose.

The Directive also requires that each Member State establish an inspection body and it set forth the minimum requirements to the professional profiles of inspectors.

The implementation and enforcement of the requirements in the Directive is important for the following reasons:

- Marine safety.

- Pollution prevention

- Competition between ports. If a situation exists where the strictness or accuracy of inspections varies among port states, substandard ships may alter their routes and choose more accessible ports in the area. Ports with lax inspection procedures will thereby get an unfair competitive advance.

3. European Maritime Safety Agency

The European Maritime Safety Agency (EMSA), created in the aftermath of the Erika disaster, contributes to enhancement of the overall maritime safety system in the Community. Its goals are, through its tasks, to reduce the risk of maritime accidents, marine pollution from ships and the loss of human lives at sea.
In relation to Port State Control EMSA has the following tasks:

- Inspecting and reporting on Member States Port State Control systems and procedures.

- Training of ship inspectors in collaboration with Member States

- Carrying out analyses of statistics relating to ships calling at EU ports and ship inspections in order to develop procedures for continues improvement of the system.

4. Implementation of the EU requirements in the new Member States[1]

The Paris MoU produces annual statistics on member states performance in the annual report. The EC uses (part of) these statistics to assess compliance with the directives and there by recognise the status of the annual report. The annual report shows no obvious deviations between "old" and "new" Member States, leading to the conclusion that implementation in both categories is to the same standard. Judging from the lack of recent infringement procedures, it may be concluded that the standard meets the requirements.

5. Implementation of the EU requirements on Port State Control in Poland

Poland has been member of the Paris MoU since 1992, so the concept of Port State Control is not new in Poland. However, the implementation of the Directive 95/21/EC on Port State Control has led to an update of the legal regulation and unification of Port State Control organisation in the Polish ports2

5.1 Legal transposition of the requirements in Directive 95/21/EC

The provisions of Council Directive 95/21/EC on port State Control of shipping has been implemented into the Polish legal system in the Maritime Safety Act (Journal of Laws 2000, No 109, p. 1156) and the Regulation of Minister of Infrastructure of 30th April 2004 on the port State control organization (Law Journal 2004, No 102, pos. 1078) almost literally. Thus, the legal analysis shows no important gaps between the Polish legislation and the requirements in the directive.

5.2 Practical implementation of the EU requirements

EMSA has carried out an inspection in Poland in 2004[3]. The inspection report is confidential, but EMSA has provided the following information for the purpose of this case study:

" EMSA's inspection team was persuaded that there was substantial compliance by Poland with the Directive's requirements, which in a sense was to be expected as Poland was already, before accession, a member of the Paris MOU whose rules are essentially the core of the EU relevant acquis on PSC. Several weaknesses were however identified, in particular, delays on the ratification of relevant international instruments, unreliable system to calculate the number of entries in Polish ports with possible impact on the fulfilment of other obligations of the Directive, lack of traceability of ships liable for inspection, lack of means and equipment necessary for the inspectors and absence of a specific system of sanctions.

EMSA does not further elaborate their criticism and do not provide any suggestions on how the PSC could be improved in Poland.

[1] This section is based on information provided by Senior Project Officer, Frank Rohling, EMSA
[2] Szczecin and Świnoujście Seaports; Port of Gdynia; and Port of Gdansk
[3] EMSA audit 07-10.12.2004.

In relation to the weaknesses identified by EMSA, the National PSC coordinator in Poland informs that:

- The ratification procedures of the relevant international instruments are in progress
- The system to calculate the number of entries in Polish ports has been improved since the EMSA inspection and is in the near future presumed to meet all requirements.
- Tractability of ships liable for inspection has been improved
- The lack of means and equipment necessary for inspectors has been solved.
- The absence of a specific system of sanctions is still a problem. It is a requirement in the Polish court system that all relevant documents are available in the Polish language before it can be taken to court. The PSC authorities have problems with the certification of the translations of the documents.

PSC organisation

Basically the organisation for effective PSC in Poland is in place. The authority responsible for the inspection of ships is the Maritime Offices in the ports which each employs a number of PSC inspectors.

The requirements for the inspectors to get authorised follows the requirements outlined in Annex VII of Directive 95/21/EC.

The Maritime offices refer to the Ministry of Maritime Economy. Under this ministry is also a PSC Coordinator responsible for the national coordination of PSC.

Inspection of ships

The directive 95/21/EC requires that the total number of inspections of ships shall correspond to at least 25% of the average annual number of individual ships entering the ports calculated on the basis of the three most resent calendar years.
During the last 10 years between 27 and 42% of the total number of foreign ships have been inspected each year in Poland.

Also the directive sets requirements to the inspection procedure. According to the National PSC Coordinator the inspections follows these requirements. As the requirements in the Paris MoU basically are the same as in the directive the procedure has not changed with the transposition of the directive into Polish legislation.

As outlined above, the problems in relation to inspections of ships identified by the EMSA inspection in 2004 have been solved.

5.3 Technical Assistance

Poland has received technical assistance in form of the PHARE project "Transport administration and the Acquis" co-financed by the EU Commission with € 4.500.000 and by the Polish Government. with € 2.370.000. This project included training of PSC personnel as well as support to investments

Training activities are being organised by the Paris MoU. Last year 3 newly employed inspectors took part in these training activities partly financed by the EU Commission. The National PSC Coordinator does not see any additional needs for TA.

6. Realised impacts

There is no doubt that PSC has a positive impact on maritime safety and environment. However, as the EU requirements are adopted from the Paris MoU the direct impact of the EU requirements are limited although they have led to an improvement of the PSC system in Poland. The limited impact will also be the case for all other EU countries with sea ports and for the impact of the enlargement, as all the relevant EU countries were already members of the Paris MoU before the directive was adopted.

An important overall impact of the adoption of the directive is the establishment of the EMSA to oversee and supervise the implementation of the requirements of the directive and thereby the requirements in the Paris MoU.

As the system of PSC was in place before the enlargement of the EU no direct costs can be identified for the implementation of the directive.

7. References

- EMSA website: http://www.emsa.europa.eu/
- EU Directive 95/21/EC with later amendments on Port State Control of Shipping
- The Paris Memorandum of Understanding on Port State Control
- The World Bank Reform Toolkit, module 2 "the evolution of ports in a competitive world"
- Polish Maritime Safety Act (Journal of Laws 2000, No 109, p. 1156)
- Regulation of Minister of Infrastructure of 30th April 2004 on the port State control organization (Law Journal 2004, No 102, pos. 1078)
- Information provided by: Frank Rohling, Senior Project Officer - Port State Control Monitoring Unit E - Implementation EU Maritime Legislation European Maritime Safety Agency
- Information provided by: Captain Anna Wypych – Namiotko, National PSC Coordinator and PSC Inspector Joanna Zinka - Maritime Office in Gdynia.

Case Study "Integration of Polish road transport market into the EU-market"

By:

1. Basic information

Road transport services account for 1.6 % of EU GDP and give jobs to 4.5 million people in the EU. The whole economy and society depend heavily on efficient road transport: 44 % of the goods are moved by trucks.

The Polish road transport sector is by far the largest of the New Member States. In the year 2001 up to 53.500 companies employing 309.960 persons were active in Poland. Other statistics however speak of about 80-90.000 road transport companies for hire and reward prior to accession. The difference can be explained from the 'lower end' of the market. It is hard to determine what an operator is ('a man with a truck'?) in a transition economy. Only a small minority of these companies – around 1.500 – have more then nine employees. The vast majority owns or borrows small vehicles: trucks of up to 2 tons of payload prevail. In the year 2003 8.716 road haulage operators were active in the international market.[1]

2. Definition of the subject

In the wake of the enlargement many changes have taken place in the road transport market, both in New Member States and the EU-15. In this case study the most important changes are traced for the Polish market for road haulage, as a representative of the NMS, and Dutch market, as a representative of the EU-15. The focus will be especially on the structural effects within the respective markets and the impact on the labour market for drivers.

3. Relation to EU-enlargement

Before 1989 road transport was in the hands of state-owned companies. After 1989, private entrepreneurs bought vehicles from the former state-owned companies, and started their own companies. In the meanwhile, the demand for road transport services increased and new trade flows were created between Poland and Western Europe. These developments were left free of government interference.

In international road transport, bilateral agreements existed between Poland and different countries of the EU-15. These agreements put certain limits on international road transport: for example maximum volumes for Polish operators in bilateral transport. This was enforced through a system of permits.

[1] IRU (2003): Poland: Road Transport Fact File

With EU-enlargement this situation changed. Now free access was granted to the intra EU road haulage market, provided that accession countries effectively implement the acquis in the road transport field. The acquis on road transport tries to establish a largely liberalised and integrated market on a European level, with common rules on access to the market and to the profession, on driving and rest periods (including enforcement and the use of tachograph), on technical and safety standards for vehicles, and on vehicle taxes, tolls and user charges.

Some transition periods were allowed. For Poland a transition period exists with regard to the axle-load limits that may be maintained with regard to certain vehicles in international traffic. Poland may maintain Polish maximum axle-weight limits on non-upgraded parts of the Polish road network until the end of 2010. Until that time Poland does not conform to EU-legislation on this point.

During the accession process, certain EU-15 countries had concerns that enlargement would lead to distortion of competition regarding national cabotage, i.e. transport of goods by road within a Member State carried out by a non resident operator. These concerns were based on the fact that hauliers in the candidate countries operate with considerably lower costs. This could cause big disturbances in the road transport markets and labour markets of EU-15 countries if operators from NMS were allowed on their national markets.

It was agreed that there will be restrictions regarding the possibility of carrying out such transport operations. Hence, transitional arrangements have been established which entail that access of non-resident hauliers to the national road transport market (cabotage) of other Member States should be phased in gradually.

These transition arrangements foresee 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 5 years. Member States that have not prolonged the transitional period after the first initial period, may apply a safeguard and close again their cabotage market in case of a crisis, as long as any other Member States still applied 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 after the first 2 (respectively 3) years opened their market. 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.

Until now, only with a few exceptions, cabotage is still forbidden in the bilateral transport relations between old and new Member States. As yet only Ireland, Portugal and Sweden have decided not to prolong the Transition Period on cabotage and to allow Polish operators to enter their national road transport markets.

4. Expected impacts

The fact that with enlargement the market for international road transport of the EU-15 was opened up to operators from NMS and vice versa, was expected to have a number of important effects.

First of all, the reduction of waiting times at border crossings. In international road transport, these waiting times at borders were important cost factors, so costs would be significantly reduced.

Because wage costs in Central and Eastern Europe are significantly lower than in the EU-15, the costs of operation of CEE operators are much lower. It was estimated that in 1998 that on average the wage costs in the EU-15 were 5 times the CEE average. In Poland the costs per truck per year were about €70 thousand euro, compared to about €120 thousand for the EU-15.[2] Hence it was expected that hauliers from the CEE would push out hauliers from the EU-15, causing concerns about survival of EU-15 companies and about employment of EU-15 drivers. Before accession both employers' organisations and trade unions in the EU-15 were opposed to unconditional access of operators from NMS.

Because of these worries, EU-15 countries postponed opening up their domestic markets to operators from the CEE countries. However for international road transport, similar effects were expected.

In the years leading up to the enlargement, also counterarguments to these fears were heard:

Dirk van Vreckem, European Commission, during IRU seminar 2003

….Some in the current Member States, however, see enlargement more as a threat to economic activities than an opportunity to industry. This is certainly the case for road transport. They fear that cheap operators in the candidate countries could take over a substantial share of the market. These fears are to a certain extent exaggerated.
Firstly, similar fears were expressed when Spain and Portugal joined the EU. But in 1986 this did not happen and the Commission does not expect this to happen in 2004, either.
Secondly, transport operators in the candidate countries must apply the acquis communautaire by the date of accession. Between now and then, this will further increase their costs and reduce the difference of the cost levels between transport operators. Road transport operators in candidate countries have recently invested a lot in new vehicle fleets. These investments have an additional impact on their costs.
Thirdly, already today the internal market functions even if not all conditions of competition are equal.
Fourthly, competitiveness is not exclusively based on price levels. It also depends on quality and specialisation in certain types of transport or on certain geographically limited market.
Fifthly, the integration of new Member States will stimulate economic trade and, so, traffic will increase.

[2] IRU (2001): Competition in East-West Road Transport Markets: Providing Opportunites for All.

Finally, it has been agreed that Member States can apply safeguard measures and measures to restrict the free movement of workers for a period of up to 7 years, if they so wish.

The implementation of the acquis was also expected to lead to a big 'shakedown' among Polish operators. Especially at the low end of the market, many operators did not meet the requirements laid down in the acquis on e.g. financial standing[3], professional competence, technical and safety requirements for vehicles, etc. Their financial situation did not allow them the make the necessary investments, and hence they would probably disappear. The same requirements were also expected to lead to fleet renewal, decreased emissions and increased road safety.

5. Implementation Process

The relevant acquis concerning road haulage was enacted in Poland in the Road Haulage Act of 6 September 2001.

Also in 2001 the General Inspectorate for Road Transport (Główny Inspektorat Transportu Drogowego, GITD) was established. Through the GITD the Road Haulage Act and with this the Road Transport acquis is enforced in practice. It performs roadside and company inspections to see if the requirements on access to the profession and to the market are met.

As part of the TAIEX programme Polish officials dealing with road transport, received training on the basics of the EU legislation and the functioning of the internal market. Through a Twinning project the Polish Ministry of Transport was assisted by German and French officials with the establishment of the GITD.

Large scale investments in road infrastructure – new roads and upgrading old – are now undertaken and planned. At the moment, the highway network in Poland only is about 740 kilometers in length. This network will be expanded in the years to come. Also new express roads and provincial roads will be build and upgraded. The road network will be upgraded to conform to the EU requirements on weights and dimensions. A large part of this programme will be financed though the European Structural Fund and the Cohesion Fund: up to 2020 this amounts to about 11 billion euro.

6. Actual Effects

6.1 Impacts in Poland

The expected impacts of the enlargement with regard to road transport all bore out:

- A gain in efficiency in international road transport because waiting times at borders ceased to exist.
- Domination of Polish operators in international road transport, because of their cost advantage due to lower wage costs.
- The competition among hauliers has intensified.

[3] The proven assets of the company should be 90.000 EURO for the first vehicle and 5000 EURO for each additional vehicle.

- Many small and medium sized operators disappeared: it is estimated that in the year 2004 the total number of companies engaged in road transport (both domestic and international) decreased in Poland with a third compared to 2002. Many operators ceased to exist because they could not fulfill the relevant requirements. Furthermore, many mergers and acquisitions took place in the wake of the accession.
- Many old vehicles have been replaced by new verhicles, with positive effects on the environment and road safety. This is exemplified by a growth in sales of new trucks: whereas in 2000 6,9 million trucks with a load capacity of over 6 tonnes were sold, in 2005 this was 10,8 million.[4]

However, the biggest impacts from the accession in the road transport sector are more indirect, and related to the changes that have taken place in the Polish economy as a consequence of the accession into the EU. Poland is now also an attractive consumer market. This has important effects on the way goods are distributed and through this on the (road) transport sector. Before, international transport between Poland and the EU-15 concentrated on transport from Polish production sites (to which much production has been outsourced) to consumer markets in Western Europe. This does not require a dense distribution network. However, now that Poland is developing into a consumer market itself, and importing consumer goods, this has changed. Hence there is increasing demand for sophisticated logistics services.

Moreover, because of the accession Poland is able to profit much more than in the past of its strategic location on the East-West route between Western and Eastern Europe and Russia. This is especially important because of the increase in trade that has taken place in recent years between Europe, Russia and China. Poland is thus fastly developing into a hub on East-West routes (as well as North-South routes). Associated with this, is an increasing demand for services as forwarding, warehousing, distribution, etc. In the period up to 2010 warehousing space in Poland's most attractive regions is expected to grow by more than 340%.[5]

For the road transport sector in Poland these developments have meant enormous growth. In 2005 road transport grew with about 13% compared to the previous year. The total number of trucks registered in Poland has more than doubled between 1990 and 2005.[6] The number of vehicles engaged in international road transport however grew from 3-7.000 vehicles in 1990, to 40-50.000 vehicles in 2004, to about a 100.000 in 2005. And the number of companies in international road transport has more than doubled: from 8.716 in 2003 to 17.572 in 2006.

The developments sketched above, have also meant changes in the way transport companies operate. Although small operators still predominate – 74% of carriers possess from one to four vehicles and employ up to 5 people – the trend is towards consolidation. This also is a consequence of the fact of changing demands: clients now desire not just transport services but integrated logistics services (transport together with warehousing, distribution, packaging, expedition, etc.). Small operators are not able to meet these changing demands and will have to combine with bigger companies.

[4] Polish Information and Foreign Investment Agency (2006): The Automotive and Transport Equipment Sector in Poland.
[5] Polish Information and Foreign Investment Agency (2006): Poland's Logistics
[6] Polish Information and Foreign Investment Agency (2006): Poland's Logistics

These developments in the road transport sector have also had effects on the labour market. Until a few years ago hauliers didn't have to put much effort in finding good personnel in Poland, but now it has become much more difficult. There are even reports that there now exists a shortage of about 30.000 drivers in Poland.[7] As a consequence salaries have risen. Nevertheless the gap with salaries in EU-15 countries remains sizeable: the costs to employ a driver for international transport in The Netherlands is on average between 4500 and 5000 euro per month, while in Poland these costs or 1600 to 2000 euro. Training of drivers has also expanded very significantly, in order to increase the supply of drivers. Furthermore, there are indications that low wage drivers from e.g. the Ukraine are now active in Poland and Europe without the necessary permits.

6.2 Impacts in The Netherlands

In the EU-15 there has also been a significant impact of the enlargement. The developments in The Netherlands offer a case in point, because of the relative importance of road transport and logistics services.

Overall the effects of the enlargement in the road transport market in The Netherlands were not perceived very positively. A survey among about 1200 road transport operators in 2005 found that about a third experiences effects of the enlargement, of which about two thirds said these effects were negative (lower prices, less rides, less turn over). Moreover, it was reported that because of the competition in international road transport with hauliers from Poland, big transport companies turned back to the national transport market in The Netherlands. This in turn resulted in increased competition there, which was felt increasingly by small and medium-sized transport companies. Their strategy is now to specialise in certain types of transport, to offer an integrated package of logistics services to fewer clients and to start partnerships with other companies.

However, some big Dutch hauliers have benefited significantly from the enlargement and have started operating in Poland, either through take-overs, joint ventures or through establishment of new companies. Several Dutch transport companies have been active in this way already since the mid 1990s. These operators have managed to profit from the Polish upsurge in especially international road transport. They have also been instrumental in the development of road transport companies into companies that offer integrated logistics services, since expertise and experience on logistics and distribution hardly existed in Poland.

A first mover: Raben Group
Raben was founded 75 years ago in The Netherlands, and is still a family-owned company. It employs 3.500 people; 2.500 of which in Poland. It started it's operations in Poland in 1991. Raben is specialised in groupage transport (combining partial loads), and is has special services for the transport of fresh products and automotive parts. It has developed from a road transport company to a company offering full logistics services, including warehousing, distribution, forwarding, cropping, packaging, etc.

[7] Financieel Dagblad (January 12, 2007): Poolse Vrachtwagenchauffeurs zijn op

In 1993 Raben build it's first warehouse near Poznań. Back then this was a decision that was frowned upon: logistics was something completely new in Poland, and nobody saw much future in it. Now Raben has 185.300 m2 of warehousing space in Poland, of a total of 260.000 m2 in the whole of Europe.

4 years ago Raben Group expanded to the Ukraine and Russia, and after the accession Raben also established offices in the Baltic states. Customers increasingly demanded transport and logistics services further east, so offering transport and logistics services between Holland, Germany and Poland was not enough anymore.

The accession of Poland has had some remarkable effects: transport on export lines doubled within six months. At the same time however it has experienced difficulties in attracting and keeping good drivers. One of the ways it tries to cope with this problem is to offer arrangements for drivers in which they are provided with their own truck. They then drive and operate in the name of Raben, but have their own business as a charter.

The effects of the enlargement on the labour market for drivers in The Netherlands have been mixed. It is estimated that only a small percentage (1-2%) of transport companies hires personnel from NMS in The Netherlands.[8] So it would appear that officially there not many drivers from NMS active in The Netherlands.[9] There are however reports that illegal drivers from the NMS are active in The Netherlands.[10] Furthermore, also on the labour market the effects of the increased competition in the road transport market will be felt. But overall, for the biggest part of the labour market the effects have been rather limited. This has also been the consequence of high economic growth and the associated growth in the road transport sector: hence there has been a high demand for drivers. Also in The Netherlands now big shortages exist. Job loss has hardly occurred.

In international road transport drivers from the NMS are now dominating. Demand for Dutch drivers has decreased because of their relatively high salaries. At the same time however supply has also decreased: not many Dutch drivers want to be away from home for long periods anymore. On the work floor the 'Polish influences' can sometimes be clearly visible and lead to some estrangement:

Quote 1
SMS of Dutch driver addressed to employee organisation (February 2006):
"I spoke to Polish drivers who drive throughout Europe 5 weeks in a row for 1500 EURO/month, after that they are at home for one week. Travel to home (from NL) is for their own costs. Similar work for a Polish boss would pay them 900 EURO. They are rather satisfied. Biggest problem for them is that they run out of food taken along after two weeks."

Quote 2
A telephone call to employee organisation (February 2006)

[8] No distinction is made between national and international road transport.
[9] One should however consider that the companies who do hire personnel from NMS are probably among the biggest, so it may be that there are more drivers from NMS active in The Netherlands than the figure of 1-2% suggests.
[10] FNV Bondgenoten (2006): Te koop aangeboden: Poolse vrachtwagenchauffeur.

"My boss is crazy. Polish drivers use Polish trucks for our work. Polish drivers use Dutch licensed trucks. I call right now while driving on a Polish vehicle. I cannot understand it anymore. "

7. Conclusions

Enlargement has had important effects within the road transport sector and especially international road transport, both within Poland and The Netherlands. On the one hand competition has increased and many small and medium-sized operators are facing difficulties or they have disappeared because they could not meet the requirements on access to the market or profession (Poland). On the other hand, the sector has grown substantially, efficiency has increased, and many new investments have been done or are planned. Operators from especially The Netherlands and Germany have established subsidiaries in Poland. Both in The Netherlands and in Poland there is a trend visible to more specialisation in certain kinds of transport, and offering integral logistics services (warehousing, distribution, forwarding, etc.). Poland is catching up on this development quickly, because of its development as a hub between East and West. In short, the sector has been very dynamic in the last decade, and enlargement has contributed to this in no small way.

The expected effects on the labour market seem to have turned out differently than expected prior to the Polish accession. Economic growth and the growth of the road transport sector have caused enormous demand for drivers in Poland and The Netherlands. Hence, loss of employment has hardly occurred in The Netherlands, and in both countries now shortages exist on the labour market. However, effects are visible in international road transport between the EU-15 and CEE countries: drivers from NMS now dominate the scene.

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Interviews

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- Krzysztof Lewczak, Head of International Road Transport Division, Department of Roads and Road Transport, Polish Ministry of Transport
- Sylwia Cieslak, Department for Strategic Planning and Transport Policy, Polish Ministry of Transport
- Huib Kastelein, Dutch Ministry of Transport
- Gerard Schipper, IVW
- Rick Ohm, TLN
- Maarten van Dam, Eunite
- Michel de Bruin, Eunite
- Bogna Błasiak, Raben Group

Case Study “Railway sector reform in Poland”

By:

1. Basic information

This case study deals with the issue of market opening and competition and disrupted market functioning for the rail sector in Poland. From this perspective, we will analyse EU legislation and implementation in Poland and the effects of accession for the rail market.

2. Definition of the subject

This study concerns three levels of the railway market:

- Liberalisation
- Competitiveness
- Efficiency and performance

Liberalisation is concerned with barriers of market entry that are present and with the public structure of responsible authorities for executing regulations.

The degree of competitiveness is a possible consequence of the existing access barriers and is concerned with the number of companies active in the market, and the market shares that are held by different parties.

Changes in efficiency and performance are possible consequences of competition within the rail market. This topic includes cost efficiency, volumes transported and quality of services.

On all these levels it is possible to compare with both other NMS as well as with existing member states.

3. Relation to EU-enlargement

Traditionally, the rail markets in Europe were characterized by a single player that is running both infrastructure management and transport operations, both freight and passengers. This company was usually state owned, which effectively put the Ministry of Transport or the likes in direct control of railway strategy and operation. In the NMS the public interest in railways used to be high because the railway sector was among their largest economic sectors. For Poland, the situation is not different from this.

The objective of the EU is to create a competitive European railway sector. This must be achieved by separating transport operations from infrastructure management, which effectively creates an independent network provider.

In order to achieve this goal the EU has developed a legal framework consisting of three Railway Packages. The first package (adopted 2001) included measures on development of Community railway, licensing of railway undertakings and allocation of infrastructure capacity. The second package (adopted 2002) included measures on safety, interoperability and opening of the rail freight transport market. The third package (adopted 2004) is concerned with opening the market of international rail passenger transport, improving passenger rights and certification of train drivers.

4. Expected impacts

There is still much debate about the extent to which liberalisation will create better conditions for the railway sector for becoming efficient, productive and of high quality, which is necessary to sustain as a serious competitor to road.

Expectations of the implementation of the transport acquis in the rail sector in Poland could not be based on any long term experiences in other countries, apart perhaps from the UK, since legislation was relatively fresh.

Moreover, generalizations from one country to another are difficult, since many other factors are important such as demographic and geographical factors, economic growth, the state maintenance of the infrastructure and rolling stock, railway gauge but also energy and environmental policy, since coal transport from the mines in Silesia forms about half of Polish rail freight transport.

Therefore, expectations for Poland can be stated in general as equal to the EU objectives for the railway sector: increased competitiveness and performance of the railway sector. The CBET study reasons that an increase in efficiency would stem from increased labour productivity. This increase can potentially be 23%, if Poland were to operate at EU levels, however, given other factors that limit this efficiency gain, a 5% increase is assumed.[1]

These expectations should be considered in the light of the existing state of the Polish railway infrastructure. This sector is characterized by large support from public funds, and low efficiency, service quality and competitiveness. This means that while there is much room for improvements, there are also many necessary conditions to be fulfilled to achieve this apart from implementation of EU policy.

5. Implementation process

Since the legislation in this area is relatively new, the New Member States were actually not lagging behind the EU-15 states so much in implementation. Front runners in opening of the railway market are Switzerland (although not EU member), the United Kingdom and Germany. These countries represent different models of liberalization. Poland has chosen to adopt the structures of the German model. An overview of the German Railway market is provided in Textbox 1 below. In fact, a report from the OECD in 1997 states that " In contrast to the west European countries, the CEE neighbour countries (…) started railway reforms shortly after road haulage liberalisation and they

[1] European Commission, Multi-Country Transport Programme, Cost and Benefits of Enlargement, Poland Country Report (1999)

have taken the EU Directive 91/440 more seriously than most of their western European neighbours."[2]

Text box 1: The German Railway Market

Deutsche Bahn was originally established in 1994 as a merger between the former East and West Germany incumbents. This company was already subdivided in the divisions passenger, freight and infrastructure. In 1999 DB was reformed as a holding company with five separate companies: long and short distance passengers, stations, freight and systems and tracks. Even though the company was privatized, the stocks are 100% federally owned. Currently, there are plans to float DB stock in 2008.

The Federal Railway Office is the regulatory authority, responsible for monitoring non-discriminatory access to railway infrastructure. Compared to other EU countries, the German railway authority is the most independent and powerful, according to the 2004 Liberalization Index report by IBM and DB. In addition, the Competition Authority has a special transport division which monitors competition in the railway market.

A 2004 study for UTK shows that in the period 1994 to 2000 DB was able to improve performance by 50%: the company produced 13% more passenger and tonnes-kilometers with 36% less personnel (EC Harris, NEA, RebelGroup, Systra, Thematic Report I: The Institutional Framework, 2004)

For Poland, this period of high speed in the early nineties was followed by a standstill at the end of that decade. In 2000 the Polish Railway act was passed. In 2003, the Act on railway transport was passed which harmonized Polish law with EU legislation on licensing and railway capacity allocation. In 2005 a new package of Railway acts was passed, aimed at creating better instruments for financing of the railway market.

Poland applied for a transitional period first until 2006, and later until 2012, for limited international access to the Polish market. The Railimplement study reports that this request was based on the slow progress that was made in restructuring the PKP.[3]

Poland received financial support for priority railway network investments from EU funds, including Phare, ISPA, Regional Development and Cohesion funds. Phare has supported the modernizing of border crossings. ISPA funds were directed both at restructuring line sections, as well as at providing technical assistance such as feasibility studies and project and tender documentation.

Poland also received technical assistance for strengthening the legal and institutional basis of UTK, the Polish railway regulator. This technical support covered three areas of expertise:

- Institutional framework
- Licensing, access and charges
- Safety, certification and inspection

The support consisted of expert assistance in identifying best practices in the EU and comparing these to the Polish situation.

[2] OECD, Liberalisation and Structural Reform in the Freight Transport Sector in Europe (1997)
[3] Steer Davies Gleeve, Railimplement – Implementation of EU Directives 2001/12/EC, 2001/13/EC and 2001/14/EC (2005)

The New Member States have had to transpose a large amount of railway acquis which was adopted during the negotiation period. This has resulted in a focus on transposition of law. This process has a rather good record, with only few transition periods for international market access in Hungary and Poland. However, implementation is lacking behind and practice, the new member states have encountered several difficulties:

- Fulfilment of the role of the regulatory authority as an independent body
- Independent authority or manager for train path allocation Settlement of bilateral agreements on border crossings
- Cross subsidization of freight and passenger transport partially through high infra charges
- Lack of focus on railway strategies due to concentration on EU legislation

Another important effect of the focus on EU legislation is the lack on focus on railway strategies. This includes for instance economic evaluation of the length of the railway network and the possibility of closing down of obsolete lines. Such strategy would involve politically disputable decisions, particularly if envisaging also the deplorable state of the road network.

6. Qualitative Assessment of actual impacts

The last decade has been sort of a pilot period for the EU. Different countries have developed various models to implement the EU legislation. Exemplary models are those of the UK (full privatization), Germany (vertical separation) and France (accounting separation). Models vary in regulatory structure, level of separation and privatization. Poland has chosen the German model, with a state owned incumbent company with recognisable subsidiaries. This results in a more transparent structure for entrants to the market. However, there have been complaints against PKP Cargo about abusing its dominant market position which have resulted in several fines.[4] Text box 2 gives a more detailed insight in models of several other countries.

Text box 2: How other CEE countries redistribute the market power of the railway industry

Hungary

The Hungarian market is characterized by a duopoly of two state owned companies. These companies have so far introduced accounting separation for the divisions infrastructure, freight, passenger and rolling stock. The regulatory authority is closely related to the central government. In addition, both state and local level governments in 2004 have awarded 8-year contracts with the current operators for freight, thereby excluding competition until 2012. Passenger transport is experiencing a shift to road, since this mode was formerly heavily subsidized by the government.

Czech Republic

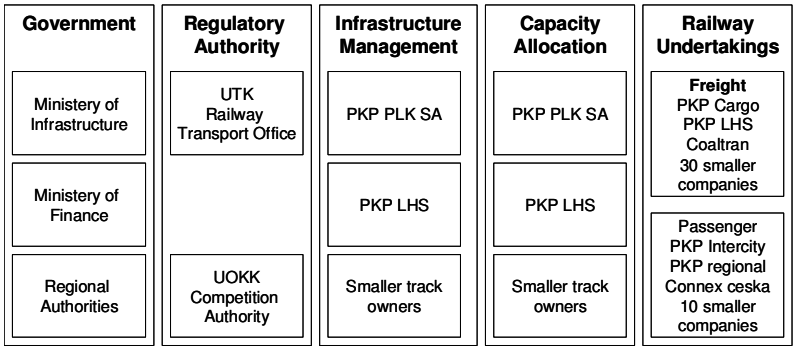
The Czech Republic has chosen a rather complex structure for the division of infrastructure and transport operations. Even though there is a separate company for infrastructure management, this company has contracted out this responsibility to the state owned transport operator. The regulatory authority has very limited responsibilities. Whereas law in the books is not very far-reaching, in practice there access to the network and competition, mainly in the freight market. The rail market is losing market share to road both in freight and in passenger transport.

[4] The Polish Railway Market (2006)

Slovakia

In Slovakia, the former incumbent has been divided in three state owned companies: infrastructure, passenger and freight. The railway authority has limited responsibilities. In theory, the market is open to third parties, but in practice there are very few active on the network. The antimonopoly office of Slovakia in 2006, has handled a case were the incumbent (Cargo) was accused of abusing its dominant position by a private company (LTE). This resulted in a fine for Cargo

Several organizational restructurings have taken place in Poland. The former incumbent operator PKP has been split into a holding company and several groups with separate accounts. In addition, a regulating authority was established: the UTK. This authority is responsible for issuing licenses and for handling appeals against the timeslot allocations on the network. Schematically, the organisation looks as depicted below:



- Government: The Ministry of Infrastructure and the Ministry of Finance are both shareholders of the UTK, with the MOI having regulatory powers. The government also provides financial support for infrastructure and public service obligations.
- Regulator: The UTK is the main regulating body in the railway sector, responsible for licensing and safety, but also to monitor the level of competition and to approve the charges. The latter functions are executed in cooperation with the competition authority.
- Infrastructure: The PKP (owned by the Ministries of Infrastructure and Finance) provides track access to the state railway networks.
- Undertakings: PKP operates both in freight and in passenger transport. Its many subsidiaries are combined in one holding company but publish separate accounts.

The market for passenger transport is still characterized by the monopoly of PKP. The six passenger companies operating the network are actually 5 PKP subsidiaries, and only one independent company, operating local transport in Warsaw. The market is in decline, since passenger kilometres are decreasing contrary to the trend in the EU 15.

For the freight market, things are looking quite different. Competition is conquering market share at the expense of PKP. The market has shown a slight decline over the past few years, even though the freight market as a whole has been growing.

A special edition of Railway Market reports in 2006 that the total number of companies competing is approximately 20, of which 8 operate on their own separate networks.[5] In addition, the market is characterized by a takeover rush with the bigger private companies taking over smaller ones.

[5] The Polish Railway Market (2006)

The Railimplement study surveyed stakeholders in the industry and identified barriers inhibiting access to the freight market.[6] These stakeholders represent the European market, both old and new member states. Apart from industry structure and technical standards, respondents mentioned:

- "Size of the company: in this capital intensive industry large investments are necessary to enter the market;
- Lack of information and transparency of incumbents: where formerly all railway information was located in one company, now some information should be publicly available for other operators;
- Poor quality of national regulation;
- Congestion of railways infrastructures;
- Lack of locomotives: especially due to safety regulations the number of certified trains is not sufficient;
- Lack of train drivers."

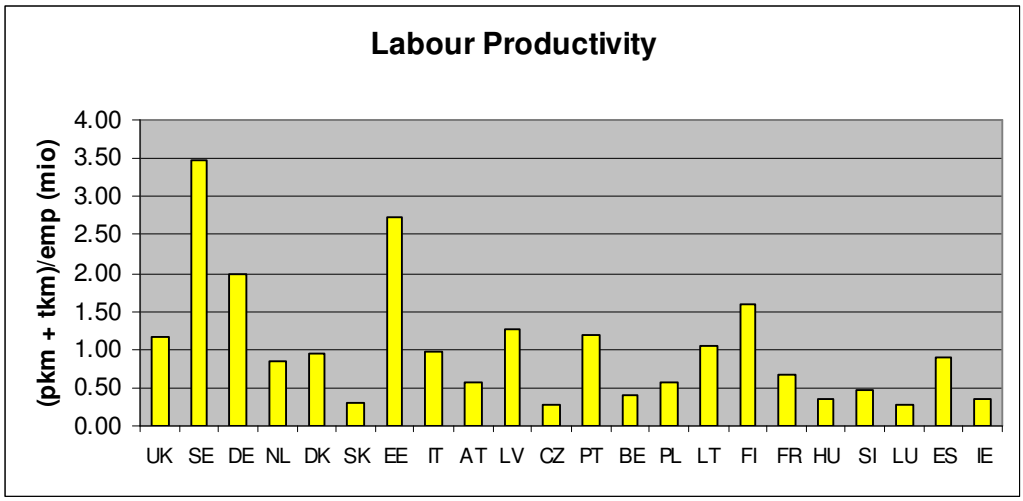
7. Overview of benefits

Poland has managed, at least for the freight market, to open up the market. In the IBM/DB study Poland scores 11th place on the liberalization index, which means it comes in first of all the accessing countries, but also beats EU 15 countries such as Belgium, France, Greece and Spain.[7]

The same study also measures the competition index, where Poland makes it only to the 15th place. Here, countries such as Estonia, Slovakia, Latvia and Czech Republic pass by Poland, as well as Belgium. In both indices, United Kingdom, Sweden and Germany are at the top.

On the level of liberalization and competition Poland is an average performer in the EU. The question remains whether these conditions actually lead to a more efficient rail sector. One possible way to measure efficiency is by means of labour productivity. In the graph below labour productivity is presented. The countries are ordered on the basis of their score in the competition index (UK being the most competitive railway market, Ireland the least). Poland scores 43% below the EU 15 average of 1 million km per employee (.57 mio km/employee). The figure below shows labour productivity for the EU countries.

[6] Steer Davies Gleeve, Railimplement – Implementation of EU Directives 2001/12/EC, 2001/13/EC and 2001/14/EC (2005)
[7] IBM/DB, Rail Liberalization Index 2004, Comparison of the Market Opening in the Rail Markets of the Member States of the European Union, Switzerland and Norway (2004)

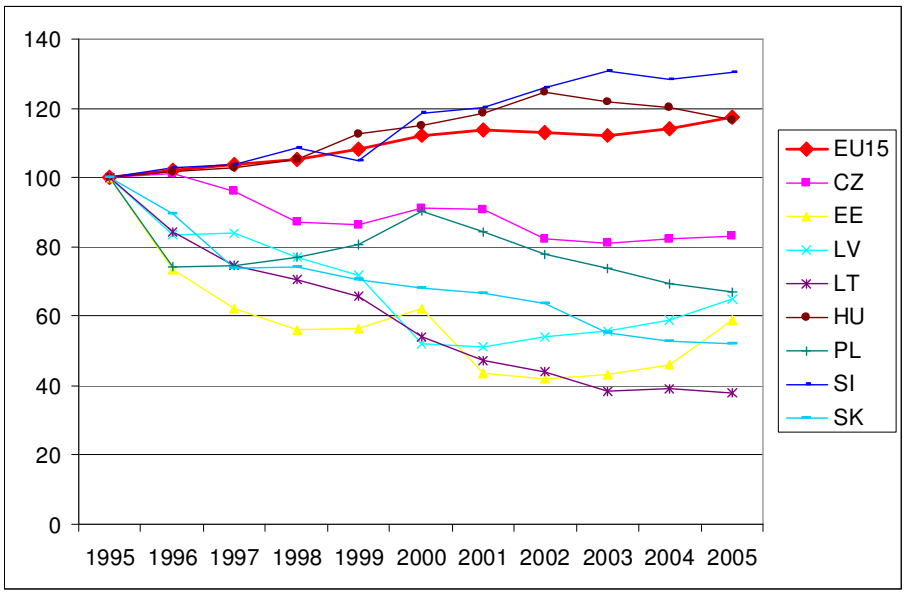


Source: Statistical Pocketbook 2006 (data for 2004)

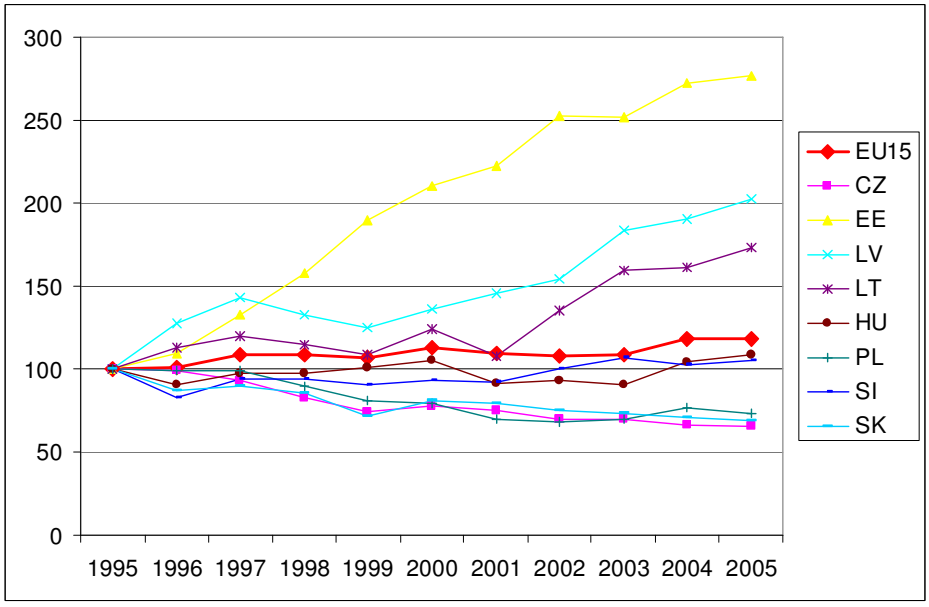
The underlying trends that explain this difference are that most countries in the EU, including Poland, are downsizing the rail sector employee base. This trend was already started in 1990 due to a sharp decrease in state subsidies to PKP. Rail employment decreased from 360.000 in 1990 to 210.000 in 1998, to 133.000 in 2004. According to the CBET study, the decrease is partly explained by former "social employment" and will therefore not affect the level or quality of service.[8] Social employment includes for instance activities that are not related to rail, such as postal services and health care. However, the Thematic Report indicates that the reduction in employment is not enough to counter the reduction in passenger and ton kilometres, which in the period between 1993 and 2002 decreased by 30%.[9] This shows that labour productivity of the PKP has not improved over time.

The rail sector in the EU as a whole has experienced an increase in volume, both in freight and in passenger transport, while Poland has experienced a decrease and lost market shares road. The figures below indicate the volume developments for passengers and freight.

[8] European Commission, Multi-Country Transport Programme, Cost and Benefits of Enlargement, Poland Country Report (1999)
[9] EC Harris, NEA, RebelGroup, Systra, Thematic Report I: The Institutional Framework (2004)

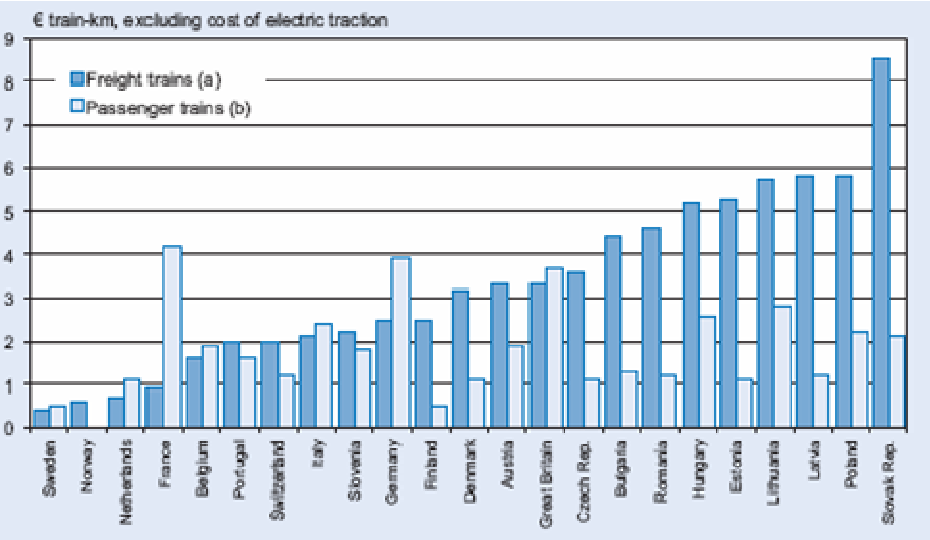


Passenger volume development pkm (Eurostat 2006)



Freight volume development TKM (Eurostat 2006)

The decrease in Poland is partly due to the high access charges for rail, whereas road has no such charge. The figure below shows that Poland's infra charges, especially for freight, are among the highest in the EU.



Source: UIC

8. Stakeholder evaluation

In order to evaluate the liberalization of the railway market in Poland, information and opinions from different Polish stakeholders have been gathered. These stakeholders include PKP Group, a private operator, UTK, the Ministry of Transport and the European Commission, departments of Transport and Energy and Enlargement.

PKP restructuring

PKP was mainly responsible for the restructuring of the labour base, which took a lot of training investments, adding further to their debt. Unprofitable lines are not closed down due to influence from local authorities, parliament, trade unions and the Ministry of Transport.

Future restructuring of PKP is already being planned. PKP PLK, the infrastructure manager, will be taken out of the PLK group, for reasons of transparency and independency. In the new structure, PLK will be directly managed by the Ministry of Transport. Moreover, in 2 years, the cargo and international division of PKP will probably go to the stock exchange as separate companies.

Market competition

In Poland the first private train already rode the tracks in April 2002. An important difference with the German market is that competition is of a different nature. In Germany, the former state operator DB allows private operators to fill niches and competition is therefore of a friendly kind, while in Poland competition is more direct and against PKP.

Mergers and acquisitions, which are also an indication of competitive forces, are taking place at an international level. Examples include:

- A joint venture of rail cargo companies is expected to be established summer 2007 with German, Russian and Polish operators.
- Hungarian cargo (MAV Cargo) is tendered out summer 2007. PKP is one of the bidders.

- CTL Logistics, a Polish private operator, acquired a German rail operator beginning of 2007.
- Two of the current private operators in the Polish market are expected to be taken over this year.

Quality of transport is becoming an increasing factor of importance in tendering procedures. Private operators are keen on obtaining quality certificates which enable them to prove quality levels.

Regulation function (UTK)
UTK started operating in 2004. Now, there are 76 licensed operators, mainly in the freight sector. This number is the second highest in Europe.

The model for determining access fees uses the factors usage and speed and is based on the full cost method. The fee is a result of the cost that the infrastructure manager has budgeted for a year. Components consist of fixed costs (80%) and variable costs (20%). The fees increase with the quality of the network, such as speed. Indirect costs are also included, for instance credit, investments and maintenance fee.

Access fees are high, but also unpredictable. The UTK sets different fees annually, which makes it difficult for operators to plan ahead. A legally binding document would be desirable.

Infrastructure investment
The Polish government is planning major investments with 19 billion euro's of support form EU funds (85% Cohesion fund, 15% Regional Development Fund). Of this amount, 58% is spent on roads and 25% on railways. The Polish government is currently investigating the possibilities for a road pricing system. Road pricing will create more of a level playing field between road and rail, since operators on rail are already paying a fee for the use of infrastructure.

The investments on rail are focussed on modernization, interoperability, rolling stock for local lines and technical assistance for project documentation. Modernization involves increasing speed to a level of 120-160 km/h (rail – cargo), which today sometimes is as low as 20 km/h. This investment will therefore highly contribute to the efficiency of the railway operators. Furthermore, a masterplan for the railway sector is currently being developed, including a feasibility study about a high speed line between the three major Polish cities.

9. Conclusions

Liberalization
In terms of liberalization Poland is an average performer in the EU. Even though legislation has been adopted at an EU level quite recently, Poland has succeeded in transposing the larger part into national legislation. Some issues are still in the process of implementation. For instance, the structure of PKP is not final yet: the infrastructure manager may be removed from the holding into a company directly managed by the MOT and some subsidiaries of PKP may in the future be privatized.

Competition

The level of competition in Poland in the domestic freight market is developing positively, with several operators serving the market. For international companies, Poland has requested a prolonged transition period. In the passenger market, there no actual competition since the only private operator is active on a local level.

The independence of the regulatory authority varies between EU countries. The German authority can be viewed as the most far-reaching in these terms. However, in many countries the railway authority is closely related to the ministry of transport and/or the incumbent railway. The same story actually goes for train path allocation. Even though vertical separation has taken place on paper, the incumbent in practice still has a lot of influence. The infra charges for freight operators in the NMS are much higher than in most of the EU15 countries. This is one way of establishing a cross subsidization between freight and passenger transport.

Efficiency

PKP, as the largest Polish operator, has not been able to realize efficiency gains. This trend is mainly due to the decreasing volume of transport both in the passenger and the freight market. Only recently the volume seems to have stabilised.

Case Study “Implementing the road inspectorate in Poland”

By:

COWI

1. The "case"

Generally the legislation on road transportation is in place or in far process in Poland and the other new member states but it is also important that the rules a kept and thus enforced. Therefore it is necessary to set-up necessary instruments such as a road inspectorate to enforce the rules for commercial goods and passenger traffic.

Road Inspection aims to ensure that there is effective inspection of especially commercial transport (trucks and busses) in EU and, thereby, to ensure that commercial transport in EU are operated according to similar rules on e.g. driving and resting times, transport of dangerous goods, vehicle condition etc.

This case study will assess the implementation and impact of a road inspectorate in Poland. This case study will attempt to answer:

- What institutional measures needed to accompany the adoption of EU-legislation?
- How did the Ministry come to a design for an effective institutional infrastructure for enforcement?
- Did the Ministry establish independent bodies for enforcement?
- How did the NMS succeed in recruiting and training staff?
- Was Technical Assistance present? What type(s)?
- Was Twinning Assistance present? What type(s)?
- Which was most effective and why?
- What is the quality of enforcement currently?

Based on answers of the above questions some general conclusions for EU will be sought and recommendations for future accession given as far as possible.

2. EU Acquis on road inspection

The road transport Acquis requires a completely liberalised road freight transport sector market as well as liberalised international bus and coach transport.

The main legislation that Poland needed to adopt within commercial road transport are summarised in the overleaf table from the EU Transport Acquis.

The key ones related to the typical tasks of a road inspectorate are highlighted in bold and include issues such as:

- Technical conditions: weights and dimensions, speed limit devices, road worthiness testing
- Safety conditions: driving licences, seat belt use

- Dangerous goods transport
- Social conditions : maximum drivers hours, rest periods and equipment (tachograph)
- Qualitative standards for access to the profession and standards for drivers training.

Transportation of goods and passenger: • **Directive 2000/30/EC** of the European Parliament and of the Council of 6 June 2000 on the technical roadside inspection of the roadworthiness of commercial vehicles circulating in the Community; • **Directive 2002/85/EC** of the European Parliament and of the Council of 5 November 2002 amending Council Directive 92/6/EEC on the installation and use of speed limitation devices for certain categories of motor vehicles in the Community; • **Directive 2003/59/EC** of the European Parliament and of the Council of 15 July 2003 on the initial qualification and periodic training of drivers of certain road vehicles for the carriage of goods or passengers, amending Council Regulation (EEC) No 3820/85 and Council Directive 91/439/EEC and repealing Council Directive 76/914/EEC • Regulation (EC) No 561/2006 of the European Parliament and of the Council of 15 March 2006 on the harmonisation of certain social legislation relating to road transport and amending Council Regulations (EEC) No 3821/85 (on recording equipment in Road transport) and (EC) No 2135/98 and repealing Council Regulation (EEC) No 3820/85 (driving and rest times) • **Directive 2006/22/EC** of the European Parliament and of the Council of 15 March 2006 on minimum conditions for the implementation of Council Regulations (EEC) No 3820/85 and (EEC) No 3821/85 concerning social legislation relating to road transport activities and repealing Council Directive 88/599/EEC • **Council Directive 96/26/EC** of 29 April 1996 on admission to the occupation of road haulage operator and road passenger transport operator and mutual recognition of diplomas, certificates and other evidence of formal qualifications intended to facilitate for these operators the right to freedom of establishment in national and international transport operations (and further amendments) • **Directive 2003/59/EC** of the European Parliament and of the Council of 15 July 2003 on the initial qualification and periodic training of drivers of certain road vehicles for the carriage of goods or passengers	**Transportation of goods:** • Council Regulation (EEC) No 881/92 of 26 March 1992 on access to the market in the carriage of goods by road within the Community to or from the territory of a Member State or passing across the territory of one or more Member States (and further amendments) • Council Regulation (EEC) No 3118/93 of 25 October 1993 laying down the conditions under which non-resident carrier may operate national road haulage service within a Member State (and further amendments) • Regulation (EEC) No 484/2002 of the European Parliament and the Council of 1 March 2002 on drivers certificate (and further amendments) • **Council Directive 94/55/EC** on the approximation of the laws of the Member States relating to road transport of dangerous goods (and further amendments) • **Council Directive 95/50** on uniform procedures for checks of the transport of dangerous goods by road **Transportation of passenger:** • Council Regulation (EEC) No 684/92 of 16 March 1992 on common rules for the international carriage of passengers by coach and bus (and further amendments) • Council Regulation (EC) No 12/98 of 11 December 1997 laying down the conditions under which non-resident carriers operate national road passenger transport services within a member State (and further amendments) **General road safety:** • Directive 2006/126/EC of the European Parliament and of the Council of 20 December 2006 on driving licences. • **Council Directive 96/96/E**C of 20 December 1996 on the approximation of the laws of the Member States relating to roadworthiness tests for motor vehicles and their trailers;

These regulations have been put in place to ensure a liberalised road freight transport market with fair competition (vehicles and drivers are approximately working under same conditions) and to ensure road safety.

3. The expected impacts

The accession negotiations with regard to road transport were intense, because of concerns within the EU-15 that their markets would be overrun by cheap hauliers from NMS.

On average the wage costs per truck of an EU-15 operator were 5 times those of a NMS haulier[1] and as it was expected that compliance with even less stringent existing rules than EU requirements was poor in some countries especially among smaller operators and drivers. The concern was that NMS drivers would substitute more expensive EU-15 drivers or even that NMS companies would take a large share of the market. This was both due to lower wages and e.g. longer working hours of NMS drivers.

Additionally maintenance costs for trucks were lower in NMS due to lower technical requirements to road worthiness and emission standards.

To ensure fair competition and safety the NMS should during the accession process fulfil EU requirements through introduction of social legislation, speed limiters and proper enforcement of EU technical requirements. The impact of legislation on road transport is thus expected to be:

- Shorter working hours of NMS drivers
- Vehicles fitted with tachographs
- Vehicles fitted with speed limiters
- Replacement of vehicles because of failure to pass emission tests and road worthiness tests
- Safer transport
- Environmentally cleaner transport
- Higher maintenance costs for operators to fulfil new technical standards.

Accession to the EU was also expected to improve safety in the study countries. The introduction of social legislation, speed limiters and proper enforcement of EU technical requirements will lead to a reduction in accidents.

As a result of especially the implementation of technical, environmental and social conditions, the costs of domestic road transport and bus passenger transport were expected to increase. For Poland, these effects were expected to be a rise in costs of about 23% per kilometer for domestic road freight transport and for bus passenger transport 5%.

To ensure effective enforcement of the legislation an associated impact is the creation of enforcement institution(s) with training and employment of staff. Such an institution could be the creation of a road inspectorate which should enforce regulations on dangerous goods, access to the profession and general enforcement of road sector regulations.

4. Implementation process and status

This section covers the implementation process of the road transport legislation and related enforcement in Poland and the present status. In this section the following questions are covered:

- What institutional measures were needed to accompany the adoption of EU-legislation?

[1] International Road freight Transport (Halcrow Fox/ NEI: Costs and Benefits of Enlargement (CBET), 1999)

- How did the Ministry come to a design for an effective institutional infrastructure for enforcement?
- Did the Ministry establish independent bodies for enforcement?
- How did the NMS succeed in recruiting and training staff?
- Was Technical Assistance present? What type(s)?
- Was Twinning Assistance present? What type(s)?

4.1 Adoption of Laws on Road Transport

Status on adoption of laws on road transport

The laws on road transport in Poland that is relevant for the General Inspectorate are more or less implemented in full range especially through the amendments provided in the Act of Road Transport. This also includes introduction of fines for drivers violating the provisions. The list of implemented directives on road transport into Polish legal system is shown below:

- Directive 2000/30/EC - Implemented by the Road Transport Act of 6 September 2001 (Journal of Laws 2001 No 125 p. 1371) and Law on Road traffic of 20 June 1997 (Journal of Laws 1997 Nr 98 p. 602).
- Directive 2002/85/EC - Implemented by the Law on Road traffic and the Minister of Infrastructure Regulation on the technical conditions of vehicles and the scope of their essential equipment (Journal of Laws 2003 No 32 p. 262).
- Directive 2003/59/EC - Directive was implemented into the Polish legal system by the Act of 17 November 2006 on the amendment of the Road Transport Act and on the amendment of the Law on road traffic (Journal of Laws 2006, No 235, p. 1701). The Act amends the abovementioned laws concerning the initial qualifications, periodic trainings of drivers, driver qualification cards, requirements of training centers.
- Directive 2006/22/EC - Directive has not been implemented yet due to the procedural retardation.
- Directive 96/26 - Directive was implemented into the Polish legal system by the Road Transport Act and Act of 20 April 2004 r. on amendment and abolishing some bills in accordance with the Poland membership in EU (Journal of Laws 2004 Nr 96, p. 959).
- Directive 2003/59/EC - Implemented by the Law on Road traffic and Act of 20 April 2004 r. on amendment and abolishing some bills in accordance with the Poland membership in EU
- Directive 94/55/EC - Directive has been implemented by Act on road transport of dangerous goods of 28 October 2002 (Journal of Laws 2002 r. No 199, p.1671)
- Directive 95/50/EC - Directive has been implemented by Act on road transport of dangerous goods of 28 October 2002 (Journal of Laws 2002 r. No 199, p.1671)
- Directive 96/96/EC - Implemented by Law on Road Traffic of 20 June 1997 (Journal of Laws 1997 Nr 98 p. 602)

It is assessed by Poland that the road transport acquis concerning safety and other road transport provisions in general have been implemented to a satisfactory degree. Road transport comparing to other means of transport is harmonised at highest level. National license on road transport has been replaced by common license, which has been issued on the carriers' request. Driving time, break and rest period has been also regulated through introducing of tachographs.

Laws not adopted yet

Two directives have not yet been adapted to Polish law. Directive 2006/22/EC has not yet been implemented due to procedural delays. However, a project which will implement this directive has been prepared on the amendment of the Road Transport Act and on the amendment of the Act of road transport of dangerous goods.

The time frame for implementing and adapting Directive 2006/126/EC of the European Parliament and of the Council of 20 December 2006 on driving licenses is 19 January 2011.

Further action planned

The General Inspectorate of Road Transport has planned a range of control procedures during in 2007 connected with Polish membership of the European Union and Euro Control Route (ECR)[2].

The main task of the General Inspectorate is to manage EU regulations concerning road transport and to ensure and carry out control. Accordingly the General Inspectorate of Road Transport plans for the year 2007 to take the following actions in the field of commercial transport and road inspections:

- To implement the Directive 2006/22/EC of the European Parliament and of the Council of 15 March 2006 on minimum conditions for the implementation of Council Regulations (EEC) No 3820/85 and (EEC) No 3821/85 concerning social legislation relating to road transport activities and repealing Council Directive 88/599/EEC,
- To implement control in the scope of amended provisions concerning driving time, break and rest period in accordance with the Regulation 561/2006 Regulation (EC) No 561/2006 of the European Parliament and of the Council of 15 March 2006 on the harmonization of certain social legislation relating to road transport and amending Council Regulations (EEC) No 3821/85 and (EC) No 2135/98 and repealing Council Regulation (EEC) No 3820/85,
- To implement new control procedures on driving time, break and rest period using the purchased equipment and software to read and analyse data in accordance with implementation digital tachographs in EU, being the recording equipment in road transport according to Annex 1B to the Council Regulation 3820/85 implemented by the Regulation 2135/98 and amended with the Regulation 1360/2002 and the Regulation 561/2006,
- Working out and delivering to the European Commission the report of the technical condition of the vehicles in road transport in accordance with the Directive 2000/30/EC and Directive 2003/26/EC in accordance with the task, which have been compelled on General Inspectorate of Road Transport in the Act of Road Transport.

Poland has not communicated data to the Commission for the period 2003-2004 regarding the number of commercial vehicles checked, classified in seven categories in accordance with the Directive and by country of registration, and the items checked and deficiencies discovered. This is according to a Report from the Commission to the

[2] The objective of Euro-Contrôle-Route is for national enforcement agencies to develop a joint standard of training and organize exchange programmes for their staff. In addition, it standardizes inspection procedures and carries out joint checks. The national agencies that participate in ECR check, for instance, whether HGV loads are properly secured and whether drivers have complied with mandatory rest periods, and also carry out bus and coach checks. Euro-Contrôle-Route was launched back in 1999 by France, Belgium, Luxembourg and the Netherlands. Germany, the United Kingdom, Spain, Poland, Ireland and Austria joined later.

European Parliament and the Council on the application by member states of Directive 2000/30/ec of the European Parliament and of the Council of 6 June 2000 on the technical roadside inspection of the roadworthiness of commercial vehicles circulating in the community.

The planned activities as part of the cooperation in Euro Control Route include:

- Information exchange on the infringement of the law by the entrepreneurs in road transport.
- Information exchange about controls carried out on the base of the European Directives e.g. 2000/30, 2006/22, 95/50;
- Organization of common international controls,
- Equipment of the inspectors, who carry out road transport control unification,
- Establishing of common interpretation of the directives and regulations in road transport,
- Establishing uniform control procedures,
- Managing periodical trainings of inspectors within exchange programs.

4.2 Main institutional measures provided to accompany the adoption of EU – legislation

This section introduces some of the institutional measures needed to adopt EU legislation on driver training and testing, driving time, break and rest period rules and digital tachographs.

Implementation of driver training and testing

The amendments to the Road Transport Act and Road Traffic Law submitted by Minister of Transport related to drivers who work in international or national road transport companies and render free services in transport of goods and passengers were passed on 1 August 2006 by the Council of Ministers.

On 3 January 2007, Act of 17 November 2006 amending Road Transport Act and Road Traffic Act came into force (Journal of Laws, No 235, item 1701). This Act aims to include the provisions of Directive 2003/59/EC of the European Parliament and of the Council of 15 July 2003 on the initial qualification and periodic training of drivers of certain road vehicles for the carriage of goods or passengers amending Council Regulation (EEC) No 3820/85 and Council Directive 91/439/EEC and repealing Council Directive 76/914/EEC.

This act states that each driver applying for a job for the first time will be obliged to take on a qualification course and take an examination. The courses will be organized by special driving training centers registered by the governor of voivodeship. A qualification test, which finishes initial qualification, will be conducted in training centres by a board of examiners appointed by the governor.

Additionally, the driving training centers will every five years hold periodic training for drivers. Having completed the training, the drivers will get a professional qualification certificate.

Because the whole qualification course will require the centre to have proper technical equipment or – alternatively – simulators for driving in special conditions, so as not to

limit the entities that conduct the training, the Act stipulates that special entities may be commissioned to run the tasks that require the special equipment – driving training centres (ODTJ). As there is no legal basis in this area, the Act stipulates that a new regulated economic activity may be established to run driving training centres. This activity is to be supervised by a voivodship governor because of special significance for the courses themselves as well as for traffic safety, and single driving training policy in the country.

The amendments establish that an employer shall issue a special book of a driver that will contain information on medical and psychological check-ups, other specialist qualifications and also a registry of vehicles that a given driver has driven.

The frequency of obligatory medical and psychological check-ups is also supposed to change. Drivers under 60 will take the check-ups every five years, and those above 60 – every 30 months. The amendments will harmonize the Polish Law with EU law.

Implementation of rules on driving time, break and rest period rules

On 11 April 2007 Regulation (EC) No 561/2006 of the European Parliament and of the Council of 15 March 2006 on the harmonisation of certain social legislation relating to road transport and amending Council Regulations (EEC) No 3821/85 and (EC) 2135/98 and repealing Council Regulation (EEC) No 3820/85 came directly into force.

The Regulation specifies provisions relating to driving time, break and rest period rules for drivers performing mobile road transport activities, engaged in national and international road transport within the Community in a uniform manner in all Member States, to harmonise the conditions of competition between modes of inland transport, especially with regard to the road transport sector, and to improve working conditions and road safety.

In the area of driving time, break and rest period rules, Regulation (EC) No 561/2006 introduces amendments that differ from the present provisions. Some examples are presented below:

1 Regulation retains the present maximum provisions for driving time within 24 hours: 9 hours with possibility of extension up to ten hours twice a week. It is a new solution to specify a maximum provision of a weekly driving time – 56 hours, together with the present provision of two-week driving time – 90 hours. Drivers, performing mobile road transport activities, are still obliged to meet the driving time requirement under the Driving Time Act of 16 April 2004.

2 Daily rest period is still 11 hours without break. Alternatively, daily rest period may be taken in parts. However, new provisions allow dividing rest period in two, and not as yet – three parts, of which one has to last 3 hours at least, and the other - 9 hours. Earlier, if the rest period was divided, one of them had to last 8 hours. What is more, it is still in force that drivers must not shorten rest period to minimum 9 hours more than 3 times a week. Accordingly, because new provisions guarantee adequate rest period, it is no longer in force to compensate for reducing daily rest period.

3 In the area of weekly rest period, the Regulation states that within two consecutive weeks, drivers should take two regular weekly rest periods (45 hours) or one

regular weekly period and one reduced, which is then to be compensated. It is for the first time that drivers are allowed to take rest once a fortnight at least of 45 hours (so called regular rest period). Earlier, the provisions allowed to reduce weekly rest periods, on condition that due compensation is granted.

4 It is still in force that drivers are forbidden to work more than 4.5 hours without break. Break period in driving may be divided into parts, but one of them should last 15 minutes at least, and the other – 30 minutes at least. At present, it is possible to divide break period into parts, and each of them should last 15 minutes at least.

Implementation of digital tachograph

Digital tachographs have been obligatory in Poland since 1 May 2006. The use of digital tachographs has fundamentally improved the efficiency of control organs enforcement of the principles of vehicle driving time in road transport. Control organs have stronger capacity to enforce the principles with respect to drivers and road transport operators.

The following institutions were involved in the implementation of digital tachographs in Poland:

- Ministry of Transport and Construction,
- Ministry of Economy,
- Central Office of Measures
- Ministry of Interior and Administration.

The implementation of digital tachographs required interdepartmental consent to uniform concept of legal premises and technical terms.

In Poland, the system of digital tachographs is complete as regards its organization, use, and legal and technical issues. It also complies with safety standards, laid down in European Commission „Member Country Politics – Poland".

Polish Security Printing Works – PWPW S.A. – pursuant to its statutory task of printing tachograph cards, established Polish Centre of Electronic Certification, Card Personalization Centre and Tachograph Card System Management Centre. Having passed a series of tests, PWPW S.A. joined the European teleinformation network TACHOnet, received certificates to cryptographic keys and since 1 May 2006 it has been receiving applications and issuing four types of digital tachograph cards for driver, operator, workshop and control.

Difficult negotiations between PWPW and Ministry of Transport and Construction with respect to fees for digital tachographs were successful at the end of April 2006. The fee level was based on PWPW investments and forecasted operational costs of the system and road transport operators whom the fees were consulted with.

Control of tachographs

Under Regulation (EC) No 561/2006, the Member States are enforced to specify the frequency of data entries in digital tachographs and drivers' cards by road transport companies. They are obliged to keep those records and show them on demand. The Minister of Transport will issue a separate regulation in this area.

Regulation (EC) No 561/2006 introduces, on one side – an updated catalogue of vehicles and road transport activities (Art. 3), excluded from its provisions as well as Regulation (EEC) No 3820/85 of 20 December 1985 on the recording equipment (OJ L370, 31.12.1985, p. 8, with later amendments; OJ Polish Special Edition, ch. 7, vol. 1, p. 227, with later amendments), on the other side – a list of derogations, Art. 5-9, Regulation (EC) No 561/2006 (Art. 13, item 1).

In addition, Regulation (EC) No 561/2006 obliges the Member States to lay down the provisions for:

- Drivers who are engaged in regular carriage of passengers, whose driving run is not longer than 50km. The provisions should guarantee due protection in the area permissible driving time and obligatory rest and break periods,
- Fines levied for non-compliance to the provisions under the Regulation, and their enforcement. Those fines must be effective, proportionate, deterrent and indiscriminatory. The provisions in this area are included under the Act on drivers' hours and amending some other acts, being at the final stage of the legislative procedure in the Parliament.
- The Ministry has established the road transport inspection – General Inspectorate of Road Transport (introduced by the Road Transport Act).

4.3 Independent body for enforcement

To enforce the above mentioned legislation the Ministry has established Road Transport Inspection – General Inspectorate of Road Transport (introduced by the Road Transport Act).

General Inspectorate of Road Transport.

The General Inspectorate of Road Transport was established by the Act on Road Transport adopted on 6 September 2001 (Journal of Laws No. 125, Item 125, as amended) and is charged with enforcement of Poland's transportation laws.

The inspection is conducted by the General Inspectorate of The Road Transport as a central state authority under the Minister of Transport, and thus liable to the Minister of Transport. The General Inspector is appointed by the Prime Minister and the General Inspectorate of Road Transport is implementing the tasks of the General Inspector operating under his direct guidance.

To assist in the management of the General Inspectorate the General Inspector has the Assistant of the General Inspectorate, the General Director and the Directors of Offices. The internal decisions concerning road transport inspection is made through ordinances, decisions or instructions of the General Inspector.

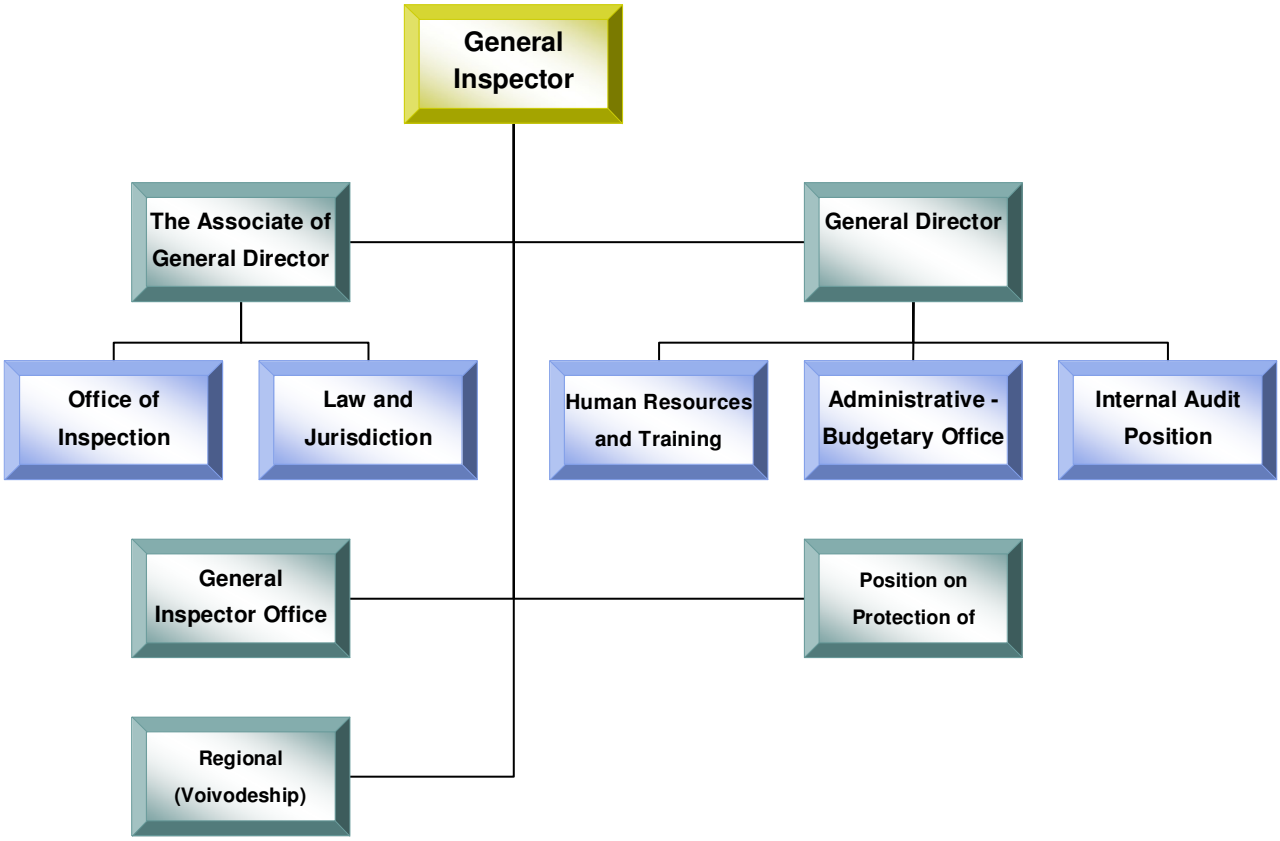


Figure 9 Structure of General Inspectorate

The rules concerning the organisation of the General Inspectorate of Road Transport is Ordinance No. 98 of the Prime Minister of 27 October 2003 concerning the statutes of the General Inspectorate of Road Transport[3]. The General Inspectorate consists - as illustrated in
Figure 9 - of:

- General Inspector Office
- Office of Inspection Supervision
- Human Resources and Training Office
- Law and Jurisdiction Office
- Administrative - budgetary Office
- Internal Audit Position
- Position on the Protection of classified Information.

The tasks of the road transport inspection till 1 January 2004 were performed by the General Inspector and the governor by hand of the Provincial Inspectorate of Road Transport. In the Act of 23 July 2003 on Road Transport Act amendment and the amendment of the other laws on 1 January 2004 the General Inspectorate and the Provincial Inspectorate of Road Transport have been established as authorities performing the road inspection tasks.

The General Inspectorate of Road Transport concentrates on seeing to that carriers observe national and international road transport law, regulating the amount of time a

[3] The Polish Monitor 2003, No. 50, pos. 775 and 776

driver can operate commercial vehicles on the road, the transport of dangerous goods and the performance of vehicle safety inspections.

As such, inspectors are empowered to:

- Examine a driver's documents connected with the road transport, including all vehicle registration and inspection documents;
- Control the technical condition of vehicles,
- Control whether the regulations concerning driving time, break and rest period are being complied.
- Control the condition of animal transport,
- Ensure compliance with Poland's transportation laws regulating the transport of hazardous materials and others.

The establishment of the General Inspectorate of Road Transport was intended to increase the safety of Poland's roads.

The Road Transport Inspection may control the companies and vehicles, but is not able to issue and take away licenses. Road Transport Inspection may only make a formal motion to deprive of license.

The inspectors work in co-operation with the Police, the Border Police, the Customs Service, the Veterinary Inspection, the State Labour Inspection, the Commercial Inspection and road managers in the scope of safety and order of public road traffic. The Inspectorate also cooperates to fight commercial crimes concerning road transport or crimes connected with these transports, according to the competences of the different bodies and inspection tasks.

Police have the same competences as Road Transport Inspection and common inspections are often being carried out. Common activities with the Police include periodic control activities on e.g. road transport of dangerous goods and the action "Safe Coach". "Safe Coach" is undertaken before holidays and public holidays where coaches are more frequently controlled and their technical condition checked and whether laws on working and rest periods of drivers are kept.

Customs Service and Border Police may only control the vehicles. For control in premises of the company the National Labour Force has the same competences to the extent applicable.

The General Inspectorate also cooperates with the local self-governments, and the associations of road carriers.

Inspections of national and international carriers, and of national and international transport are being carried out in the same way. The only difference is on the execution of penalties. A national carrier has 21 days to pay the fee. Foreign carrier have to pay the fee in the moment it has been imposed (the amount of fee may be up to 15 thousand PLN). If the fee is not paid, the vehicle will be towed away.

Whether the road inspectorate is accepted by the hauliers is difficult to say as they would generally prefer not to be controlled and often try to make inspections difficult. But they are obliged to accept the road inspection activities and inspectors. To handle

complaints and hold consultancies, etc. the General Inspectorate of Road Transport has established the Road Carriers Association. In case of complaints and motions the General Inspector of Road Transport meets carriers in the premises of the General Inspectorate.

Recruiting of staff

When the General Inspectorate of Road Transport was established, the recruiting procedure for a road transport inspector was introduced initially as guidelines of the General Inspector and currently in the General Inspector Instruction. This procedure has been established on the base of the Road Transport Act of 6 September 2001 (Journal of Laws 2001 No 125 p. 1371) and Act of Civil Service of 18 December 1998 (Journal of Laws 1999 No 49 p. 483) repealed by the Act of Civil Service of 24 August 2006 (Journal of Laws 2006 No 170 p. 1218).

The recruiting process for the road transport inspections starts on the base of the General Inspectorate regulation. According to this regulation, Provincial Inspectors of the Road Transport issue announcements of the recruitment on the notice board in their premises and in the Bulletin of the Public Information of the Chancellery of the Prime Minister. In this announcement the necessary qualifications are specified according to the Act of Road Transport.

The candidate has to fulfil these requirements to be qualified for next stage of recruitment, which includes the following additional 2 stages:

- Written exam (test of knowledge, paper work performance on the base of the provided materials, and psychological test), which checks the knowledge and the psychological skills to work on this position. The exam is performed in each voivodeship on the same day and same time.
- Oral exam – during which the interview is being managed and the candidate skills are being verified (e.g. computer skills). This exam is performed also in each voivodeship on the same day and same time after approx. one week from the written exam.

To guarantee transparent, open and competitive character of the recruiting process an employee of the General Inspector is delegated to observe the process and assess whether it is in compliance with the regulation.

The system of the recruitment for the inspector position is by Poland assessed to be at a very good level. It does not allow employment even at the position of younger inspector of road transport if the person does not fulfil one of the conditions. Furthermore there are inspectors, who have additional qualifications, higher than described in the legal acts e.g. category of driving license higher than B.

Also the training system is by Poland assessed to be at a very good level. Each year a consultation - advisory group consisted of inspectors has been established. This group decides about the issues that will be trained on the trainings. It gives the possibility for inspectors to choose the trainings, which concern the issues that interest them or with which they have problems.

Training of inspectors

The candidates for inspectors have to participate in 6-months-lasting trainings in accordance with the Minister of Infrastructure Regulation of 5 January 2002 on the specific conditions of practice performance, the way of expert courses organization and managing the qualification exams for the candidates for inspectors of the Inspection of Road Transport (Journal of Laws 2002 No 5, p. 50).

The Programme for training of inspectors shall consist of the following issues:

- Organisation and tasks of Road Transport Inspection,
- Access to the market and occupation – passenger and freight transport,
- Technical condition of vehicles, Road Traffic Code, road control,
- Vehicles weighting,
- The survey of the fuel quality, protection of environment,
- Provisions concerning driving time,
- Fees for a transport on national roads,
- Transport of dangerous goods,
- Transport of waste products,
- Animal transport,
- Transport of the food-staffs,
- Control in companies,
- Giving first aid,
- Psychology.

At the end of the half year training the candidates for inspectors pass the theoretical and practical exam. The theoretical exam contains 50 test questions with a possibility of multiple answers, while the practical exam is being performed on road, where the candidate for inspectors must carry out control. In this way only candidates who pass all exams may become inspector.

Additionally in accordance with the article 76 of the Road Transport Act, each inspector is liable at least once a year to training organized by the General Inspectorate of Road Transport to improve his professional knowledge. This training is being organised in different periods, so the inspectors may choose the most convenient time. If the inspector for some reason cannot participate in the training there is a possibility to change the time of training for such an inspector.

Number of authorised inspectors and recent development

During the last five years of the functioning of the Road Transport Inspection the authorisation to carry out controls has been provided to 379 persons (in accordance with the Act of the Road Transport). Currently 333 persons have authorisation of which 14 are chief officers, and 15 of are Managing Directors in the divisions. As an effect of staff turnover during last 5 years in the Inspectorate of Road Transport 46 inspectors have stopped working in these positions.

According to Polish informants the Inspection of Road Transport is considered to be a good employer. During the recruitment process on the position of inspectors there are approx. 10 candidates for one position competes. Regarding privileges connected with inspectors work, the only privilege is the possibility to achieve fringe benefits up to 100% of the salary (in practice that is rather a dozen or so percent).

4.4 Assistance provided

Poland has received both Technical Assistance (TA) and Twinning in relation to the implementation of the requirements/legislation in the Transport Acquis.

The Road Transport Inspection has received financial assistance in the amount of approx. 2 million EUR within Twinning Program PHARE PL 9908.01 –"Preparation of the legal basis and establishing of the Road Transport Inspection in Poland" for the actions connected with the establishing of the inspection and also for the first trainings. Experts from France and Germany advised on the description of tasks and organization of the Road Transport Inspection in this Twinning Project. They also managed the candidates training and helped in implementation of computer means. In the process of the Inspection creation, the experience of similar bodies in other EU countries, especially in France, Germany, Belgium and Great Britain has been used. From Polish side a task force was created who stayed in direct contact with the French and German experts and cooperated with them to establish the inspectorate. Poland was responsible for the organisational side of the programme while French experts were general coordinator of the programme.

The twinning was generally considered to be without problems apart from the computer system chosen by the French experts.

From the European Regional Development Fund within the Sectoral Operational Programme Transport for the years 2004 - 2006 the project Rationalization and Improvement of Efficiency of the control activity of the Road Transport Inspection No SPOT/2.3/143/05 co-finance was received for equipment. The Road Transport Inspection received 19 new special cars with office adopted to carry out control on roads.

Moreover the Road Transport Inspection has received assistance from the World Bank for purchasing special cars (approx. 6% of the stock).

The type of assistance is very different thus Poland informants find it hard to compare assistance received in the PHARE Twinning Programme with assistance from the European Regional Development Fund within the Sectoral Operational Programme Transport for the years 2004-2006.

4.5 Agenda for the future

The planned investments and improvements of the inspection quality will include the following activities:

- Replacing the information system with a more modern,
- Purchasing and installing speed cameras and GPS navigation,
- Employment of more inspectors (maybe to be doubled), and related purchasing of equipment to carry out inspections.

5. Realised impacts

This section will describe what the quality of enforcement is currently by summarising whether the enforcement is according to international recommendations and requirements, assessment from international organisations and the amount of enforcement activities carried out and typical sanctions.

The current quality of enforcement

The quality of Road Transport Inspection is evaluated by Polish informants to be on very high level and also it is compliant with European Agreement concerning the Work of Crews of Vehicles Engaged in International Road Transport (AETR).

In witness thereof the German Inspection of the Road Transport has stated that after the creation of the Road Transport Inspection in Poland the number of defective cars, which drive through the German territory, has considerably reduced.

Visits/inspections from international institutions

In November 2006 a visit took place of the representatives of the Euro Control Route (ECR). During this meeting important issues were discussed especially concerning the actions to extent cooperation scope within the Euro Control Route (ECR).

Apart from the periodic control carried out on roads by the inspectors from 10 ECR members states agreement was reached to cooperate in fields like legislation level, information exchange, common interpretation of provisions, directives and regulations, giving opinion e.g. concerning the digital tachographs implementation, harmonization of the provisions on driving time with the Labour Code.

Moreover within the project “Monitoring of the Implementation of the Digital Tachograph” in 2005, 300 road transport inspectors and 40 policemen have been trained. In 2006, Inspectors were trained with a special focus on the provisions of Regulation (EC) n° 561/2006 and 100 policemen in charge of the control of social legislation were trained in 2006.

350 road transport inspectors and 300 policemen are expected to be equipped in 2006.

Number of inspections

This section presents how many Polish and foreign truck and busses ships have been inspected per year during the last years.

Table 4 presents the number of vehicles controlled by the Road Transport Inspectorate at road inspections only and decisions issued from 2002 to 2006. Generally the number of vehicles controlled and decisions issued increased from 2002 to 2005 with a small decrease from 2005 to 2006 on especially domestic vehicles. The road inspections include technical condition, inspection of tachograph discs: for drivers from current week and 15 days before, analysis of digital tachographs an so forth.

Table 4 Number of controlled vehicles on road inspections and decisions issued

Year	Number of controlled vehicles			Number of decisions issued		
	In general	National carriers	Foreign carriers	In general	National carriers	Foreign carriers
2002	12215	9726	2489	3093	-	-
2003	85948	54515	31433	20446	-	-
2004	140989	79268	61721	42956	24579	18377
2005	158202	88583	69619	44068	25624	18444
2006	160267	73682	86585	38958	18490	20468
In general	557621	305774	251847	149521	-	-

Table 5 presents the share of decisions issued of the vehicles controlled from 2002 to 2006. Generally the proportion of decisions issued on the vehicles controlled increased from 2002 to 2004. Following accession in 2004 the proportion has decreased from 30% to 24% for both domestic and international vehicles.

Table 5 Share of vehicles controlled where decisions were issued

	% of controlled vehicles		
	In general	National carriers	Foreign carriers
2002	25%	-	-
2003	24%	-	-
2004	30%	31%	30%
2005	28%	29%	26%
2006	24%	25%	24%
In general	27%	-	-

How many sanctions

In 2006 irregularities have been discovered in approx. 137,000 vehicles in freight transport and approx. 23,000 vehicles in passenger traffic.
More than 81,000 of the inspected vehicles violated the driving time standards. These included:

- 710 – reduction of the weekly rest period of one hour;
- 5,868 – reduction of the weekly rest period of more than one hour;
- 10,236 – reduction of the daily rest period of maximum 1 hour;
- 22,498 – reduction of the daily rest period of more than 1 hour;
- 6,742 – violation of the driving time without break of maximum 30 minutes;
- 14,014 – violation of the driving time without break of more than 30 minutes;
- 4,633 – violation of the daily driving time of maximum one hour;
- 16,530 – violation of the daily driving time of more than one hour;
- 51 – violation of the driving time per periods of the two consecutive weeks of maximum 2 hours
- 381 - violation of the driving time per periods of the two consecutive weeks of more than 2 hours.

Table 6 shows the distribution of types of offences. Following violations of driving and resting time the next large group is violation of analog tachographs with more than 33,000 violations.

Table 6 Type of offences in 2006

2006	
Sort of offence	Number of the decisions issued
Violation in the applied recording devices	
Analog tachographs	33,298
Digital tachographs	50
Driving and resting time	81,663
Lack of license (entrepreneur)	507
Lack of license (vehicle)	505
Lack of license (TAXI)	105
Driver documents	
Lack of medical examinations	1.364
Lack of other documents	98
Lack of medical certificate (concerning medical examinations) issued by the entrepreneur	2.228
Lack of medical certificate (concerning medical examinations), when the driver was the owner of the enterprise.	534

Furthermore, due to the defective technical condition 9,423 driving licenses have been hold.

Type of sanctions

Typical sanctions, which were imposed on the drivers and enterprises connected with road transport are fines (mandate for the drivers). Moreover the inspection of Road Transport may make a formal motion concerning the withdrawal of license. In case of statement of the malfunction of vehicle Inspection holds the Registration Certificate of the vehicle until the malfunction will be fixed.

6. Obstacles and costs

To implement EU legislation and development of institutional changes for enforcement Poland have had and still have different costs.

The initial and probably main costs related to implementation of a road transport inspectorate are staff resources, which include hiring of additional staff and training. Costs are related to training of inspectors, safety advisors and drivers. Other costs include purchasing of equipment for enforcement, e.g. to enforce EU technical and driving hour requirements.

To enforce and operate issues related to dangerous transport the new institutions need continuously to train safety advisors and drivers, and to continue to employ staff. Generally additional staff is needed to enforce all the existing and new regulations.

The costs for development of institutions for enforcement of the legislation are rather small. The cost for developing the road inspectorate in Poland is generally related to hiring staff, staff training, purchasing of equipment and to overcome technical and procedural weaknesses.

To implement the EU legislation in Poland the following costs has also occurred:
- Fitting of tachographs
- Speed limiters,
- Replacing vehicles.

In Poland the costs of replacing vehicles were expected at 1.4 Billion Euro.

7. General evaluation

Poland has generally implemented the EU transport aqcuis for road transport. This has required the setting up of a road inspection system to enforce the legislation on road transport.

The road inspection requirements have been fully implemented by the Act of Road Transport and Act of driving time of drivers. These allow on more effective and precise activity of the Road Transport Inspection.

To establish the road inspectorate Poland needed to hire and train almost 400 staff to carry out enforcement on professional freight and passenger transport. Continuous training is needed to update knowledge on new legislation.

According to Polish informants the road inspection activity is rather appreciated by other public administration authorities especially in the scope of its contribution into the improvement of the road transport safety. Inspectors often manage training in other agencies on e.g. driving period.

Generally it is assumed that enforcement of road transport legislation has been implemented through establishment of road inspection organisations in all new member states. It seems that some old member states have kept enforcement as part of existing institutions such as the traffic police, e.g. in Denmark a branch of the traffic police is specialised in commercial transport.

Poland received both Technical Assistance and Twinning to establish the road inspectorate. The assistance provided were very different in nature as the twinning was concerned with institutional development and training while the Technical Assistance was mainly to do with equipment. It was not possible for the Polish interviewee to assess whether Twinning was better than Technical assistance or vice versa. However, it seems as twinning is a strong tool to help to implement new legislation and enforcement of the new legislation including setting up new institutions. Poland ensured their commitment by establishing a task force cooperating and working with the international experts to establish the inspectorate.

The quality of the enforcement is assessed by Poland to be rather good. This is properly the case in many of the 10 new member states as there was large focus on this issue during the accession period.

The work of the road inspectors is according to Polish informants considered to be rather good and the inspectors are used as trainers in e.g. enforcement of driving and resting times.

This may also be confirmed from the German Inspection of the Road Transport which has stated that after the creation of the Road Transport Inspection in Poland the number of defective cars, which drive through the German territory has reduced considerably.

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- Interview with Spokesman of the General Inspectorate of Road Transport in Poland:
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Case Study "The industry of logistics services in Czech Republic"

By:

1. The subject in brief

The case study focuses on how the logistics industry in Czech Republic has developed since the process of accession to the European Union started. This accession process followed a period of profound restructuring of the Czech economy and coincided with an ongoing process of reform of the road transport industry.

The case study is based on in-depth interviews with actors in the logistics market.

2. The change in conditions for the logistics industry in Czech Republic

The most profound changes the transport industry faced were those on the demand side of the market: the establishment of the internal market with free movement of goods and people in Czech Republic. This caused a massive increase in transport demand and a shift in the structure of transport demand.

Already in the 1990s – before accession – many international EU-15 companies established production and distribution sites in Czech Republic. They were attracted by the available well-qualified labour force, the lower wage and cost levels, the presence of a huge potential of customers and by Czech's central location in Europe.

The most important change of supply side conditions due to the accession were:

- The opening of the international road transport market by abolishing the quota system by which the allocation of the international transport services was controlled. This liberalisation includes cross-trades between third EU-countries, but not yet cabotage, for which several EU-15 countries negotiated transitional periods.
- Freedom of settlement, which not only applied to clients of logistics companies, but also to companies in the logistics industry.
- The adoption of regulation in the transport acquis, which included rules about the access to the profession and to the market and technical requirements.
- The abolishing of border controls at internal EU-borders.

3. Which were the anticipated impacts?

Czech companies in the road transport industry looked forward to the accession:

- They expected advantages of the abolishment of the quota system. Since cost levels in Czech companies were lower than in those of major trade partners in EU-

15, they expected to obtain a very large share of the market. Expected increases of the total trade volume would further increase the size of their market. International transport had always been the more profitable segment, so expending this market could further improve their financial positions.

- The open market was expected to increase the geographical scale of the market. Before, hauliers used to limit themselves to geographical niches in the application of international permits, particularly smaller companies.
- The abolishment of the quota system meant a reduction in bureaucracy. For incumbents of this segment however this was considered a minor issue.
- The transport industry expected serious productivity improvements due to the reducing of waiting times at borders. These waiting times were serious burdens for all international transport companies. Some of the transport services contained 2 full waiting days in a 5-day roundtrip.

Some considered the dominance of EU-15 companies as a threat to the Czech industry. EU-15 companies had closer ties with the new potential clients, which had been moving part of their production from EU-15 to Czech Republic and other NMS. These EU-15 companies were experienced in more advanced logistics services and had easier access to capital, which made them better capable of investing in assets for serving the new transport demands. There were worries in the Czech industry that through these advantages EU-15 companies would take the more profitable shares of the market and that EU-15 companies would create good positions by taking over the stronger Czech companies.

4. Remarks on the process of accession

From the public viewpoint, the transport acquis was not considered a major issue in the negotiations. Minor reorganisations in the MOT were said to by sufficient for guiding the process and there was no important role for Technical Assistance in the implementation of EU-regulation, including the restructuring of the involved public institutions. Technical Assistance was only used in relation with funding.

The transposition of legislation in national law took place in a period of 4 year, with most concentrated in 2 years. The structure of the national legislation differs from the EU-level legislation, which means that for implementing EU-rules involves more than one national law. This is partly a technical issue, which is solvable, but also a political one. Amended legislation needs to pass through parliament and parliament often uses the occasion to debate further reforms, so causing delays.

Several actors in the logistics industry point out not to be not well informed during the accession time. The industry expected that accession would imply changes in regulation, but it was not very clear during the process what would happen. Only little information was received from the MOT, but e.g. IRU took a more important role in this respect. The changes were communicated only few months before introduction, while e.g. 2 years before should have been possible. Earlier communication would have smoothened the introducing of some rules, particularly concerning technical harmonisation.

It was argued by actors in the industry that MOT was not well prepared and probably not well informed themselves. They were occupied with comparing legal parameters of

EU with current CZ legislation but hardly concentrating on the consequences of reform. The companies brought up as a reason the limited capacity in the Ministry (quality and quantity), which made it difficult to cope with the changes. One of the assumed problems was the mutations in staff. After the recent elections again several servants left, causing a brain drain and temporary deficits in the Ministry.

In the end, the reform of regulation did not seem to have brought about changes for the industry, which were difficult for companies to cope with. Infringements were few.

There was widespread disappointment about the transitional periods EU-15 countries negotiated for free labour movement. This was considered unjustified. Despite the many efforts of Czech society of complying with EU-requirements, EU-15 countries kept NMS away from potential benefits if these could threat EU-15 positions. The situation was considered as inequality in treatment and rights between EU-15 and NMS citizens.

The transitional periods for cabotage, particular in some of the large EU-15 countries, were considered as mere market protection and unproductive.

5. The actual impacts

5.1 The developments in the industry

The road transport industry has become more concentrated

Before 1990 transport services were the domain of state-owned companies (CSAD) in each region. The reform and the opening of the Czech market have been ongoing since the velvet revolution in 1990. The national CSAD companies were privatised (some however succeeded only few years ago) and meanwhile many small new companies started up. The market in the mid 1990's was highly fragmented, with most of the truck fleet owned by companies with one or two trucks. Also a large industry of small forwarding companies existed. Opportunism often seemed the driving force for their establishment, meaning that many were barely qualified in the field transport and logistics and ran with very limited means.

This fragmentation decreased and this process of concentration has been accelerating since a few years. There has been a decline in the number of independent small companies. Many could not continue, just stopped or entered into larger companies:

- A typical group of companies which could not continue are those that operated older trucks and insufficiently considered depreciation in their business calculation. The productivity of these companies was often low and of many the operations were less than full time and on limited scales. During their existence, these operations – marginal and low-cost – left sufficient margin to survive. However, replacement of the technical obsolete vehicles – for many this need occurred in the last few years – appeared not to be viable anymore.
- Many decided themselves not to continue, often for retirement. Much former army personnel for example, who started transport activities in the 1990s as a second career, now have reached the age for retirement.
- Finally, many have decided to become part of a larger group. They are either employed or full-time sub-contracted by larger companies. The larger companies take over the marketing and planning functions. They own trucks and have drivers

employed, but also control a group of subcontracted drivers with trucks, which sometimes is larger than the company itself. The cooperation provides the small companies with access to the market and increases the operational efficiency.

Meanwhile also a large number of small forwarder companies has vanished.

Czech companies increased in size by mergers and takeovers and by internal growth. The pace of growth of several companies has been very high, approximately in the last five years. Many medium-sized Czech companies went through mergers and takeovers and nowadays there are several large ones with over 100 vehicles, excluding the pool of subcontractors.

The scale of these companies qualifies them for larger service packages. The large Czech companies succeed in becoming principal partner to shippers, also international ones. Also the geographical scope of Czech companies widens. Many have become part of international networks of logistics companies, within which they have improved access to the market and through which they succeed in improving their efficiency.

Foreign companies entered the market already before accession

Foreign companies have been entering the Czech market from the 1990s onwards. Large logistics companies followed their international clients, which established plants or distribution centres in Czech Republic. They had proven expertise in advanced logistics, which was required to serve the high standard of needs of these clients.

Some others mainly operated in a market of low-cost – and low-quality – services. Their competitive advantage compared to Czech companies is due to their good access to clients and their capabilities of establishing a vast and low-cost network of subcontractors and of attracting a labour force.

A third group are those that affiliated with Czech companies or established Czech companies in the pre-accession period, in order to safeguard their positions in this market.

After the accession of Czech Republic to the EU, each type of these relations between Czech and foreign companies sustained. Nowadays they seem to benefit mainly from internal growth only. Their absolute positions will not be lost, but due to the fast development of the Czech logistics industry, the relative positions of the foreign companies decrease.

The availability of a large pool of single-driver-companies has been a critical success factor for many foreign companies. The number of drivers in this pool tends to decrease, which seems to be particularly threatening to the foreign companies.

Logistics services… foreign domination?

Large-scale operations in the early stages were the domain of foreign companies with Pan-European or global networks. It was fairly easy for the foreign forwarding companies to enter the Czech market. They often followed their clients who resettled their production and distribution and opened new facilities in Czech Republic. Their clients were used to outsource all logistics services, preferably only to one or few logistics service providers.

In the 1990s Czech companies had no proven capabilities and no sufficient scale for providing a full package of logistics services. Those days even those clients which looking for Czech logistic partners for the contracting out services would not succeed.

Since few years larger Czech companies have been starting off in the market of logistics services, initially as subcontractor to foreign companies. Most still have these international logistics companies as their major clients, but few also successfully enter as full logistics service provider into the shippers' market. They have obtained sufficient scale for these services, and gathered sufficient experience for coping with the shippers' requirements. This trend mainly materialised in the last few years.

The increasing presence of capable logistics companies also has changed the attitude of the larger clients. Nowadays they require from any service provider to be one-stop-shops, and therefore will only consider companies who meet this standard and are capable of providing a good quality of all logistics services. This is an important pull-factor for the further developing of the Czech industry from an industry of road services into an industry of logistics services.

Today the Czech logistics industry is still in an infant stage. However, Czech companies learn from this closer cooperation with the client and from their cooperation with foreign companies and are going fast through learning curves for the improvement of logistics services.

An important enabler of the development of logistics companies was the availability of foreign capital. Foreign investment companies have taken large shares in Czech companies, some are owner. These investment companies have no interest in the setting up of logistics services as such, but expect – and obtain - good revenues from their investments due to the huge increase in demand for transport. Also for the industries of leasing (trucks) and real estate (warehouses, offices) these provided solutions for scarcity of investment capital in the country.

5.2 The changes in the production of services

The disappearing of internal borders has had a direct impact on the operational efficiency of transport services. The customs handling time and particularly the waiting times at the border were a huge barrier in international transport. Common were border delays of 2 hours on mid-weekdays and up to 8 hours on Mondays and Fridays. Traffic was much 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.

After the EU-enlargement border delays are reduced to around one hour. In general international short-distance traffic benefited most of this change. An example was mentioned of traffic with Poland in which the number of truck round trips could be increased from 1 to 3 per week. On average, the waiting times of trucks at borders comprised between 15 and 25% of the weekly operating times, depending on total travel distance, which now is marginalised. This has reduced the fixed cost component of the transport operations, with total cost reductions sometimes near 15%.

The advantages in costs due to efficiency improvements meanwhile have been offset by increases in cost levels: the fuel prices increased, salaries increased faster than inflation, allowance costs for EU-countries are high and the Czech Krone revaluated. Operational costs in Czech companies are still lower than in its trading partners of the EU-15, but they seem to be rapidly converging to EU-15 levels. Within Czech Republic costs also differ, e.g. salaries in the region of Prague are higher than in other regions.

The fact that Czech companies are excluded from cabotage in many EU-15 countries reduces their efficiency. The denied access to the national markets implies unnecessary empty hauls in round trips, meaning inefficiency and therefore higher costs. The impact is high in the large countries, like Germany and France. The Transition Periods for cabotage are considered merely protective by Czech companies, with no proper economic argumentation. The concerns of EU-15 about Czech companies entering the national markets are considered as ungrounded: it is not likely that the home base for operations will shift from Czech Republic to EU-15.

The liberalisation of the international transport market reduced the administrative burden, but the related cost savings should not be overvalued. One unexpected problem was that the customs at the external EU-borders were not always prepared for a new flow of documents. For example the handling of custom's documents in North Sea ports still is a problem. They are not only faced with an increasing of the document flow from NMS, but also with the lower rate of standardisation of documents from NMS, partly due to the use of national languages. The consequences in the delays in customs handling in the seaports are felt in the full logistic chain, including shippers, shipping lines and forwarding companies.

5.3 Labour scarcity: a key problem

The labour shortage has become a principal problem in all companies. Most large companies have many vacancies, which cannot be filled up. The available qualified labour is limited, and the perspectives are not good, because of the demographic structure – high number of drivers is close to retirement - and the limited interest for young people to enter the profession. The raising of salaries, good secondary working conditions and the providing of training facilities are common means to increase the attractiveness of the profession, but all appear insufficient. Meanwhile, the need for labour keeps increasing due to the increase in transport demand.

The attracting of labour or the subcontracting to trucking companies from Bulgaria, Romania and Ukraine is considered as a solution to some, however increasing demand in these countries is expected to also lead to shortages there. Moreover, language problems makes that labour from these countries is less attractive.

The emigration of labour to other EU-15 countries may have contributed to the labour scarcity, however probably only marginally. Before accession working abroad attracted many drivers because of high wage levels and because of the adventure, but nowadays both advantages are far less pronounced.

The scarcity exists in EU-15 companies as much as in Czech owned companies. The international companies were more appealing to many labourers in the 1990s. They had modern business environments, advanced logistics services and modern real estate.

This is still an advantage of the international companies in the labour market. Not appealing however, are the often standardised production schemes of some of the largest of them, in which drivers had routine functions, which makes them less attractive for drivers and subcontractors.

Several companies criticised the European policies, because the legislation on driving times and the new legislation on working times are restrictive and decrease the productivity. Many also stated that EU contributed to the negative image road transport has to the general public, because road transport is always depicted in a negative way (pollutive and causing congestion), while alternatives are not available and while the road transport industry has put a lot of effort in greening their operations. This image definitely exposes on the labour market.

5.4 The competition

After the abolishment of the quota system the share of the Czech Flag on bilateral relations with EU-15 countries increased to very high levels, commonly over 90%. This was actually what was expected before accession. Because of the lower operational costs Czech companies could offer their services at lower prices than EU-15 companies.

The profitable pre-accession prices in these international trades could not be maintained however. Clients were well aware of the efficiency gains after the vanishing of border controls and negotiated lower prices. Moreover, the abolishment of the quota system attracted more Czech companies to the market and therefore caused more competition. The prices in international traffic dropped up to 20%, depending on the transport relation.

Competition by companies of other NMS – particularly Poland - was expected, but in practice hardly developed. Polish companies had sufficient and better paid opportunities in traffic between Poland and EU-15.

Meanwhile the quality of services has become an important part of the competition as well as the capability of developing logistics concepts and adopting logistics functions, like warehousing.

The concept of intermodality is quite well developed in the hinterland traffic of maritime containers, but it gets no foot in the continental transport market. In the latter segment, intermodal transport is not considered capable of providing reliable services which can compare to road transport quality yet. Rail and inland waterway transport have their position in transport of bulky goods, but are not considered serious competitors in the market of road haulage.

6. Evaluation

Convergence after unequal starting positions

The enlargement integrated transport industries with different characteristics: the industry of Czech Republic which was fragmented and could be characterised as low-

cost and the industry of international companies from EU-15 countries, which was a mature industry with large companies, often specialists in full logistics services. Starting positions were different and this evoked concern for unequal competition from both sides.

The expected impacts happened: Czech companies succeeded in obtaining a larger share in international traffic and EU-15 companies obtained a foot in the Czech market. The latter actually already happened before the accession of Czech Republic into the EU. It seems however that the “disrupted” situation can be characterised as temporary disequilibrium: costs differences seem to converge and competences of Czech companies develop rapidly, however after a slow start.

The labour market: a common problem

The labour market is a structural bottleneck for development, for all companies in the logistics industry. The scarcity is not only in drivers, but establishes in other functions in the transport market as well. International and Czech companies are both affected. The segment of low-cost transport is expected to be the first to face difficulties, but surely not the only segment. Czech companies nowadays seem to be in a better position for attracting Czech labour.

Limited impact of the transport acquis on industry

The impact of the transport acquis on the logistics industry has been limited. The regulation for access to the market and to the profession and the adoption of technical standards for vehicles may have accelerated that companies in the market fringe – low-productive and low-cost operators – vanished. The minimum requirements however hardly affected the market of logistics service providers and of international transport, because these companies already complied with EU-rules.

Customer requirements trigger improvements in service quality and efficiency

The development of the logistics industry and the competences in the companies mainly result from the high pressure on the market: the volume increases and the client’s requirements for full ranges of logistics services. Companies which can cope with these requirements are the ones that survive.

The development of logistics competences is recent in Czech companies. They learn stepwise. The provision of high-level training in logistics, e.g. on university levels, is still not present, but can contribute to the development of the industry, not only to keep up with increasing demand, but also to innovate logistics systems for example into less labour intensive ones.

7. Sources:

The report is the result of a visit to Czech Republic in May 2007. Meetings were with:

- Vojtech Hromir, CESMAD Bohemia (Road Haulage Association)
- David Chromy & Jozef Melzer, M+L Logistics
- Borek Hajek, CS Cargo
- Mirka Kohoutkova & Jan Holemy, OK Trans
- Mr. Lunak, MAERSK
- Jan Bezdekovsky, Ministry of Transport

Case Study "Flag State Control Implementation in Cyprus and Malta"

By:

TRANSPORT & MOBILITY LEUVEN

This case study investigates the effects of Cyprus EU accession on the Cypriote maritime fleet. The central point in the analysis is the responsibility of the flag state to enforce international maritime safety rules. To enforce these rules flag states organise ship inspections by specific authorized organisations.

1. Framework

1.1 Flag State Control

Flag state are states where ships are registered. As such, they are required to have their ships compliant with the measures regarding international safety. This rule and the different accompanying safety measures are fixed in different conventions, like UNCLOS (United Nations Convention On The Law Of The Sea), SOLAS (convention on Safety Of Life At Sea), …

In practice however, flag states do not always exercise the necessary control on their ships. No international organisation or court can oblige flag states to inspect their ships properly.

Especially flag states that have registers of convenience or open registers, are not very demanding for their ships. The inspections they organise are of low frequency and low quality. They impose few or no restrictions on their ships concerning for example nationality of crews, place of financing and construction of vessels, or ownership. Cyprus and Malta were such open registers before the EU accession process started. Opposite to the open registers are the traditional flag states with national registers, for example the United States and Germany. Traditional flag states typically have national restrictions in terms of ownership, ship building, crewing and trading. In between are the hybrid flag states that act under the colour of a national authority but adopt many of the operating characteristics of open registries.

1.2 Port state control

Flag states do not always perform the necessary inspections of their ships and sub standard ships remain in use as explained above. Therefore a harmonised system of port state control has been introduced aiming at eliminating the operation of sub standard ships. Port states can do inspections on ships while a ship is in a port, thus ensuring that these ships meet international safety, security, and environmental standards, and that crew members have adequate living and working conditions. If inspections show deficiencies, ships will be taken in detention until compliance. For port states, the incentive of doing frequent and high quality inspections is much higher than

for flag states. Port states have in general an important coast line and are therefore the first potential victims of shipwrecks of low quality ships.

1.3 Paris MOU and black list

Port state control is organised by different organisations and conventions. In Europe, the Paris Memorandum of Understanding (Paris MOU) is the basis for port state control. For Asia and the Pacific, the Tokyo MOU organises port state control. In the US, the US coast guard organises it.

The Paris MOU consists of 27 participating maritime administrations and covers the waters of the European coastal States and the North Atlantic basin, from North America to Europe. Over 20,000 inspections take place annually on board foreign ships in the Paris MOU ports. Statistics of these inspections are publicly available in the annual reports of the Paris MOU. Based on the number of detentions in relation to the number of inspections of their ships, flag states get a ranking. From this ranking, three lists of flag states are derived:

- A black list containing the flag states performing worse than average, their ships are detained more than average.
- A white list containing the flag states performing better than average.
- And a grey list containing the flag states having an average performance.

Ships from the black list will be more frequently targeted for inspection under port state control.

Malta and Cyprus were on the black list of the Paris MOU when negotiations for accession started.

2. The European maritime policy

The EU maritime policy on safety and environmental protection started in 1993 with the communiqué *"A Common Policy on Safe Seas"* [COM(93) 66 final, 24.2.1993]. The objective was to make maritime transport safer, to avoid environmental catastrophes and to protect coastal zones. It was based on four pillars:

- Convergent implementation of existing global international rules,
- Uniform enforcement of global international rules by the port states,
- Development of navigational aids and traffic surveillance infrastructures,
- Reinforcement of the EU's role as the driving force for global international rule making.

The reinforcement of Flag State Control and the introduction of port state control are two pillars of this policy.

The reinforcement of 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. It goes without saying that the quality of these inspection companies is of major importance. 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. If a member state wants to allow another organisation to carry out inspections, the directive has to be adapted. This implies an agreement of the Commission.

The EU port state control is organised in Directive 95/21/EC and based on IMO Resolutions and the Paris Memorandum of Understanding.

Other directives adopted as a consequence of this communiqué concern: minimum level of training of seafarers, working time of seafarers, ships carrying dangerous goods, environment friendly tankers, and safety requirements for new and existing seagoing fishing vessels of 24 meters of length and over.

These measures have been completed after 2000, with measures from Erika packages and the Prestige package. Also the creation of the EMSA (European Maritime Safety Agency) was part of the later EU policy on maritime safety.

3. The challenge of European enlargement for Malta and Cyprus

Malta and Cyprus have been important players in the maritime world for some time before accession. They were both among the top 10 of most important merchant fleets (see also Table 7). With their accession, the European maritime fleet increased by more than 50%.

Their fleet quality however was very poor. Ships of the Cypriote and Maltese fleet were significantly more detained after port state controls than the average ship of other flag states. Both countries were on the black list of the Paris MOU.

	Tanker		Dry Bulk		Full Container		Other**		Total	
Flag of Registry	No.	DWT	No.	DWT	No.	DWT	No.	DWT	No.	DWT
Panama*	1,134	58,382	1,503	94,482	587	20,803	1,598	13,497	4,822	187,164
Liberia*	572	46,084	311	18,876	398	13,818	196	3,043	1,477	81,821
Greece	**301**	**32,032**	**295**	**19,781**	**43**	**2,116**	**91**	**513**	**730**	**54,442**
Bahamas*	249	26,362	183	10,085	70	2,042	477	5,024	979	43,513
Hong Kong*	124	9,864	402	23,775	91	3,086	116	2,119	733	38,844
Malta*	**243**	**14,841**	**445**	**19,011**	**57**	**1,296**	**427**	**3,651**	**1,172**	**38,798**
Singapore	445	19,834	134	10,187	177	4,616	130	2,206	886	36,843
Cyprus	**142**	**7,070**	**396**	**20,684**	**120**	**3,286**	**317**	**3,245**	**975**	**34,285**
Marshall Islands*	231	24,606	80	5,480	78	1,734	67	1,449	456	33,269
China	300	5,088	351	12,499	130	2,683	776	6,220	1,557	26,490
Norway (NIS)*	285	13,000	77	6,963	4	80	209	3,165	575	23,207
United States	104	5,618	20	837	84	3,257	204	3,322	412	13,035
Japan	233	5,940	140	4,628	13	469	169	833	555	11,871
India	118	7,549	88	3,401	7	131	73	282	286	11,363
Isle of Man*	136	7,623	23	2,175	14	238	73	568	246	10,604
United Kingdom	**87**	**2,078**	**16**	**1,527**	**135**	**5,580**	**140**	**1,185**	**378**	**10,369**
Italy	**235**	**5,300**	**36**	**2,613**	**19**	**640**	**148**	**1,644**	**438**	**10,197**
Korea (South)	160	1,783	105	6,139	58	892	207	1,048	530	9,861
Denmark (DIS)	**76**	**3,648**	**2**	**76**	**81**	**4,984**	**85**	**325**	**244**	**9,034**
Iran	34	6,096	40	1,773	10	285	39	673	123	8,827
Top 20 Flag	5,209	302,798	4,647	264,994	2,176	72,034	5,542	54,010	17,574	693,837
All Other	2,295	50,402	1,212	45,094	921	21,170	6,973	38,084	11,461	154,749
Grand Total	7,504	353,200	5,859	310,088	3,097	93,204	12,515	92,094	29,035	848,586

Table 7: Top 20 Merchant Fleet of the World, self-propelled ocean-going vessels 1,000 Gross tons and greater as of July 1, 2004 (Tonnage in Thousands).

The biggest challenges for Cyprus and Malta 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.

In the remainder of this report, we have a closer look on how Cyprus tackled this challenge.

4. Cyprus accession process

4.1 2000-2002: The Cypriote action plan

Cyprus intended to upgrade the quality of its fleet during the accession process from the end of the nineties on. It committed itself during the accession negotiations to the Commission on three points:

- To revoke its recognition of any classification societies not included in the EU list of approved classification societies by 31 December 2002.
- To fully support the EU position in the International Maritime Organisation regarding measures to reinforce maritime safety.
- To take all the necessary measures to progressively reduce the detention rate of Cyprus flag vessels to a level equivalent to the average record of the EU.

Cyprus put a 2000-2002 action plan in place to achieve this. This plan included measures on three axes:

(1) Intensification of Flag State Control by increasing the number and the quality of inspections of ships

- Fixing the list of verifying companies in line with the EU directive.
- Aiming one unscheduled inspection per year per ship.
- Carry out specific inspections for overaged bulk-carriers (older than 23 years, larger than 14,500 GT) with deletion of some of them from the register as a consequence.
- Plan extra inspections for ships of companies having detention rates above average detention rates.
- Engagement of supplementary inspectors and surveyors to provide world wide coverage (surveyors will check the inspector's work).
- Specific guidelines for ship inspection; these should check whether or not:
  - Ships certificates and documents are in order.
  - Fire-fighting appliances are properly maintained.
  - Life-saving appliances are adequate.
  - There are no structural deficiencies on the ship.
  - Seafarers are properly trained and perform adequately in emergency drills.
  - Living conditions on board are up to standard.
  - There is adherence with requirements laid down by international conventions.
  - (MARPOL73/78, SOLAS, International Convention on Load Lines, etc)
  - The Safety Management System on board is adequate and meets the requirements of the ISM Code.

  Note that the procedures followed during the inspection are those stipulated in the "IMO Port State Control Procedures" manual.

- Specific guidelines remaining in effect until the removal process when ships are detained several times within a 24 months time period.

(2) Strengthening the registration criteria

- On January 1st, 2000, age of eligible ships was reduced from 17 to 15 year.
- Different measures for further strengthening in circulars on the website of the Cyprus department of Merchant Shipping.
- Ships detained 3 times or more within the precedent 2 year period cannot register.

(3) Improving the underlying administrative system

- 25 new posts were created at the department of merchant shipping and new appointments all over the world.
- Full computerisation of the system.
- A better statistical database.

The table below shows the impacts of the stricter inspection policy in the first years. The decrease in inspections in 2001 was temporary and due to an industrial action. The process went on afterwards.

Year	Number of Inspections carried out		
	DMS surveyors	Independent surveyors overseas	Total
1998	53	113	166
1999	82	287	369
2000	90	437	527
2001	33	560	593

Table 8: Evolution in the number of inspections in the first years of the accession process.

4.2 2003: Extra efforts for the implementation

The implementation of the action plan asked for some particular efforts. The "Comprehensive monitoring report on Cyprus' preparation for membership" (September 2003) mentions the need for urgent action in the field of maritime transport. The report mentioned three major parts of concern:

(1) Human resources

- Increase staffing levels.
- Provide a clear allocation of tasks.
- Introduce modern management techniques.

(2) Modern data management

Computerise the administration in particular the ship-file management. This is of major importance to organise the inspections in a performant way. If no track is held from previous inspections, then planning future inspections is difficult.

(3) Paris MOU

Take more measures to withdraw Cyprus from the black list of the Paris MOU

The Cypriot administration worked on these points and succeeded in complying with the requests:

- Engaging new staff was the most difficult aspect. To engage more inspectors the difficulty was not attractive salary compared to a job as a ship captain.
- Management techniques were improved and a quality assurance system ISO 9001 was put in place at the Department of Merchant Shipping (DMS).
- The computerisation of the DMS went on and is actually completely implemented.
- Cyprus disappeared from the black list of the Paris MOU. In 2004 it came on the grey list and in 2006 on the white list.

4.3 2006: Cyprus an important high quality maritime player

The previous paragraphs describe the efforts of the DMS in improving the quality of the fleet. An important part of the efforts was focused on making acceptance criteria stricter to register under the Cypriote flag. The inspections and quality become also more demanding. As a consequence, the quality of the fleet improved considerably and Cyprus came on the white list of the Paris MOU.

But, what happened to the size of the fleet ? Stricter safety measures could cause a decrease in registered ships as it become more advantageous to register elsewhere for some ships.

We observe indeed a decrease in the size of the Maltese and the Cypriot fleet. Their size expressed in gross tonnes decreased respectively by 19% and 17%. In the same period, the Greek fleet, which was not affected by accession measures grew by 15%.

The Cypriot and Maltese fleets remain very important in spite of a relative decrease. They have the biggest maritime fleet in the EU after Greece. Together they still represent one third of the European fleet as illustrated in the table below. Bad quality ships (have to) leave their registers, new (high quality) ships entering the register. For these latter, it is interesting to register under a flag that is on the white list, because a white list flag implies less port state controls for the ships and consequently less waste of time (and this waste of time is a cost factor for ship companies).

	Relative	deadweight tonnage
Greece	21%	54.4
Malta	17%	40.3
Cyprus	15%	30.6
total EU fleet	100%	240

Table 9: Relative shares and absolute deadweight tonnage (1000 tons) for the three main maritime flag states in Europe (2006 EU).

5. Conclusion

The EU accession of Cyprus contributed considerably to the quality improvement of the Cypriot fleet. Since 2006, the Cypriot flag moved from the Paris MOU's black list to

Paris MOU's white list. The tremendous quality improvement of the Cypriot fleet was achieved due to a more severe registration and inspection policy.

This policy encouraged or obliged old ships to leave the Cypriot flag. At the same time more recent and better quality ships registered under the Cypriot flag. The result of these in and out movements was a decrease in the size of the fleet. Cyprus remains an important player in the maritime world.

To achieve this result, particular efforts of modernising the Directorate of Merchant Shipping (DMS) were necessary. Extra staff had to be hired, computerisation of the administration was necessary, a performant database was set up, and stricter safety and crew rules came into force. The whole proces made it clear that it was much easier to make an action plan than to implement the plan.

The evolution is also very interesting for the EU, as its fleet has increased by more than 50% with the Maltese and Cypriot accession. As a result, both the power of the Flag State Control instrument and the safety of ships passing in European seas and ports increased.

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Case Study “Freight transport in the Danube corridor”

By:

1. The subject in brief

The Danube corridor is the chain of countries and regions alongside the Danube River, linking South-East Germany with the Black Sea. The question of this case study is how the enlargement of the EU affected freight transport in this corridor. What is the impact on the respective transport modes, on their efficiency, quality and competitive positions? The focus will be on central Europe (Austria --- Hungary), where the impacts of integration of different transport systems have been most manifest.

2. The change in conditions

The EU-enlargement changed conditions for transport operations of all three surface transport modes. The EU-legislation which is most relevant to the efficiency and competitive positions of the freight transport modes is:

- The abolishing of the quota system for permits and the vanishing of customs controls at the borders for road transport.
- The separation of the infrastructure management function from transport operations and the opening of railway networks to all licensed railway undertakings for rail transport.
- Regulation meant to create a level playing field and a sound industrial environment, by defining common market access rules and quality standards and by state aid rules. All modes, road, rail and inland navigation, were subject to this type of regulation.

These rules together are meant to create a healthy transport sector, well able to develop into an efficient and competitive industry, with good quality and prices which reflect real costs.

3. The Danube corridor: starting position

The situation of freight transport on the Danube corridor in the 1990s, well before the 2004 enlargement to the European Union, can be described as follows:

- Rail and inland waterway transport had a solid position in transport of bulk goods. Nearly all long-distance transport of ores, coals, agricultural product and liquid cargo are carried by either of these modes. Both railway and inland waterway transport went through a deep crisis in the early 1990’s and then faced enormous drops in demand for transport. This initiated a rationalisation of fleet and rolling stock. During both Yugoslavia crises navigation on the Danube was obstructed. This lasted until 2005, because of the blockage by a destroyed bridge in Novi Sad.

During those periods of blockades in the Danube, transport operators and their clients established circumventing rail and maritime routes.

- Road transport operated in the market of smaller shipments, with different characteristics of the goods and much more dispersed trade relations.
- Intermodal transport is closest to road transport, since it also serves the market of smaller shipments. Before the EU-enlargement the number intermodal services was low. In the Upper Danube corridor there were services between Hungary and Germany and Austria, mainly Rolling Highway (complete trucks on the train). The international company ICF (Intercontainer Interfrigo, owned by several of the state railway companies) used Sopron in West Hungary as a hub in container traffic between West European ports and many regions in East Europe. In Sopron trains were uncoupled and decomposed. Until the end of the 1990's ICF was the sole supplier of international container services by rail between East and West Europe. Several other operators also provided connections between North-Sea ports and intermodal terminals in the upper Danube regions - particularly Austria – but none offered connections further east. Regular container services to and from the Black Sea ports did not exist, because container transhipment in these seaports was barely developed.

4. Expectations of the impacts of EU enlargement

For each of the transport modes there was reason for optimism about the future. There was confidence that the competitive positions could be kept, total transport demand was expected to rise and investments in infrastructure would increase capacity. Operators and clients of road and railways also expected that, due to the vanishing of borders for customs handling and for train operations, efficiency in international transport would increase.

Railways, inland navigation and intermodal transport all felt supported in their optimism by European policies, which were adopted on Member State levels as well, of shifting the balance between modes of transport and of encouraging a better use of infrastructure. For example much investment in the intermodal infrastructure in Hungary illustrates the optimism about intermodal transport development.

5. Actual impacts on freight transport in the corridor.

5.1 Inland waterway transport

The operational conditions for inland navigation practically hardly changed due to the EU-enlargement. Before accession navigation on the Danube was under a common legal regime for all Danube states. A consequence of the EU-enlargement was unrestricted access for all Rhine patented vessels to the Danube. (The reverse – unrestricted access for Danube vessels on Rhine - is not the case.)

The demand for inland navigation re-establishes, benefiting from economic recovery and from the removal of the blockade by the bridge in Serbian Novi Sad in 2005. The inland waterway transport demand shows an increasing trend, however business cycle fluctuations and periods of low water levels make that demand also sometimes drops.

With few exemptions, container traffic has not come off. This is in contrast to container traffic in the Rhine basin, in which waterway transport of containers is very successful. The reason for that is that even under perfect conditions, the competitive position of inland navigation between the Black Sea and the Upper Danube is not strong: long navigation time makes that costs are not much lower than of rail and road. Moreover, it is only since recent that transhipment volumes of containers in Constantza have been increasing to levels which could justify viable barge services. Constraints in fluctuating water levels make that potential customers in this segment are hesitant to depend on this mode.

The share of non-Danube flags on inner Danube traffic has hardly been affected by the opening of the marketing. An inventory by Via-donau shows 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 Romania flags had dropped due to the Yugoslavia crises and the following blockage. This share recovered, but not to former levels. German and Dutch operators gained a share, due to bilateral traffic between upper Danube regions and Rhine regions.

Alleviation of the restricted access to Rhine for Danube vessel was mentioned as desirable, even though it was not expected to lead to significant shifts in operation areas of Danube based companies, particularly not because of the current situation in which all vessels are being well utilised. Market actors regarded the required Rhine certificates a means of market protection; they were not convinced of any rational behind the controlled access and considered Danube operators as sufficiently qualified for navigation on the Rhine.

5.2 Railway transport

The potential changes in the railway market due to regulatory reform are huge: rail operators could emerge and in theory uninterrupted rail services between Austria and the Black Sea could be offered.

The market actors

The open access to railway infrastructure has attracted some private railway companies, however their share in the market is very modest and none is active in cross-border operations yet.

The establishment of new companies is a slow process. The legal constraints, like the obtaining of a licence, seem not to be a major problem anymore – not more than in EU-15. The pace of market entry is low because of the high business risks involved. In the EU-15 the new companies succeeded in entering “simple” A-B-services and this method is also being followed by new companies in NMS. The offering of a network is and in the near future will remain to be the domain of the traditional rail companies. The development into a company with a complete service network, including the organisation of local road transport, storage facilities which may be an inherent part of rail-based chains, et cetera, needs time for investment, for marketing and for maturing.

A new company also not necessarily implies a significant improvement of the efficiency or quality of the service. If performance of current railways is satisfactory or improving,

there is no incentive for the investment. Even if performance is far from perfect, it is not said that private ownership of services can break the trend: there are too many influences. Moreover there is competition, albeit not always by railway companies on the same corridor. Many shippers have the possibility of changing routes (and seaports) or shift to waterway transport, or even road for certain cargo flows.

None of the railway companies offers cross-border services. For international services customers therefore depend on a sequence of operators. Private companies are said to be in a more difficult position in this segment, because state enterprises prefer co-operation with their traditional partners, which are the other state enterprises.

The level of services

The quality of services of railways is said to be low. The lead times of transport are low and so is the reliability of the services. This poor quality level is partly due to quality constraints of the railway infrastructure network. These constraints not only cause risks to a single operation, but also affect others and affect the capacity of the network. Priorities to passenger traffic add to the difficult position of freight traffic.

Another cause of the problem is the poor quality and availability of rolling stock. Investment levels have been low for very a long period and therefore the technical state of rolling stock is poor. For current traffic the service quality may be satisfactory, however, under the present conditions it is very difficult to expand services or implement changes. Even though the current demand and its growth potential are high, investment levels remain at a low level. One reason is the uncertainty around the privatisation process: who will be taking over business and assets? It seems that the investments by state-owned companies, which carry the vast share of the goods, are still blocked because of this.

In terms of operational efficiency there are no significant achievements yet. Railway transport is still a very national issue in the NMS, like it also still is in many EU-15 countries. Customs controls and the procedures and operations for locomotive changes at borders are still as time-consuming as they were before the EU-enlargement. There has been no breaking trend in the quality or efficiency in operations within the national borders of NMS. Therefore also the costs of using railway transport – including the infrastructure charges – have not changed significantly.

There is a tendency towards more customer orientation of the rail companies, entrants as well as incumbents. The willingness to communicate improved and customer needs seem to be better understood. Of course this tendency is welcomed by clients, however there is still much room for improvement.

Transport demand

Rail transport in the corridor has been increasing slightly, due to economic growth. The increase is mainly attributable to the “conventional” rail market, i.e. the transport of raw materials and other large-scale cargo operations.

The development of the promising segment of intermodal transport was disappointing though:

- The intermodal Rolling Highway services suffered from a sharp decline in demand. The cause of this decline is the liberalisation of the road market. The limited

numbers of transit or entry permits between NMS and some of the EU-15 countries apparently were a key motive for using the accompanied rail transport service, which also had the advantage of by-passing time consuming border controls. The Rolling Highway services which survived nowadays are threatened by the development of circumventing motorways of the sea connection between ports in Turkey and the Adriatic Sea.

- Unaccompanied intermodal services (containers and swap bodies) develop on a low pace and face serious quality constraints. The former (near) monopolist ICF still has a good position in this corridor, but had to allow for competitors entering the market. This competition is mainly in the segment of hinterland traffic between the North Sea-ports and regions in the Danube corridor. The rail corridor between Constantza and Austria is considered as an important strategic axis. In recent years many investments were made in the seaport and container transhipment have been increasing since. The hinterland transport infrastructure for railways is still underdeveloped, though, which is likely to impede the position of railways in hinterland services.

5.3 Road transport

Road transport took the largest share of the growth of transport demand. The volume of road transport passing the eastern border of Austria increased from 3.5 million tonnes in 1995 to over 14 million tonnes in 2005.[1]

The development of road transport up to now seems to have been with hardly any constraint. Because of the increasing transport demand and of the low service production costs, which gave NMS-operators and initial competitive advantage, it was not difficult for the NMS-operators to obtain sufficient financial resources for upgrading their truck fleets and improving the qualifications of their personnel in a way that they fully comply with EU-regulations. Nowadays truck fleets of larger international NMS-companies actually tend to be newer than those of EU-15-companies. The enlargement of the EU obviously also much benefited the efficiency of cross-border road traffic due to the vanishing of customs clearance procedures at borders.

Road transport appeared to be best equipped to cope with cargo flows of the new industries in the NMS. For example the many plants in the automotive industry mainly rely on road transport for their sourcing and distribution. The related transport flows are massive and would allow for large-scale solutions, like intermodal transport, but shippers prefer road. Road transport's quality is good, it is easily available and costs are acceptable, so the incentive to move to other modes, which in the Danube corridor would still have to prove their capability, is weak.

The position of NMS road hauliers initially was better compared to EU-15 companies, because of the lower costs. According to a questionnaire in 2004[2] the total cost per truck in Hungary and Slovakia were about 40% below costs of EU-15 hauliers. The difference is mainly due to lower wage levels and fuel costs. Productivity parameters however reduced this difference only to a limited extent. This difference made that NMS hauliers obtained large shares in East-West traffic in the Danube corridor, many

[1] ÖIR / viadonau, 2006
[2] NEA Transport research and training, 2006

however subcontracted by EU-15 based logistics companies. Some reported shares of NMS-hauliers of 90% in this segment.

Large companies in the region report that the cost and price levels between NMS and EU-15 have been converging rapidly in the last few years, and differences are far less significant. As a consequence German and Austrian road hauliers have regained much of their shares.

5.4 Competition between the transport modes.

The segment in which the competition between road and the other modes is closest is that in which intermodal transport is an alternative. In this segment characteristics of shipments are similar: both involve carriage of truck loads or containers. Therefore, in this segment shippers have real choice between different transport modes and will compare prices and quality characteristics more narrowly. Intermodal transport in the Danube corridor is hardly present and does not attain high quality values if compared to road on e.g. transport time and punctuality. This implies that today the potential clients are only those who seek for opportunities to save costs, who have need of large scale solutions or who can obtain benefits in their logistics system by using intermodal terminals and load units as storage or time buffers.

Shifts in modal shares in the greater part of transport are determined by demand developments, rather than by modal competition. An increase in steel production for example implies an increased demand for iron ore transport, which will increase only rail and inland waterway transport. Between inland waterway transport and railways, shifts occur e.g. due to low water levels. Large customers may own assets or have long-term contracts which to some extend binds them to using rail or waterways. This also influences shares if demand fluctuates. Finally it may be that production planning requires additional sourcing on a short-term which can only be met by rail.

Changes in modal shares therefore tend to reflect the different speeds of development of different economic sectors rather than the development of competitive strength of the different transport modes.

5.5 The current situation: scarcity threatens development

The economic development in the Danube corridor has been impressive in the last decade and has caused a lot additional traffic. The need for development of infrastructure has never been ignored, but pace of actions is insufficient, meaning that all transport modes in this corridor have to face serious infrastructure bottlenecks.

Inland waterway transport can cope with demand, but a further increase may be constrained by the size of the sector. Moreover, the average age of the labour force is quite high and working in the industry appears not attractive to young people. The fact that the capacity for vocational training has vanished in Slovakia and Bulgaria is illustrative.

The opportunities for rail probably were well perceived beforehand, but the capabilities of the rail sector to cope with increasing traffic have been overrated. The restructuring of

the railway industry is likely to improve the situation and the capabilities of the railway industry, however only on the longer term. During the long process of restructuring the investment in assets and the development of services are strained. Meanwhile the infrastructure needs serious upgrading, which is a second constraint for growth on the short-term.

Road transport has been able to grow, but congestion has arrived on the scene, thanks to the freight but also to passenger traffic. Meanwhile it also has become increasingly difficult to acquire drivers in the labour, because of the increased demand and because of the declining popularity of the job.

6. Evaluation and lessons learned

Freight transport in the Danube corridor has been increasing sharply since the late 1990s. The coming and actual accession of NMS to the European Union definitely has had an impact on the settlement of new industries in NMS, but apart from that market conditions for settlement were attractive in NMS.

The impacts of the application of the transport acquis seem not to have been very pronounced for inland waterway transport and rail transport. In inland waterway transport conditions were hardly affected by regulatory change. In railways, the changes in the conditions have been quite profound, however significant impacts are not yet observed. The entrance of newcomers in the market is a first step, but the share in transport demand, particularly in international transport flows, is insignificant yet. The railway sectors have to deal with serious problems concerning infrastructure and rolling stock and the restructuring of the state railway organisations makes the market conditions are still insecure. The consequence is that development of railway transport demand is below expectations. It may be that there was too much confidence that the potential for demand in railways would be a sufficient condition for this market to develop.

Meanwhile road transport benefited most from the development in demand and from the efficiency advantage since goods can move freely. The initial situation that NMS companies were contracted for their low costs has been changing, due convergence of costs and capabilities of the NMS- and EU-15-companies.

Many of these developments to some were a (negative) surprise. The assumptions behind policies in the EU are that the regulatory package will contribute to a better use of resources (infrastructure, transport means and labour), less external costs and to a better quality of services. By many this was explained as supportive to the development of particularly rail and inland waterway transport, but it was road transport that took the benefits.

This wrong anticipation is to some extent due to a misjudgement and a lack of understanding of the functioning of the market, by policy makers as well as market actors, the latter particularly in the NMS. The attention in the reform process was too much focused on regulation and infrastructure development only, without concern about their impacts.

The threat of capacity constraints is often heard. The transport demand will continue to increase at a high pace because of the economic development in the NMS. Moreover it is likely that part of the container flow which is now handled via the North-Sea ports will be transferred to the Danube corridor. The North-Sea route will become saturated, keeping in mind growth projections of 10% per year in the next decade. There is much development required for infrastructure and for the transport sector for taking up the increasing demand.

This depicts the prospects for the short term: the Danube corridor will be a tight market under high pressure to develop, however with a poor starting position with massive investment need in infrastructure and in the development of logistics competence.

There is need for a strategy to cope with increasing freight transport development, also for short-term needs. This strategy should not only focus on infrastructure development but also contain ways of ensuring sound development of the transport sector.

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Case Study "The development of railway finances and financing"

By:

TRANSPORT & MOBILITY LEUVEN

This case study investigates the financial situation of the railways in the New Member States. First a general description based on information of the Community of European Railway and Infrastructure (CER) companies is given. Next, we have a look at the situation in Hungary and the Czech Republic to see whether we can confirm the CER affirmations.

1. Financial situation of NMS railways

1.1 Bad financial situation of the NMS railway sector

The financial situation of the railway sector in the NMS (New Member States) is bad; it has even been worsening for over ten years. This statement is based on CER data (CER 2005), as the railway sector capital decreased from 28 billion euro in 1995 to some 4 billion euro in 2004, corresponding to a reduction by a factor 7. The debts increased in the same period with a factor 4 from 2.7 billion euro in 1995 to 12 billion euro in 2004; this evolution is illustrated in Figure 10.

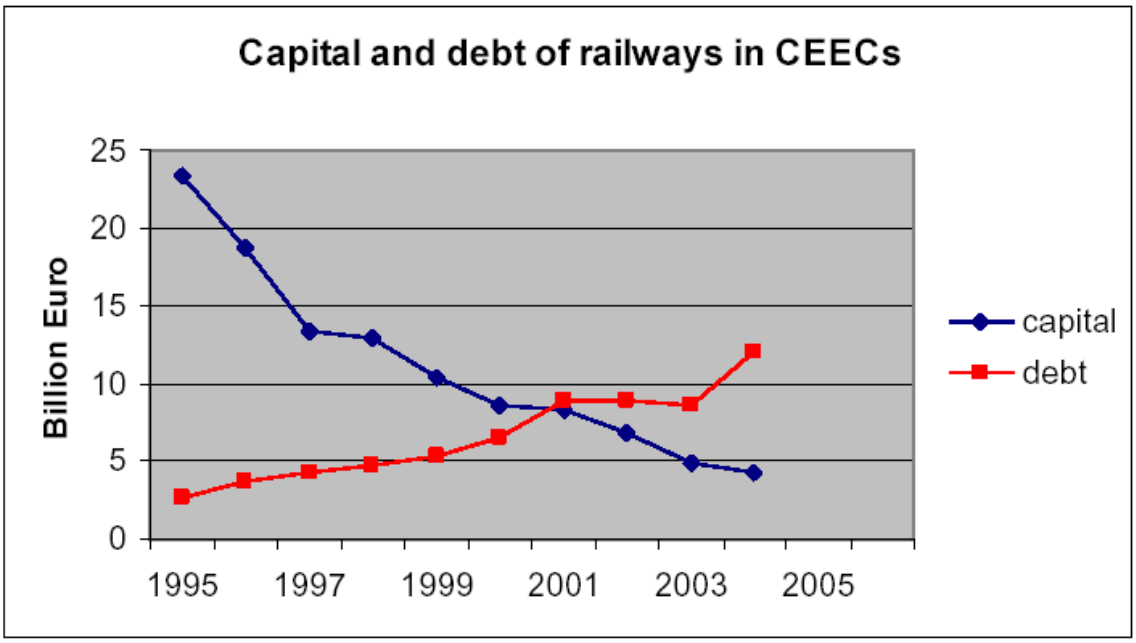

Figure 10: Capital and debt of railways in central and eastern European countries.

1.2 Reasons for the bad financial situation

Historic structural economic changes

The former centrally planned economies in the new EU member states within Central and Eastern Europe depended heavily on the rail sector for transporting freight and passengers. This dependence was supported by an economic structure based on vast heavy industries. The rail freight and passenger transport generated sufficient revenue for maintaining the railway assets. Freight transport covered often the shortfalls in revenues from passenger operations. There was no state intervention to support passenger transport and as such it was (cross-)subsidised by rail freight.

Shortly after 1989, the Central and Eastern Europe Countries (CEEC) observed a sharp decline in demand for rail transport as transport volumes reduced by 50%. This sudden change was caused by a decrease in demand for transport of industrial raw products and the steady increase in private car ownership and use. Both were consequences of the structural economic changes at that time.

To avoid increasing debts, railway companies could reorganise the sector by closing down railway lines, reducing the workforce, adapting time tables, … or get extra financial resources for the railway sector itself.

Under-compensation in public service obligations

Nor did a complete reorganisation of the railway sector took place, nor did the state provide extra financial resources. Today the NMS railway network maintains still a network that can handle twice the actual transport volume. However, the NMS financial contribution to the rail sector is still low in comparison with other EU states, as is illustrated by Figure 11.

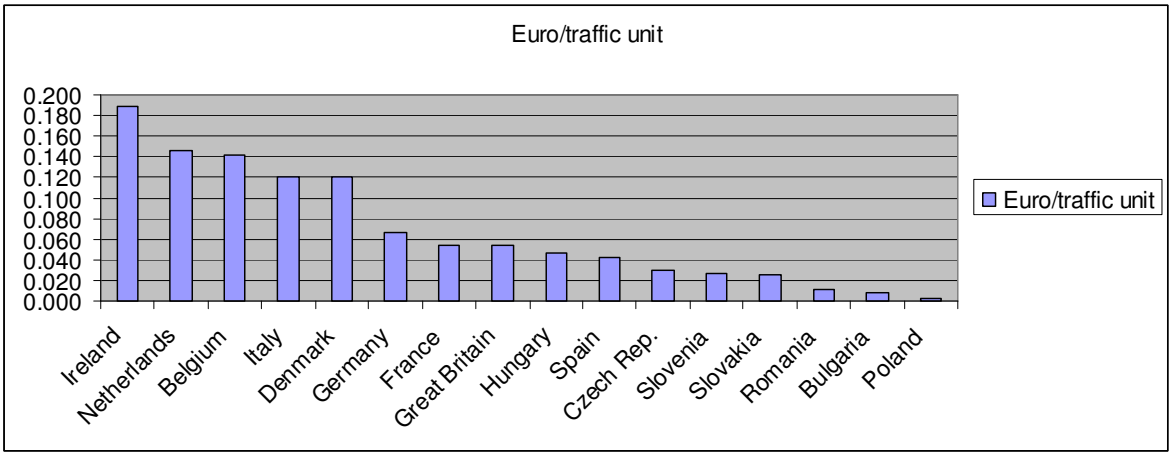

Figure 11: The state financial contribution to the railway sector in Europe(CER 2005).

The low financial contribution is a problem for the railway lines operating under a Public Service Obligation (PSO, as depicted in Figure 12) as well as for all railway infrastructure users (see also Figure 13). Railway lines exploited under the PSO are not economically viable without financial aid. For social reasons, the public authority can impose the railway operator to exploit these lines. Consequently, the European railway legislation states that public authorities have to pay the right financial compensation for this service. In reality this is not the case as illustrated in the following explanation.

For the **railway lines operating under the public service obligation** (PSO), the yearly deficit from under-compensation is estimated at some 0.4 billion euro (CER 2005), as depicted in Figure 12.

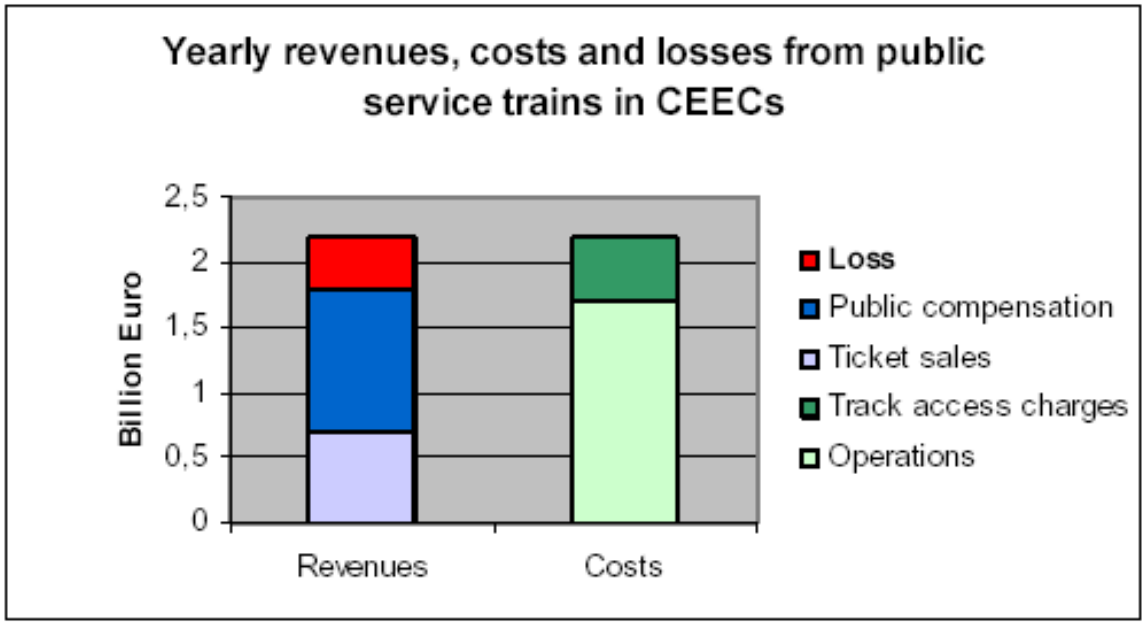

Figure 12: Costs and revenues from public service trains in CEEC.

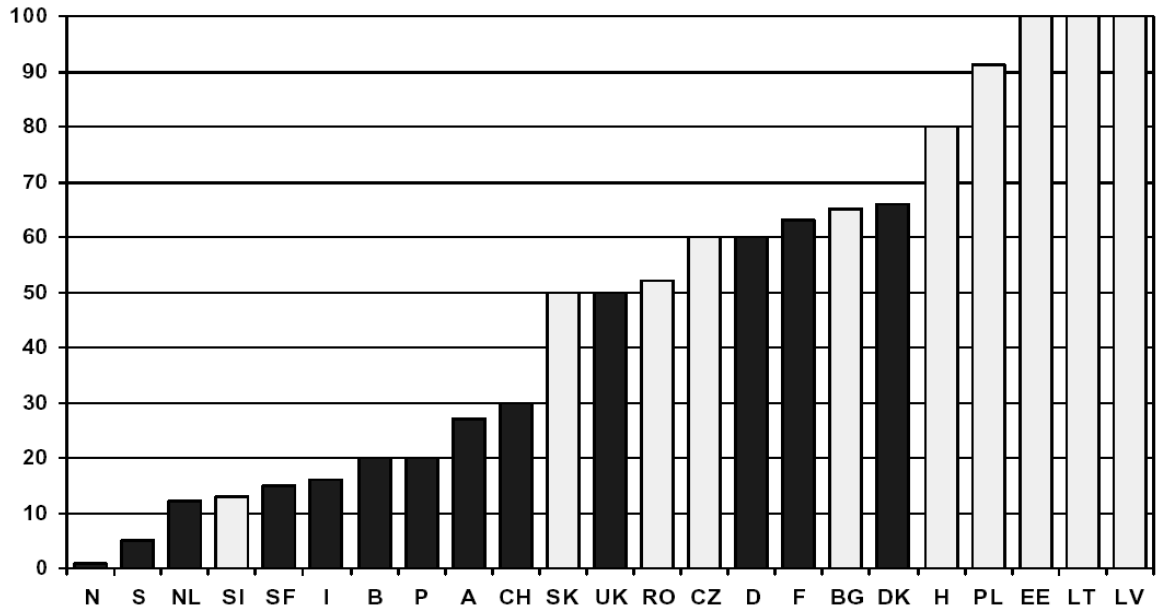

Figure 13: Cost coverage of infrastructure charges in Europe (ECMT 2005).

Rail passenger transport companies can handle these losses in different ways:

- The losses can add to the losses and the liabilities in the accounts.
- The losses can be compensated by revenues from rail freight transport in two manners.
  - Passenger transport losses are directly paid by freight revenues. This can happen when freight and passenger transport have no separate accounts. Note that this was a common practice before the structural changes in 1989; it still continues to happen.

- Passenger transport losses are paid indirectly by freight revenues via infrastructure charges.

Freight operators carry most of the burden

In many NMS the revenues from infrastructure charges to freight transport operators compensate losses in passenger transport. The infrastructure charges for freight transport are set above the “real” cost, while infrastructure charges for passenger transport are set below the “real” cost. Figure 14 gives a clear indication of this mechanism: infrastructure charges for freight transport in the NMS are high compared to the infrastructure charges for passenger transport, as well as compared to those in the EU15.

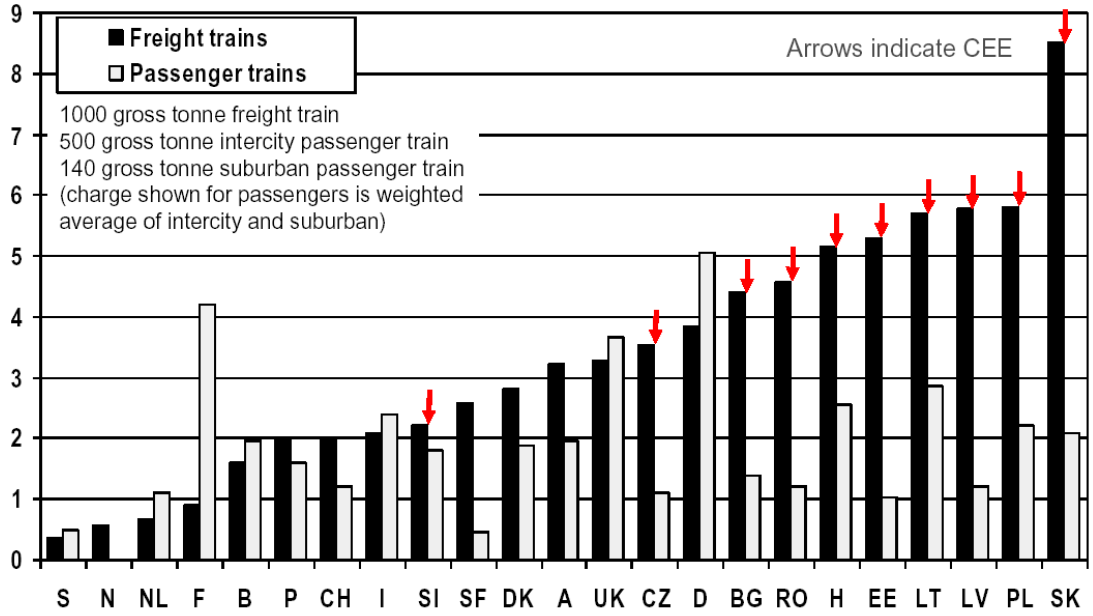

Figure 14: Infrastructure charges for freight and passenger trains in Europe (ECMT 2005).

The low financial state contribution is therefore also a problem for the **railway infrastructure users in freight traffic**. Most of the NMS infrastructure managers have to charge (nearly) full costs for the use of the infrastructure, as there is only a small subsidy for the infrastructure. Nevertheless, the EU directives authorise charges as low as the marginal costs. Infrastructure charges based on (nearly) full costs are of course higher and put railways in a less advantageous position compared to the other modes. A worse competitive position equals less transport volume and thus less revenue to improve the financial position.

1.3 Consequences

The previous Section shows how the railway sector in the NMS received insufficient revenues from the state for its public services, has only a little share of infrastructure maintenance that is state funded, while much of the infrastructure network is hardly being used. As a consequence, PSO operators make losses, which are compensated via revenues from freight transport. This compensation happens directly or indirectly via differences in infrastructure charges. Rail freight transport operators need to take high infrastructure charging, resulting in higher tariffs than economical, which makes them lose transport volume and revenues to other modes. A decrease in traffic will reduce

revenues to the infrastructure manager, who will then face more difficulties in order to maintain the network. Finally, the quality of the public service will also deteriorate. These phenomena are held up in a situation of low state infrastructure funding. This vicious circle of under-compensation is illustrated in Figure 15.

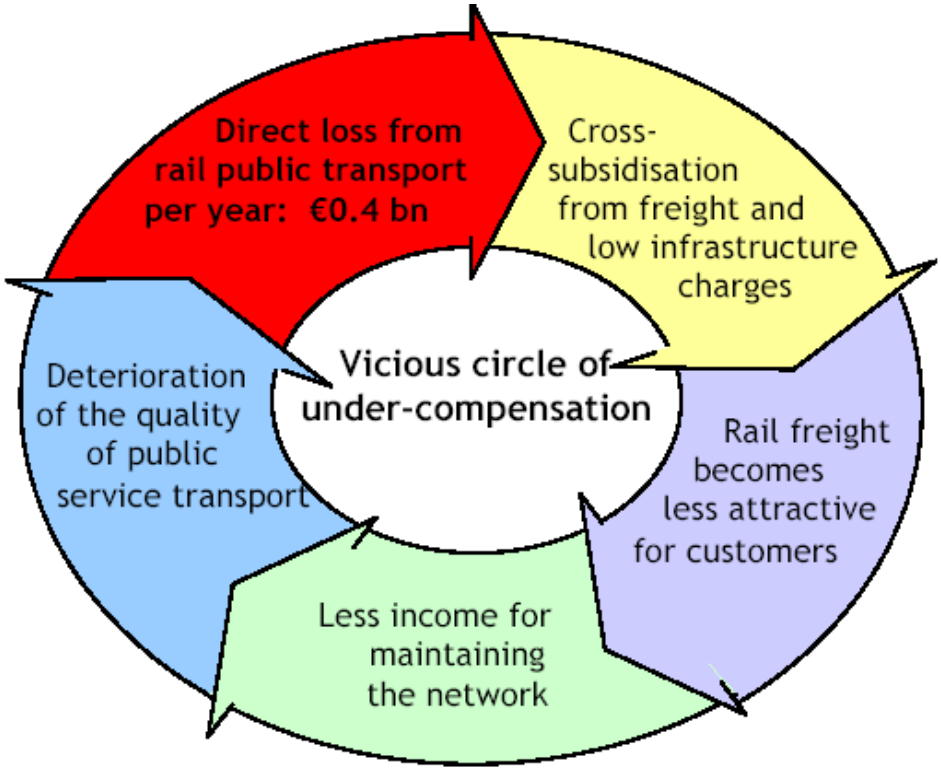

Figure 15: The vicious circle of under-compensation (CER 2007).

2. Financial situation of the railway sector in Hungary and Czech Republic

This Section looks to what extent the mechanisms sketched in the previous Section occur, more specifically in Hungary and the Czech Republic. Special attention is paid to the financial state contribution towards the railway sector. To start off, we give some explanations on the institutional railway context in both countries.

2.1 Institutional situation in Hungary and Czech Republic

In **Hungary**, all railway activities were previously part of the national railway company, MAV. From January 1st, 2006 on, freight transport has been organised in an independent company, MAV Cargo. From July 1st, 2007, passenger transport by rail was also organised as an independent company. From that moment on, the infrastructure manager, the freight transport operator, and the passenger transport operator have been three independent companies.

The split of the formerly integrated single unit was not easy to perform. The MAV Cargo (freight transport company) had to develop a number of new activities that were originally part of the central management (Information Strategy, Accounting, Computing). The real outsourcing process started already much earlier: MAV Cargo

started to work as a separable business unit within MAV already in 2000. Since then, it has independent balance sheets within the company.

The **Czech** national railway company integrated all its railway activities until 2003. From then on, the infrastructure management and the railway operations have been separated. The former remained a state owned company and remains until today a management-only company. Passenger and freight transport remained however one company. The operating company does the infrastructure maintenance, and gets paid for it by the infrastructure manager (state). Actually, negotiations are underway to separate the passenger and the freight transport operations and to create two independent companies by January 1st, 2008. However, negotiations are quite difficult due to a lack of financial resources.

2.2 Insufficient state contribution to railway sector and subsequent cross subsidies

Hungary

State subsidies
The Hungarian state pays approximately 400 million euro of subsidies to the Hungarian railway system. Approximately 12% of the total subsidy goes to the infrastructure manager and 88% goes to the passenger transport railway operator for PSO. The 400 million euro corresponds to 0.021 euro per Hungarian railway traffic unit. This is even less than the number reported in Figure 11. We can ask ourselves the question in how far this low level of subsidies is compensated either through direct or indirect cross subsidies, or both, as described in Section 1:

- *Compensation through direct cross subsidies?*
  Freight and passenger transport operations have been separated for some years now, whereby the former was only recently transformed into an independent company. This means that we can exclude direct cross subsidies in the Hungarian case. However, during earlier years, direct cross subsidies from freight to passenger transport were quite a normal practice; they concerned 30% to 40% of the passenger transport company budget.

- *Compensation through indirect cross subsidies via differences in infrastructure charges?*
  Table 10 shows the actual infrastructure charges currently in use in Hungary.

	Freight	*Passenger*	*differentiation basis*
Path allocation (euro/path)	25.20	10 to23.2	operativity-complexity of time-tabling
Train running (per trainkm)	0.8 to 2.35	0.26 to 2.32	service levels - gross tonnes
Overhead catenaries	0.52	0.52	gross tonnes
Passenger train stops (euro)		2.16 to 13	
Passenger train departure/destination		4.64 to 27.82	
Freight train start/interim/destination euro/train station usage	7.82 to 46.9		
Freight wagon service loading-unloading (euro)	1.24 to 7.46		

Table 10: Actual infrastructure charges in Hungary (Reorient Final Conference, 2007).

By applying these charges we observe that 20% of the traffic (800 freight trains/day) pays 33% of the infrastructure charges while 80% of the traffic (3200 passenger trains/day) pays 66% of the infrastructure charges. As such, the freight train infrastructure charge is twice as high as the passenger train infrastructure charge on a trainkm basis.

These figures do not necessarily hide a cross subsidy, as gross weight of trains is an important factor to determine the infrastructure charge. The gross weight is a measure for the wear and tear of the network. Furthermore, freight trains are in general heavier than passenger trains. Freight trains therefore pay higher infrastructure charges.

It seems unjustified to use the gross weight as the only main determinant for infrastructure charges, particularly if a share of the maintenance costs which are covered in this regime are not depending on its use. Such a big difference in infrastructure charges is not justified by the gross weight. Some form of cross subsidy via the infrastructure charges is thus still present, although it has significantly less importance than the earlier direct cross subsidies.

Subsidies for infrastructure

We still mention that the Hungarian infrastructure charges are based on nearly total cost (full cost) while EU regulation admits (cheaper) marginal cost pricing by means of a state subsidy. 85% of the infrastructure manager's costs are covered by the charges. The (small) remainder is covered by a government subsidy. The average Hungarian freight infrastructure charge is thus fairly high, i.e., 7.2 euro/tonnekm.

Czech Republic

State subsidies

The 2005 state subsidies amounted to 467 million euro, of which 262 million euro was a compensation for PSO and 205 million euro was an infrastructure subsidy. This latter subsidy was paid as the wage of the workers doing the infrastructure maintenance. The 467 million euro corresponds to 0.021 euro per traffic unit, as indicated in Figure 11.

Again, we can ask ourselves in how far this low level of subsidies is compensated either by direct or indirect cross subsidies, or both, as described in Section 1.

- *Compensation through direct cross subsidies?*
  Feight and passenger transport are still bundled in one company. The Ecorys report (Ecorys 2005) states that direct cross subsidies can not be excluded based on a study of the accounts. Sources from the Czech Railway company confirmed that direct cross subsidies are still current practice. Actually, negotiations are underway to separate cargo and passenger rail transport by January 1st, 2008. If this new organisation comes in place, direct cross-subsidies will no longer be possible. As mentioned earlier, the main barrier for this new organisation is a financial one.

- *Compensation through indirect cross subsidies via infrastructure charges?*
  Table 11 shows that passenger trains run more than 75% of all the trainkm, while they pay only 25% of the infrastructure charges. The average km infrastructure charge is 5 times higher for a freight train than for a passenger train, although they are still 30% lower than the Hungarian freight infrastructure charges.

	passengertrain	cargo train	subsidy	total IM
train km driven (1000km)	113157	32692		147634
infrastructure charge income (million EUR)	53	150	205	408
average tarif EUR/km	0.47	4.59		

Table 11: trainkm driven versus infrastructure charges paid by Czech passenger and cargo trains (Annual CD Report complemented with our own calculations).

The previously mentioned infrastructure charges are composed of an operation control part and an infrastructure wear and tear part (i.e., maintenance). They are both dependant on the gross weight and the journey length. They are also influenced by the engine type (internal combustion or electricity). Besides this, there is an upper bound to the infrastructure charge. This upper bound is significantly lower for passenger traffic compared to freight traffic. The low bound and the large difference in infrastructure charge per km between freight and passenger transport make the cross subsidy via the infrastructure charges obvious.

Losses

The state cross subsidies cannot avoid that the passenger transport activities loose money. The accounts show a loss of approximately 100 million euro in 2004. This shows clearly the under compensation for the PSO.

Subsidies for infrastructure

The infrastructure charge subsidies are relatively important. As stated above, the state pays the railway operator for the infrastructure maintenance. The railway operator have to pay infrastructure charges to the infrastructure manager. The state subsidy and the revenue from infrastructure charges account both for approximately 50% of the infrastructure manager's income.

2.3 Decrease in transport volumes

In Section 1, we mentioned the decreasing freight transport volumes as an indirect consequence of the under-compensation. It is however impossible to confirm this statement, as we do not have the methods to determine what had been the transport volumes without the under-compensation. To this end, Table 12 and Table 13 give illustrations of the evolution of transport volumes for freight transport by road and rail and for passenger transport by rail in Czech Republic and Hungary.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
freight rail						22.6	22.3	21.0	18.7	16.7	17.5	16.9	15.8	15.9	15.1	14.9
freight road						31.3	30.1	30.6	33.9	37.0	37.3	39.1	43.7	46.5	46.0	43.4
passenger	13.3	*12.5*	11.1	8.5	8.5	8.0	8.1	7.7	7.0	6.9	7.3	7.3	6.6	6.5	6.6	6.7

Table 12: Evolution of freight and passenger transport volumes by rail and freight volumes by road in the Czech Republic (1000 million tonnekm, 1000 million pkm) (Eurostat pocketbook).

	1970	1980	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
freight rail	19.8	24.4	16.8	11.9	10.0	7.7	7.7	8.4	7.6	8.1	8.2	8.5	8.8	7.7	7.8	7.6	8.7	9.1
freight road								*13.8*	*14.3*	*14.9*	18.7	18.6	19.1	18.5	17.9	18.2	20.6	25.2
passenger	16.4	13.5	11.4	9.9	9.2	8.4	8.5	8.4	8.6	8.7	8.9	9.5	9.7	10.0	10.5	10.3	10.2	9.9

Table 13: Evolution of freight and passenger transport volumes by rail and freight volumes by road in Hungary (1000 million tonnekm, 1000 million pkm) (Eurostat pocketbook, 2006).

The change in the political system in the early 1990s caused an important decrease in freight transport, accompanied by a slower and lighter decrease in passenger transport. In more recent years, passenger and freight transport volumes remained relatively stable, except for the freight transport volumes by rail in the Czech Republic which decreased. The modal share of rail freight transport decreased clearly in Hungary and the Czech Republic.

2.4 Rationalising networks

The previous Sections showed that the state contribution to the railway system in Hungary and the Czech Republic is low but stable. In this setting, under-compensation remains a general practice. We now investigate whether or not efforts or plans exist to reorganise the railways in order to reduce the financial needs of the railway sector and finally improve the financial situation of the rail way sector.

In Hungary, 14 regional lines have been closed down this year. Even more so, the intention had been to close down 26 lines or 12% of the Hungarian network. However, after strong protests from local municipalities, parliamentary opposition parties, and civil organisations, the close down was limited to 14 regional lines. After 2008, the railway company intends to continue on this path. It wants to close down all small regional railway lines in order to eliminate sources of reincurring unfinanced expenses (debts).

Also in Hungary, fare prices increased by 30% this year, in order to bring the train fare prices in line with the bus fares. It can of course also be seen as a means to reduce under-compensation and to improve the financial situation of the railways.

In contrast, no such drastic measures have been taken until now in the Czech Republic. The main effort of rationalising the railway system is the concentration of (European) investments in some corridors.

3. Conclusion

3.1 Bad financial situation of railways in NMS

- The financial situation of the railway sector in the NMS is bad, as debts are surpassing the capital of the sector. The main reasons for this can be traced back to on the one hand an under-compensation for Public Service Obligations (PSO), and on the other hand to a changing economic environment without an adequate restructuring of the railway organisation. A consequence of this are the direct and/or indirect cross subsidies from freight to passenger transport.

- The Hungarian and the Czech Republic cases provide evidence for these mechanisms of under-compensation and cross subsidisation. The mechanisms are nevertheless organised in a different way in each country: in Hungary the bulk of the public expenditure is for the PSO, while in the Czech Republic 50% goes to the infrastructure. Furthermore, the cross subsidies from freight to passenger transport are more obvious and more important in the Czech Republic than in Hungary.

- The Hungarian passenger railway company tries to improve its financial situation by reducing its network and increasing its tariffs. This is not easy due to political and public pressure. The coincidence of the dynamics of the Hungarian passenger railway transport company and its recently acquired independence is remarkable. Extra investigation is needed to determine whether there is a link between both events.

3.2 Action is necessary

Three action points are of primary importance in order to improve the financial situation of the NMS railways:

- Formulate a long term railway development plan. This plan will indicate what railway lines and service levels are necessary, what transport volume developments are expected and what the necessary state contribution is in order to obtain the expected service levels. The plan needs to be made based on the national needs, as opposed to being based on the availability of European subsidies.
- Suppress the old liabilities against the state in the railway accounts that have already been paid by the state.
- Grant management freedom to the railway sector and make it accountable for its performance. An accountable management will pursue increased efficiency and take necessary decisions. It will not accept under-compensation (note that the EU railway directive on the separation of accounts can help).

By implementing the actions above,

- Governments can decide on service levels and provide the corresponding PSO compensation,

- The necessary restructuring of the railway organisations can take place,
- Cross subsidies from freight to passenger transport will disappear,
- Freight transport companies can concentrate on the transport market niche in which they are competitive (i.e., the medium and long distance transport). They can also cooperate with other rail companies in order to simplify administrative rules in international transport.

EU railway directives, and especially those on the separation of accounts and on the PSO, can help to bring a framework into place that can improve the financial situation of the railways. It should be noted however that these EU directives are not a sufficient condition to improve the financial situation of NMS railways.

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Case Study "Reductions in road transport emission levels due to fleet renewal"

By:

TRANSPORT & MOBILITY LEUVEN

This case study investigates the effects of the introduction of European emission standards in the New Member States. It pays attention to the expected spectacular emission reductions in Poland and to the implementation of the European directive on emission standards. The implementation in NMS law went smoothly, but emission reductions come slower than expected. Massive Imports of less clean second hand cars was the reason. This phenomenon is looked at in Latvia.

1. Expectations and framework

1.1 Emission reduction from road transport in new members countries by 50% or more

From the early nineties, the EU set ambitious targets to reduce air pollution, to improve air quality and to reduce the premature deaths due to bad air quality. Life expectancy was expected to be reduced by up to 3 years in the year 2000 in several European regions like Belgium, The Netherlands, Northern Italy and some Central European places. This was only due to pollution with fine particulate matter (PM). The global European air quality policy should improve significantly air quality in spite of growing economic activity. The European air quality strategy concerns all economical sectors, therefore also road transport.

The EU translated its strategy to reduce emissions from road transport in directives concerning technical emission standards for new vehicles. These emission standards are set for carmanufacturers and concern mopeds, motorcycles, cars and heavy duty vehicles. Emissions form Nitrous Oxide (NOx), Particulate matter (PM), Carbon monoxide (CO) and volatile organic components (VOC) are regulated. PM causes respiratory and also cardio vascular health problems. Nox and VOC cause ozone pollution in summer. Ozone pollution causes also respiratory problems. The regulated emission values are given in the Annex. Expected emission reductions for new vehicles are already a factor 4 to 5 in 2005 compared to the first European emission standards (see Annex).

The rate of fleet renewal will determine the rate at which global emissions from road transport will decrease. The new emission standards apply only to new vehicles. The emission standards can therefore only generate their full effects once the whole fleet has been renewed. This takes several years. We therefore also study the future evolution of emissions of roadtransport.

As part of the accession process, all new member states have to comply with those European emission standards for road vehicles. As an example, we show the expected

results of the new emission standards for Poland based on results of the European TREMOVE model.

Evolution in emissions in Poland

The graph shows reductions in emissions of PM and NOx of 50%, of VOC and CO of over 90% in spite of a doubling of passenger road transport and a quadrupling of road transport of goods.

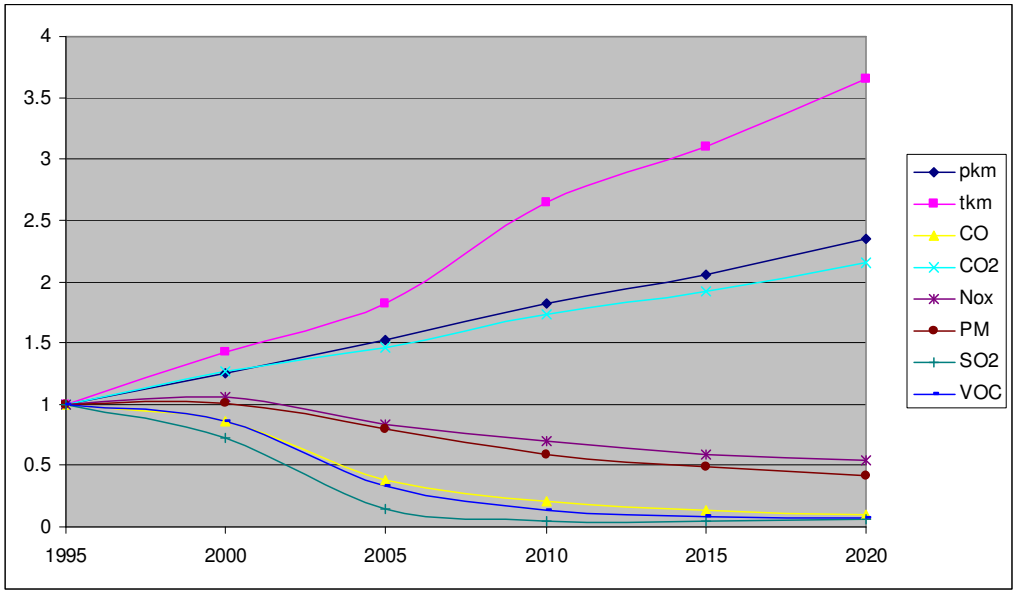

Figure 16: Evolution of emissions and transportvolumes from road transport in Poland (1995 = 1)

Average emission factors of the fleet in Poland

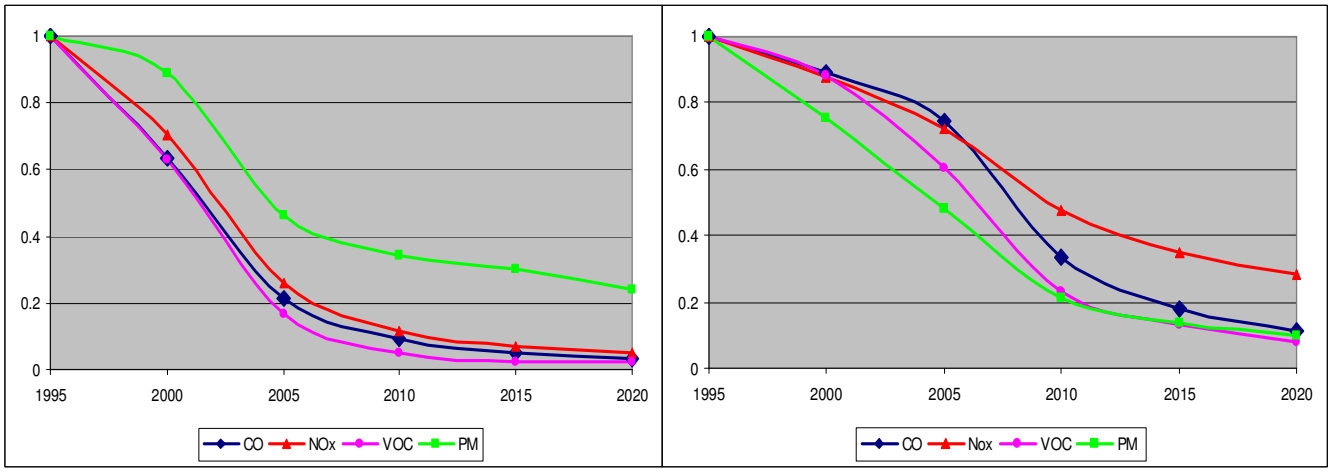

Figure 17: Improvement of emission factor (g/vkm) for passenger cars (left) and heavy duty vehicles (right) in Poland (1995 = 1; source: TREMOVE)

Due to emission regulation and fleet renewal, the average emission factor decreases. The weight of this decrease for passenger cars lies in the period 2000-2005, whereas for heavy duty vehicles this decrease seems not as dramatically as for passenger cars and seems to be progressing slower.

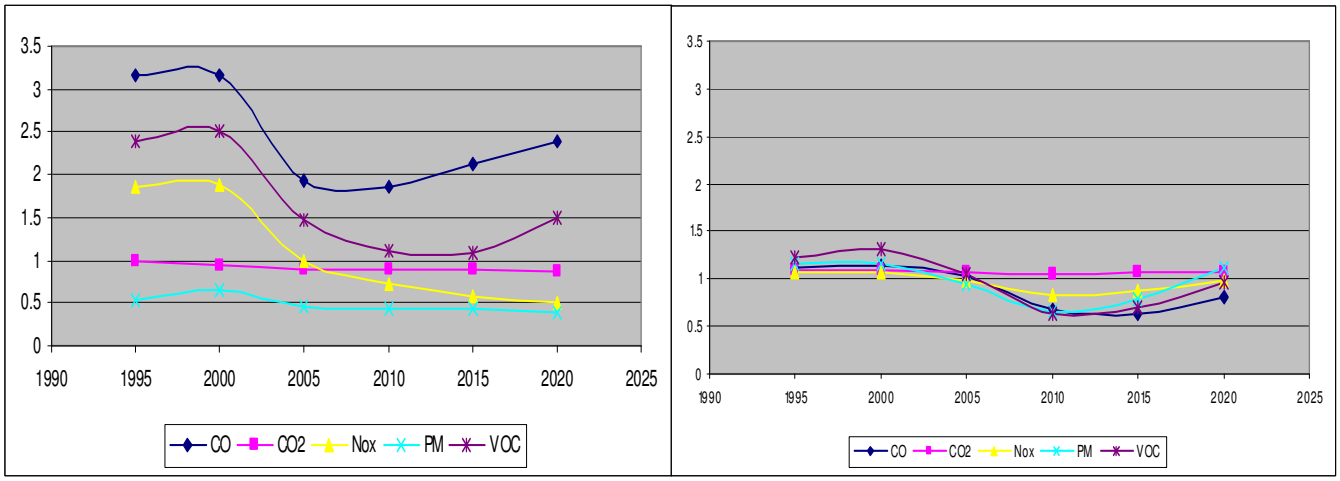

Figure 18: Emission factor Poland / emission factor Germany for passenger cars (left) and heavy duty vehicles (right) (source: TREMOVE)

Figure 3 shows the difference between the Polish average emission factor vs. German average emission factor. E.g. in 1995 the overall emission factor for passenger cars for CO was a factor 3 higher than in Germany. As legislation and fleet renewal also take place in Germany, the emission factor in Germany also decreases. Still, Polish passenger cars seem to make a huge leap forward compared to Germany in the 2000-2005 period, resulting in a better overall emission factor for NOx which surpasses the NOx emission factor of Germany from 2005 onwards. Some distinct differences in vehicle fleet can explain differences between the two countries. Poland has relative to Germany a larger share of gasoline cars and a larger share of small cars. The larger gasoline share explains the higher emission factor for CO and VOC and the lower emission factor for NOx and PM. For heavy duty vehicles, the change is not as clear as for passenger cars, still there seems to be an improvement mainly in the 2005-2010 period.

Entrance in the fleet of new EURO standards in Poland

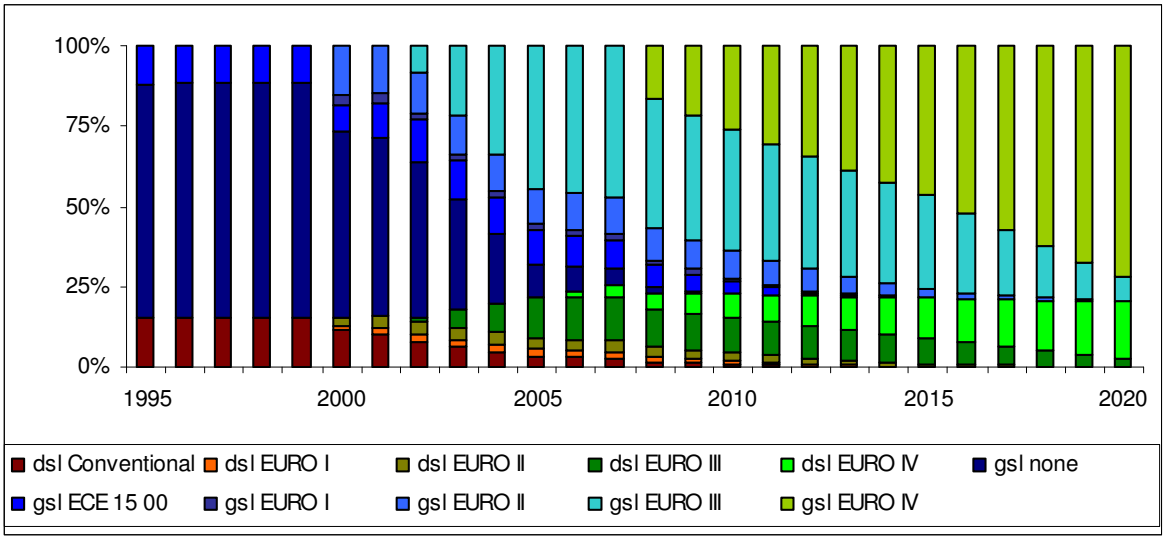

Figure 19: Fleet renewal in Poland, evolution of vehicle stock of passenger cars (source: TREMOVE)

The introduction of new legislation in Poland happened in about the same period as the introduction in other EU-countries. This is: around 1995 for EURO I petrol and around

2000 for EURO I diesel. When looking at the TREMOVE base case it is clear that the big changes in vehicle fleet composition, concerning emission standards take place in the period 2003 to 2008. Since the TREMOVE model is made for simulations, it is possible to look at the future vehicle fleet of Poland. From approximately 2010 on almost all vehicles comply to at least EURO I

1.2 Increase of the fleet renewal rate of trucks and acceleration of the introduction of cleaner trucks thanks to tighter road worthiness tests.

The transport acquis imposed also safety and technical requirements. Tests on road worthiness were stricter than before. A lot of trucks needed to be scrapped or overhauled or refurbished. For Poland for example, the estimations were that 13% of the fleet should be scrapped. Other trucks needed to be overhauled or refurbished. For Poland this was estimated at 20 % of the fleet.

This caused an acceleration in the fleet renewal and as a consequence a decrease in emissions from trucks.

1.3 Increase of the pace of adoption of the emission standard directives

It is very probable that emission standards have been adopted in the new member states even without accession. Also the new industrialized countries like China and India adopt actually European or American emission standards some years after their adoption in Europe or the United States.

In the new member states the same phenomenon was observed in the nineties. The new member states adopted already in the nineties European emission standards some years after the standards had been introduced in EU-15. The table shows the different introduction dates for the Euro standards for the new passenger cars in Poland, Czech Republic and Hungary. Those countries were never lagging far behind the EU-15 introduction dates. For the introduction of the EURO I standard, the lag was between three and five years, for the EURO III, the lag was only one or two years. The EURO IV standard was introduced at the same time in the actual new member states and the EU-15.

	EURO I	EURO II	EURO III	EURO IV
EU	1/07/1992	1-011996	1/01/2000	1/01/2005
CZ	1/01/1995	1/01/1999	1/01/2000	1/01/2005
HU	1/01/1997	19/09/1998	1/01/2002	1/01/2005
PL	30/12/1995	7/12/1996	1/01/2001	1/01/2005

Table 14: Introduction dates of EU standards for passenger cars

2. Smooth implementation of the emission standard directives

Little information is available on the implementation process of the legislation. Since it appears that most accession countries applied the emission standards approximately at the same time as the other EU-countries, it seems that resistance against it was limited. As mentioned earlier, it is most likely that in a non-accession scenario emission standards or other environmental law concerning road transport emissions were bound to come into force anyway.

Possible problems emerging due to the implementation of enforcement mechanisms for this extra legislation have not been reported either. Enforcement of this legislation is relatively easy by an emission test, when purchased or when a new vehicle comes on the market.

Communication with experts from the new member states indicates that indeed very few problems have been encountered.

We assume three reasons for the smooth introduction of this legislation:

- The very marginal price increase of vehicles (see further) due to the learning that has occurred at the manufacturers in Western Europe. Also, the lobbying exercise of different stakeholders was already done earlier when the emission standards were introduced in Western Europe.
- The huge improvement in air quality. The benefits of the emission standards are clearly visible in Western Europe.
- The positive perception of environmental EU legislation in NMS

There was however an important side effect that delayed considerably the effects of the European emission standards; the import of second hand cars from EU-15. This side effect is further explained in one of the next sections.

3. Fleet renewal effects and registration of new cars

Assessing the actual impacts concerning emissions is difficult. Emissions are never measured directly and fleet renewal is only a gradual process. Therefore we focus on a very closely related item here, the registration of new cars. The renewal of the fleet is a condition to get better air quality.

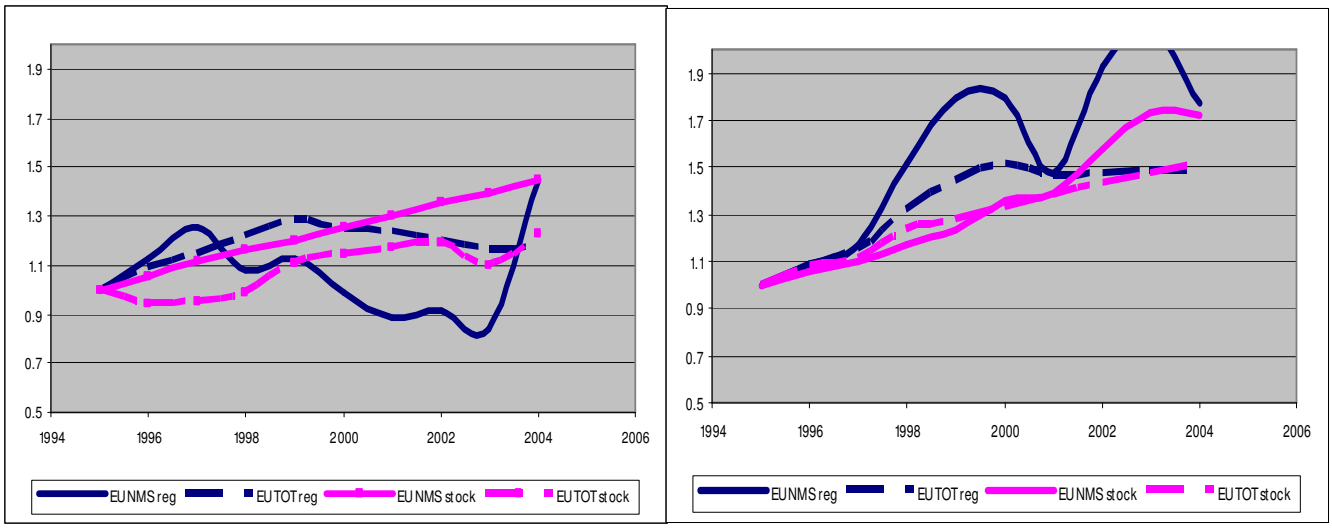

Figure 20: New registered and vehicle stock for passenger cars (left) and heavy duty vehicles (right) in new member states vs. total EU (1995 = 1; source: Eurostat)

Registration of new passenger cars is lower in the 10 NMS than for EU as a whole, but increases dramatically in 2004. It is difficult to say with this limited time series if this is an outliner or the start of a trend. The sudden increase of registration may also be related to enlargement, since the related increase of GDP, increases car ownership. This effect actually accelerates fleet renewal.

From the graph another interesting fact becomes clear, namely, while new registration declines, vehicle stock for passenger cars increases. Apparently this new registration should be considered an addition rather then a replacement of vehicle stock. This does not necessary mean that emissions finally increase as older cars drive significantly less than new cars.

For heavy duty vehicles a very different trend is visible. Registration of new heavy duty vehicles is higher in NMS then EU as a whole and is also significantly higher then registration of new passenger cars. Since registration increases faster than the vehicle stock, this could be an indication that the new registered heavy duty vehicles can be considered as a replacement of older vehicles, rather then an addition to the existing fleet as is the case for passenger cars. This seems to confirm the fact that stricter road worthiness tests caused scrappage and replacement of older trucks.

4. The effect of second hand cars import on road emission: the Latvian case

As described in the first section, an important reduction in emissions form road traffic was expected thanks to the introduction of emission standards. Furthermore, the implementation of the European emission standards went smoothly. Nevertheless, emission reductions take place at a much slower pace than expected. The reason is the massive import of second hand cars from EU-15. These second hand cars are older, comply with a less recent EURO standard and are therefore more polluting than new cars. The model results described in section 2 count every new registered car as a new purchased car and thus complying with the newest emission standard, at that time not taking into account this effect of imported second hand cars. This means that the age of

the vehicle fleet is underestimated and consequently the overall emission factors are too optimistic in TREMOVE.

This is not a direct consequence of accession but a consequence of opening borders and differences in living standards between countries. Several countries (e.g. Hungary) reacted to this with a supplementary legislation to restrict the registration of second hand cars and/or with tax registrations.

These instruments to restrict the registration of second hand cars have often been poorly designed and so have been considered incompatible with EU single market legislation. One of the effects of the increased supply of old vehicles has been the reduced demand for new clean vehicles in the NMS.

The section below describes the situation in Latvia concerning the import of second hand cars and the delay in emission reductions.

As can be seen in the figures, in the pre-accession era a lot of the first registered cars were second hand cars, with over 70% older then 10 years. The reason for this is unclear, but could be related to the fall of the Berlin Wall, opening the market for foreign goods, including older Western cars.

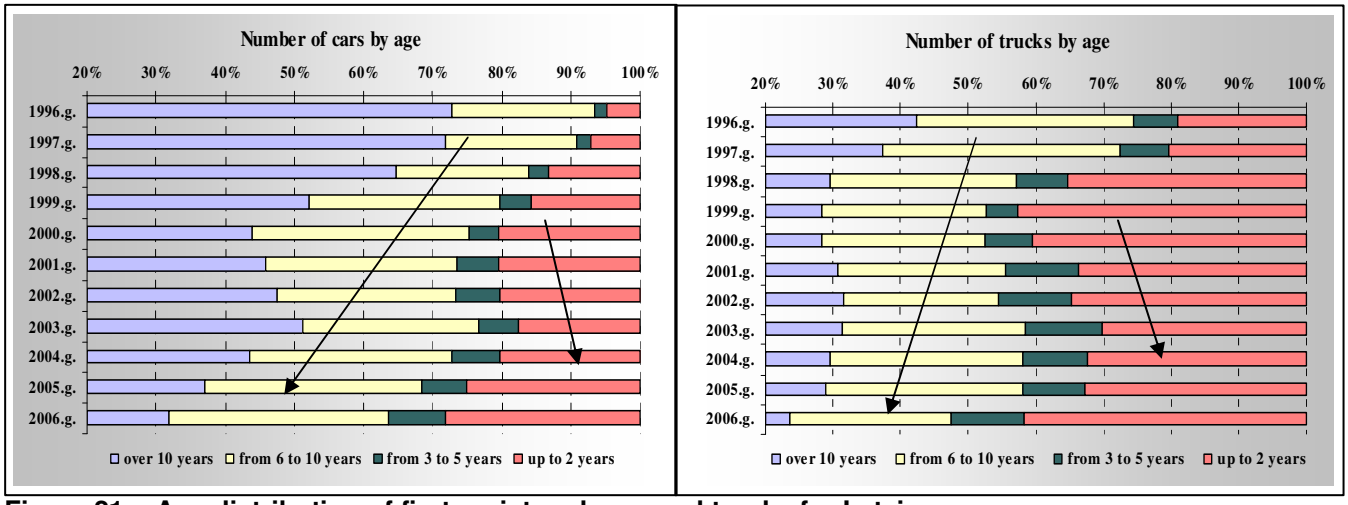

Figure 21: Age distribution of first registered cars and trucks for Latvia

In general, there seems to be a trend towards registration of younger vehicles in time, probably due to increase in buying power. In the years of the accession period (2001-2004), there is a small reversed trend, when older vehicles are registered. This may be the effect of further opening borders and consequence import of older Western European cars. Similar trends can be seen for trucks, with a longer period of reversed trend.

The Latvian government responded to this by **depending the vehicle tax of imported cars on vehicle age,** starting with vehicles over 7 years old. The exact date of implementation of this measure is not known, but it can be seen in the graph that starting from 2004, registration of over 10 years old cars decreased significantly while the share of 6 to 10 years old vehicle remained more or less unchanged.

Although the age of first registered vehicles is declining, the vehicle fleet has been aging, peaking in the period of accession. Once again, the reason for the aging fleet before accession is unclear, but can be related to the collapse of the East block, and consequently opening the market for foreign goods and the difference in living standards between West and East.

From 2004 onwards, the vehicle age is declining. Probably due to increase in buying power, new cars, or younger second hand cars, are bought. Also, the effect of increased vehicle tax for older vehicles, introduced by the government to reduce import of old cars, may have effect.

Still, when Latvian vehicle stock is compared to the German stock, the Latvian stock is clearly much older. Latvia has a long way to go, before it can to catch up with Western Europe in matters of age of vehicle stock.

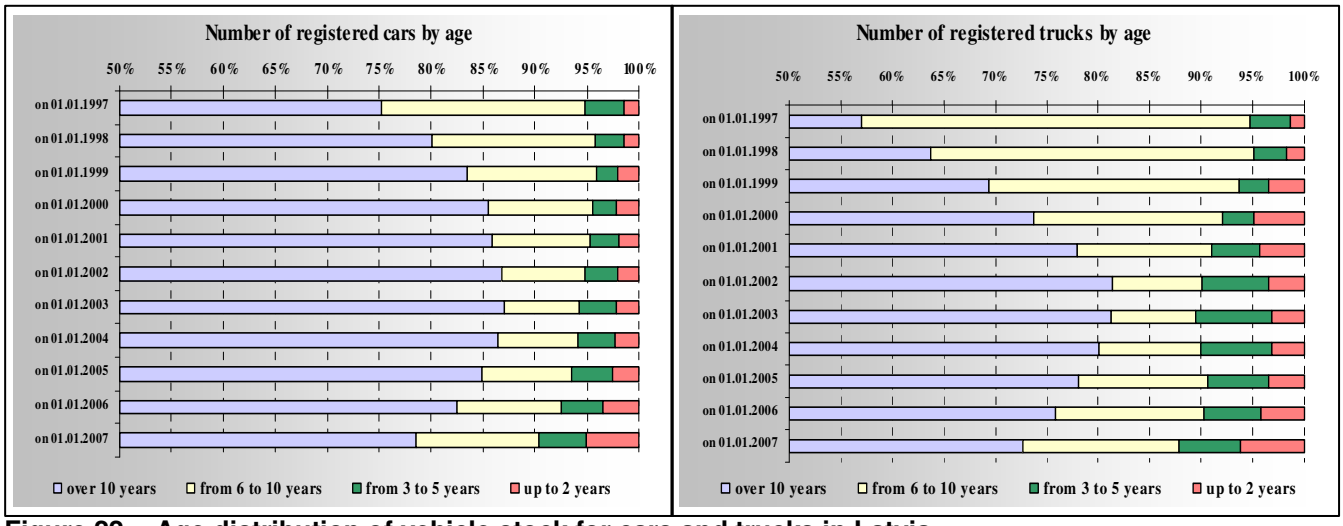

Figure 22: Age distribution of vehicle stock for cars and trucks in Latvia

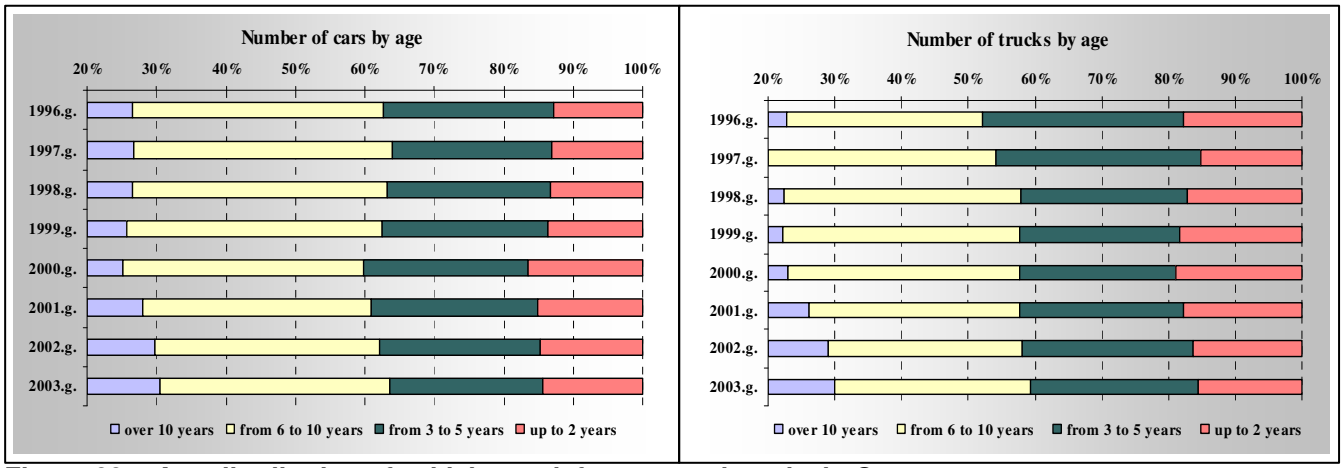

Figure 23: Age distribution of vehicle stock for cars and trucks in Germany

In the table below the age distribution of the **truck fleet** that holds a license for international operations is given. As can be expected, the international fleet is much younger then the domestic, yet holds only a small share of the entire fleet (<10%)

	INT	NAT	ALL
over 10 years	23.3%	77.6%	72.7%
from 6 to 10 years	28.2%	13.8%	15.1%
from 3 to 5 years	25.8%	4.1%	6.0%
up to 2 years	22.7%	4.6%	6.2%

Table 15: Age distribution of national and international truck fleet in Latvia, 2006

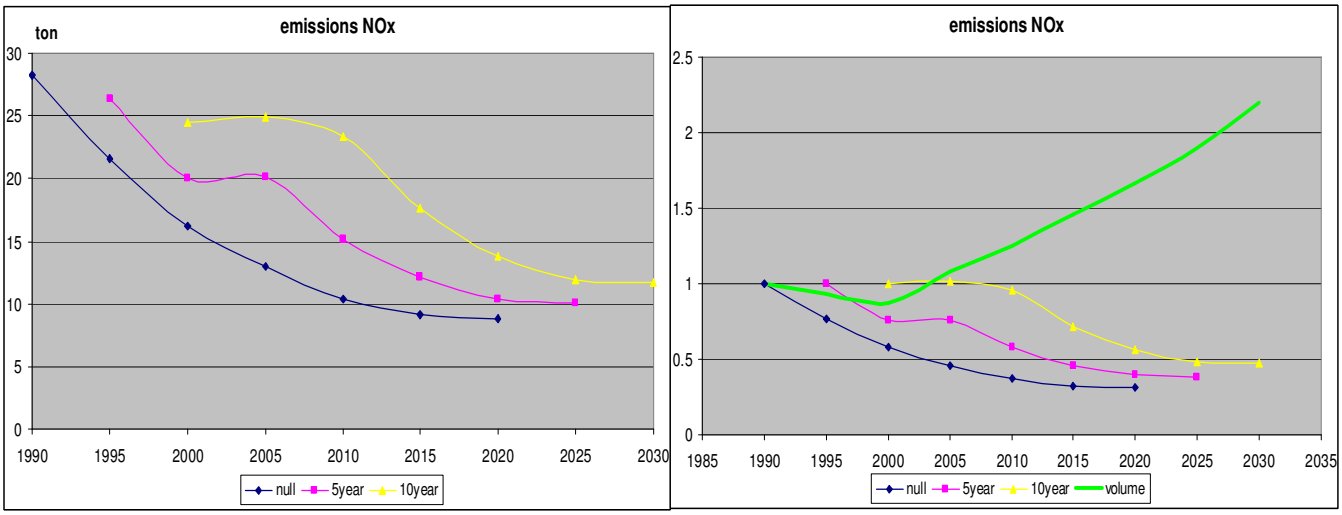

Figure 24: Emissions of NOx by private cars in Latvia for assumed vehicle stock age and traffic volume in vehicle kilometers. Absolute (left) and relative (right)

In the above figure you can see the effect of an older vehicle stock combined with the increase of transport volume. Taking into account the effect of second hand cars, which ages the vehicle stock, we estimated what would be the effect of a 5 year and 10 year older fleet on emissions, knowing that traffic volume strongly increases from 2005 onwards. As expected, in the period 2000-2005, in both 5 year and 10 year assumption, there is stagnation or even a small increase of emissions. We do not take into account here the loss in efficiency of the catalysts of the cars over time.

Overall, it seems that two separate incidents played a role. First, the collapse of the Iron Curtain allowed the import of old Western European cars. Second, the accession caused a more open market, which emphasized this effect for a period of several years. This means that, in this case, Latvia has a vehicle stock which is at least 5 years older then most West-European countries. With traffic increasing and with this old vehicle stock, there may first be an increase, instead of an immediate decrease of emissions from road transport, due to the import of second hand cars.

5. Other effects linked to enlargement

5.1 Carbon dioxide emissions will decrease, also with a delay compared to EU-15

The accession had as a consequence that also the ACEA agreement had to be respected for the NMS. The ACEA agreement is a voluntary agreement between the EC and the (European) car manufacturers to reach an average emission of 140 gr/km for new passenger cars in 2010. This means nearly 20% increase in fuel efficiency over the last 10 years for the EU as a whole.

5.2 Negative side effects of accession with respect to fleet renewal

We mention below some negative side-effects with respect to enlargement and emissions of road transport. There is not necessary a link with the introduction of emission standards but they seem worth mentioning.

Increased share of diesel cars in new registrations

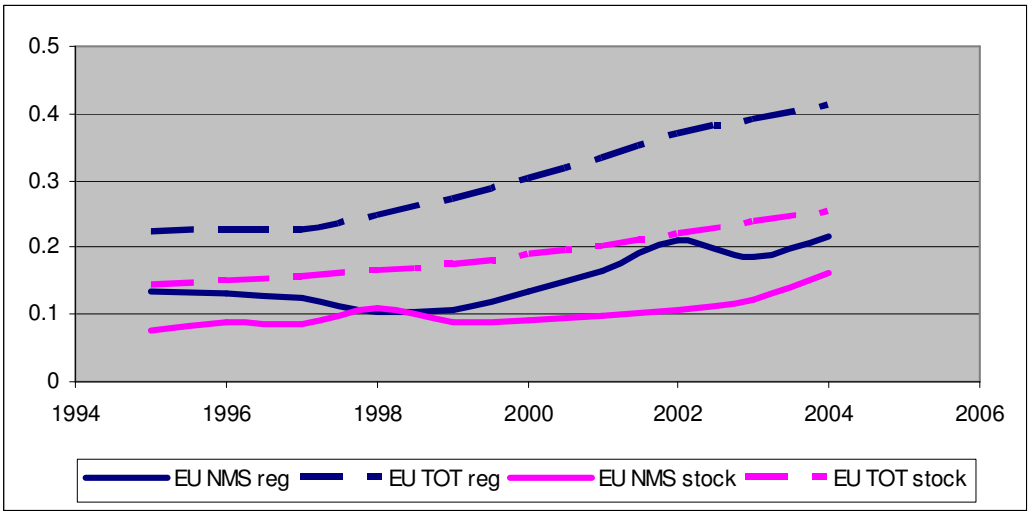

Figure 10: Diesel share of new registered and vehicle stock for passenger cars in new member states vs. Total EU

As registrations of diesel passenger cars increases at around 2000, vehicle stock share of diesel increases. Although the share of diesel cars in the EU as a whole is still higher (and also still increasing), the NMS are starting to catch up. This increased diesel share may be a problem when looking at urban air quality as diesel cars emit higher amounts of PM and NOx compared to gasoline cars. Nevertheless, once future EURO standards 5 and 6 come into force in 2009 and 2014 emissions of new diesel and gasoline cars will be nearly similar.

Increased traffic volumes and congestion

Although this is also the case for the EU as a whole, it may well be that traffic volume in the 10 NMS increases faster, as GDP increases. Related to this, congestion could increase which will worsen the environmental performance as the emission factor in congested condition is far worse then in free flow condition.

Equity effects due to more expensive cars?

One could expect that cleaner cars are more expensive. Car ownership could then become more difficult for poorer households. In reality, we see that cleaner cars are only marginally more expensive due to environmental measures.

6. General evaluation

6.1 Negligible extra cost of EURO standard directive

Cleaner cars are equipped with e.g. catalytic converters which, off course, results in an extra purchase cost. This extra cost is however very small thanks to learning and scale

effects. This is a general phenomenon for the introduction of new technologies. The following figures illustrate this: Costs for catalytic converters were expected to be around 500 dollar in 1991 before introducing the catalytic converters. In 2001 they were expected to be around 50 EURO.

6.2 Transposition of standards in NMS law went smoothly

The implementation of the emission standards in the NMS can be considered a success. Resistance against the measure has been limited and enforcing the new legislation was easy. The effect on environmental performances has obviously been, and still is, very positive (as it has been for the EU as a whole). Some temporary problems concerning massive imports of second hand cars have been observed.

Enlargement itself can be granted some credit for these positive evolutions. The relatively easy introduction of emission standards can at least partly be related to the earlier introduction of the same legislation in EU-15.

All main manufacturers already adapted their cars to the new environmental standards, no supplementary investments were necessary.

All kinds of stakeholders already had their say on the new standards, so resistance in NMS was minimal.

These effects allowed the NMS to make a big leap forward in environmental law and air quality in a short period of time, which otherwise could have taken many years.

6.3 Emission reductions are delayed due to second hand cars imports

Some nuances are necessary with this positive evaluation of the measure due to the second hand cars effects. The emission reduction was delayed by 5 to 10 year due to the massive import of second hand EU15-cars. Countries tried to limit the import of second hand cars by imposing extra taxes for those cars. The environmental goal (impose extra taxes on older imported cars) was not always compatible with the free movement of goods (free trade of second hand cars).

It is difficult to avoid this phenomenon of imports of second hand cars, since the main cause is the lower purchase power in the NMS. The ad hoc legislation, like increased vehicle tax for older vehicles, developed by some NMS had certainly an effect and did not cost money to the governments. Other measures like scrappage subsidies (in combination with free movement of goods) could have the disadvantage that people import cars and scrap the vehicle afterwards to get the premium. Such a measure also has an impact on the NMS budgets.

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- Ondrej Fabrera DHV – (Czech transport research institute)
- Inara Petersone (Latvia)

8. ANNEX: Emission standards for passenger cars (PC) and light duty vehicles

PC	***(g/km)***	**Date**	**CO**	**HC**	**HC+NOx**	**NOx**	**PM**
Diesel	**Euro 1**	1992.07	2.72	-	0.97	-	0.14
	Euro 2	1996.01	1	-	0.7	-	0.08
	Euro 3	2000.01	0.64	-	0.56	0.5	0.05
	Euro 4	2005.01	0.5	-	0.3	0.25	0.025
	Euro 5	2009.09	0.5	-	0.23	0.18	0.005
	Euro 6	2014.09	0.5	-	0.17	0.08	0.005
Petrol	**Euro 1**	1992.07	2.72	-	0.97	-	-
	Euro 2	1996.01	2.2	-	0.5	-	-
	Euro 3	2000.01	2.3	0.2	-	0.15	-
	Euro 4	2005.01	1	0.1	-	0.08	-
	Euro 5	2009.09	1	0.1	-	0.06	0.005
	Euro 6	2014.09	1	0.1	-	0.06	0.005

LDV	***(g/km)***	**Date**	**CO**	**HC**	**HC+NOx**	**NOx**	**PM**
Diesel							
N1, Class I <1305 kg							
	Euro 1	1994.10	2.72	-	0.97	-	0.14
	Euro 2	1998.01	1	-	0.7	-	0.08
	Euro 3	2000.01	0.64	-	0.56	0.5	0.05
	Euro 4	2005.01	0.5	-	0.3	0.25	0.025
	Euro 5	2010.09	0.5	-	0.23	0.18	0.005
	Euro 6	2015.09	0.5	-	0.17	0.08	0.005
N1, Class II 1305-1760 kg							
	Euro 1	1994.10	5.17	-	1.4	-	0.19
	Euro 2	1998.01	1.25	-	1	-	0.12
	Euro 3	2001.01	0.8	-	0.72	0.65	0.07
	Euro 4	2006.01	0.63	-	0.39	0.33	0.04
	Euro 5	2010.09	0.63	-	0.295	0.235	0.005
	Euro 6	2015.09	0.63	-	0.195	0.105	0.005
N1, Class III >1760 kg							
	Euro 1	1994.10	6.9	-	1.7	-	0.25
	Euro 2	1998.01	1.5	-	1.2	-	0.17
	Euro 3	2001.01	0.95	-	0.86	0.78	0.1
	Euro 4	2006.01	0.74	-	0.46	0.39	0.06
	Euro 5	2010.09	0.74	-	0.35	0.28	0.005
	Euro 6	2015.09	0.74	-	0.215	0.125	0.005
Petrol							
N1, Class I <1305 kg							
	Euro 1	1994.10	2.72	-	0.97	-	-
	Euro 2	1998.01	2.2	-	0.5	-	-
	Euro 3	2000.01	2.3	0.2	-	0.15	-
	Euro 4	2005.01	1	0.1	-	0.08	-
	Euro 5	2010.09	1	0.1	-	0.06	0.005
	Euro 6	2015.09	1	0.1	-	0.06	0.005
N1, Class II 1305-1760 kg							
	Euro 1	1994.10	5.17	-	1.4	-	-
	Euro 2	1998.01	4	-	0.65	-	-
	Euro 3	2001.01	4.17	0.25	-	0.18	-
	Euro 4	2006.01	1.81	0.13	-	0.1	-
	Euro 5	2010.09	1.81	0.13	-	0.075	0.005
	Euro 6	2015.09	1.81	0.13	-	0.075	0.005
N1, Class III >1760 kg							
	Euro 1	1994.10	6.9	-	1.7	-	-
	Euro 2	1998.01	5	-	0.8	-	-
	Euro 3	2001.01	5.22	0.29	-	0.21	-
	Euro 4	2006.01	2.27	0.16	-	0.11	-
	Euro 5	2010.09	2.27	0.16	-	0.082	0.005
	Euro 6	2015.09	2.27	0.16	-	0.082	0.005