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# ***IMPACT ASSESSMENT***

***Accompanying document to the***

Proposal for a

**DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**establishing a single European railway area**

**(Recast)**

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**GLOSSARY**

| Term | Explanation |
|---|---|
| Infrastructure manager (IM) | Any body or undertaking that is responsible in particular for establishing and maintaining railway infrastructure |
| Network Statement | The statement which sets out in detail the general rules, deadlines, procedures and criteria concerning the charging and capacity allocation schemes. |
| License | An authorisation issued by a Member State to an undertaking, by which its capacity as railway undertaking is recognised. That capacity may be limited to the provision of specific types of services. |
| Performance Regime / Performance Scheme | Part of the infrastructure charging scheme which is aimed at encouraging railway undertakings and infrastructure managers to minimise disruption and improve the performance of the railway network. It may include penalties for actions which disrupt the operation of the network, compensation for undertakings which suffer from disruption and bonuses that reward better than planned performance. |
| Rail related service | Services defined in Annex II of Directive 2001/14/EC[1] including supply equipment for traction current and fuel, services at passenger stations and freight terminals, marshalling yards, storage sidings and |
| Railway undertaking (RU) | Any public or private undertaking, the activity of which is to provide transport of goods and/or passengers by rail |
| Regulatory Body (RB) | A body established by Member States responsible for monitoring competition in the railway market and to which an applicant has the right to appeal in cases where it believes it has been unfairly treated, discriminated against or is any other way aggrieved, in particular against decisions adopted by an infrastructure manager or where appropriate a railway undertaking. |
| Safety Certificate | A certificate which provides evidence that a railway undertaking has established its safety management system and can meet requirements laid down in technical specifications for interoperability and other relevant Community legislation and in national safety rules in order to control risks and operate safely on the network. |
| Wagon owner / Wagon keeper | Any body or undertaking other than a railway undertaking that is technically or financially responsible for wagons and exploit them economically as a means of transport. |

[1] 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 (Official Journal of the European Union L 75, 15.3.2001, p.29).

**ACRONYMS**

| Acronym | Description |
|---|---|
| $CO_2$ | Carbon dioxide |
| dB | Decibel (unit for noise measurements, see glossary) |
| ERTMS | European Rail Traffic Management System |
| EU | European Union |
| HHI | Herfindahl-Hirschman Index |
| IM | Infrastructure Manager |
| ISSG | Internal-Service Steering Group |
| MS | Member State |
| $NO_x$ | Nitrogen oxides |
| PM | Particulate matter |
| PWC | PriceWaterhouseCoopers Advisory |
| RB | Regulatory Body |
| RU | Railway Undertaking |
| TSI | Technical Specifications for Interoperability |
| tkm | Tonnes x kilometre |
| UIC | Union internationale des chemins de fer (International Union of Railways) |

## 1. PROCEDURAL ISSUES AND CONSULTATION OF INTERESTED PARTIES

### 1.1. Legal background

A legislative initiative to recast the **first railway package** is foreseen in the Commission's 2009 Work Programme. The first railway package consists of three directives:

– **Directive 2001/12/EC** of the European Parliament and of the Council of 26 February 2001[2], which amended pre-existing Council Directive of 29 July 1991 on the development of the Community's railways[3];

– **Directive 2001/13/EC** of the European Parliament and of the Council of 26 February 2001[4], which amended pre-existing Council Directive of 27 June 1995 on the licensing of railway undertakings[5]; and

– **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[6].

The following fundamental principles form the basis of the **first package**:

– **Infrastructure access rights**, including access rights to the necessary services, should be granted on a fair and non-discriminatory basis

– **Network statements,** which describe the network and all the information needed by anyone wishing to run services on the network, should be developed and published by IMs.

– **Management independence** is essential and IMs should be fully responsible for their own management.

– **Account separation** must be maintained for activities relating to the supply of transport services and activities relating to railway infrastructure management. Cross-subsidisation between activities must also be avoided.

– **Separation between the essential functions** of capacity allocation, charging, licensing and the monitoring of public service obligations as regards transport activities.

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2 Official Journal of the European Union (OJ) L 75, 15.3.2001, p.1, as amended by Directive 2004/51/EC of the European Parliament and of the Council of 29 April 2004 (OJ L 220, 21.6.2004, p.58), Council Directive 2006/103/EC of 20 November 2006 (OJ L 363, 20.12.2006, p.344), Directive 2007/58/EC of the European Parliament and of the Council of 23 October 2007 (OJ L 315, 3.12.2007, p.44) and by the Act concerning the conditions of accession of the Czech Republic, the Republic of Estonia, the Republic of Cyprus, the Republic of Latvia, the Republic of Lithuania, the Republic of Hungary, the Republic of Malta, the Republic of Poland, the Republic of Slovenia and the Slovak Republic and the adjustments to the Treaties on which the European Union is founded (OJ L 236, 23.9.2003, p.33).

3 Council Directive 91/440/EEC (OJ L 237, 24.8.1991, p.25).

4 OJ L 75, 15.3.2001, p.26, as amended by Directive 2004/49/EC of the European Parliament and of the Council of 29 April 2004 (OJ L 220, 21.6.2004, p.16).

5 Council Directive 95/18/EC (OJ L 143, 27.6.1995, p.70).

6 OJ L 75, 15.3.2001, p.29, as amended by Commission Decision 2002/844/EC of 23 October 2002 (OJ L 289, 26.10.2002, p.30), Directive 2004/49/EC of the European Parliament and of the Council of 29 April 2004 (OJ L 220, 21.6.2004, p.16) and Directive 2007/58/EC of the European Parliament and of the Council of 23 October 2007 (OJ L 315, 3.12.2007, p.44).

– **Conditions for the granting of licences** to RUs must be harmonised throughout the Community.

– **Charging systems** should be based on the marginal cost principle with increases being possible only under certain circumstances.

– **Path allocation** should be based on common principles including ones related to scheduling, initial capacity and the coordination needed when capacity requests conflict with each other.

– An **independent regulatory body** should monitor the railway market and act as an agency to settle disputes between IMs and RUs in each MS.

The fundamental principles of the legislation were maintained during modifications introduced by the second and third railway packages and the Commission still considers them to be essential for the functioning of the internal market. The new measures proposed in the context of this recast would not alter these principles in any way.

The scope of the recast remains limited and primarily involves modifications which simplify and clarify existing provisions. Only few new measures detailed in Section 4 would introduce elements of modernisation, fully consistent with the existing legislation's underlying principles. The measures proposed would ensure that the existing principles are properly implemented and improve the functioning of the rail markets already opened to competition. They do not extend the scope of market opening (e.g. to domestic passenger traffic).

### 1.2. Impact assessment process

The present impact assessment takes into account the results of a number of earlier studies and analyses and recent Commission initiatives which are set out in Annex I.

This report provides a qualitative impact assessment on 5 of 26 modifications included in a package aimed at simplifying, clarifying and modernising rail access legislation (see Section 5). The five measures that are analysed modernise existing provisions in the legislation. Of the other modifications in the package, 17 clarify existing provisions and 4 measures modernise existing provisions and have already been subject to prior impact assessments.

The report also contains a quantitative assessment of economic, social and environmental impacts and administrative costs carried out on the whole package of modifications retained (see Section 6).

This impact assessment process began in early 2008 with the launch of a study to evaluate the potential impacts of a number of proposed modifications and delivery mechanisms. The process was guided by an Internal-Service Steering Group (ISSG), chaired by DG TREN and with members from DGs COMP, ECFIN, EMPL, ENTR, ENV, MARKT, SANCO, the Secretariat General and the Legal Service. The ISSG met regularly in 2008 and 2009 and individual DG's submitted written comments during the drafting of the impact assessment.

### 1.3. Consultation and expertise

#### *1.3.1. External Expertise*

A request for services for a study on the possible impacts of a recast the first railway package were submitted to PriceWaterhouseCoopers Advisory (PWC) in the context of DG TREN's Framework Contract TREN/A2/143-2007 regarding Impact Assessment and Evaluations

(reference TREN-08-ST-SI2.502764). A contract with PWC was signed on 24 June 2008, following which Commission services held a number of steering meetings with the contractor, who delivered intermediate reports and a final report as planned[7].

*1.3.2. Stakeholders' Consultation*

A stakeholders' consultation was carried out in the context of this impact assessment by PWC. Stakeholders were asked to highlight specific barriers that, from their point of view, hinder the full opening of the international rail market and the development of rail related services. In addition, stakeholders were invited to identify aspects of the EU legislative framework which need improvement.

Initially, almost 380 stakeholders from EU-25 (EU-27 excluding Cyprus and Malta which have no railway) were identified as being involved and potentially affected by the modifications being assessed. These stakeholders can be categorised in five groups: public authorities (rail regulatory bodies, competition authorities and ministries of transport), infrastructure managers, railway undertakings (including incumbents and newcomers) providers of rail related services (including terminal operators and maintenance workshop operators) and other stakeholders (railway manufacturers, wagon keeper and rail car leasing companies, , customer and rail passenger organisations, railway workers' organisations).

The consultation process included a questionnaire, workshop and telephone interviews. The identification of the problems, the definition of the objectives and of the measures described below is based on this process. Details about the public consultation as well as an overview of the results are included in Annex II. The comprehensive consultation process described above meets the Commission's minimum standards for public consultation.

While different stakeholders set different priorities, there was a broad consensus on the issues to be addressed. Some incumbent railway undertakings (specifically the ones with an integrated structure) expressed concerns at the alleged additional administrative burden that certain new measurescould generate. This criticism is addressed more extensively further on in the impact assessment. These stakeholders objected in particular to reinforcing the rules on access to rail-related services considering that they amounted to over-regulation. . In reality, these amendments are meant to make sure that market conditions stay open and fair even when certain operators enjoy a dominant position on the market. On the other hand, independent infrastructure managers and new entrant rail undertakings as well as the manufacturing industry supported those same changes because their expectation is to reach at last a level playing field with integrated companies and incumbent operators.

## 1.4. Recommendations of the Impact Assessment Board

*1.4.1. Initial submission of the Report*

Following submission of a draft report to the Impact Assessment Board (IAB) in June 2009, a hearing with the IAB took place on 1 July 2009. In its opinion the IAB requested a resubmission of the draft report with a number of improvements.

The IAB requested improvements related to clarifying the nature and magnitude of the underlying problems being tackled by the recast, an explanation of the type of modifications

[7] PriceWaterhouseCoopersAdvisory: Impact Assessment study on amendments to the rail access legislation in the framework of the recast of the 1st railway package. Final report will be posted online at: http://ec.europa.eu/transport/rail/studies/index_en.htm .

within the package, and most significantly, an analysis of alternatives for all new measures not covered by previous impact assessments. A revised version of the report has taken into account these and other requested improvements in the following manner:

1.4.1.1. Provide more clarity on the nature and magnitude of the underlying problems and the scope of the initiative.

The presentation of problems has been revised and in the case of new substantive issues, examples have been incorporated to highlight the nature and magnitude of the underlying problems. The link between problems, objectives and modifications has been clarified and is illustrated by a diagram in Section 4 and a detailed matrix in Annex III.

1.4.1.2. Better justify the new measures by comparing them with possible alternatives.

A distinction has been made between (i) modifications in the package which clarify existing provisions, (ii) measures which are new but have already been decided in another context and have been subject to an impact assessment and (iii) five new measures for which no impact assessment existed yet. This impact assessment report now includes a comprehensive impact analysis for options under each of the five measures and, for each, justifies the options included in the package.

1.4.1.3. Clarify the methodology used and especially the link between the modifications proposed and their effects.

The explanation of the methodology has been completely revised with a view to explaining how the impacts have been derived from the proposed modifications. In addition, the limits of the modelling and associated uncertainty have been highlighted.

1.4.1.4. Present the impact on administrative burdens in the format of the EU Standard Cost Model

The EU Standard Cost Model has been used for calculating administrative burden and costs to business and public administration have been separated.

*1.4.2. Resubmission of the report*

The IAB issued an opinion on DG TREN's October resubmission on 13 November 2009. In its opinion, the IAB noted several key issues requiring further explanation or clarification. A second revision of the report has introduced a number of corrections to numbering in the annexes and included a list of modifications clarifying existing provisions and a summary comparison of options for the new measures. In addition, the second revision has taken into account the following remarks of the IAB:

1.4.2.1. Provide more clarity on the nature and magnitude of the underlying problems and the scope of the initiative.

Additional evidence on the nature of discrimination in access to rail-related facilities has been included and the text has been developed to highlight why the problems discussed cannot be resolved by the market. Clarification is given on whether problems result from poor implementation of existing EU law or whether they are new substantive issues.

1.4.2.2. Better justify the new measures by comparing them with possible alternatives.

The report explains why competition authorities and regulatory bodies with their existing powers are unable to regulate the problem of discrimination in access to rail-related services and elaborates on why overall prices for services may decrease. Subsidiarity aspects for each new measure are adequately discussed.

1.4.2.3. Clarify the methodology used and especially the link between the measures proposed and their effects.

Detailed indication of the degree of uncertainty of the quantified impacts is given in Annex XIV. The notion of working conditions is clarified.

## 2. PROBLEM DEFINITION

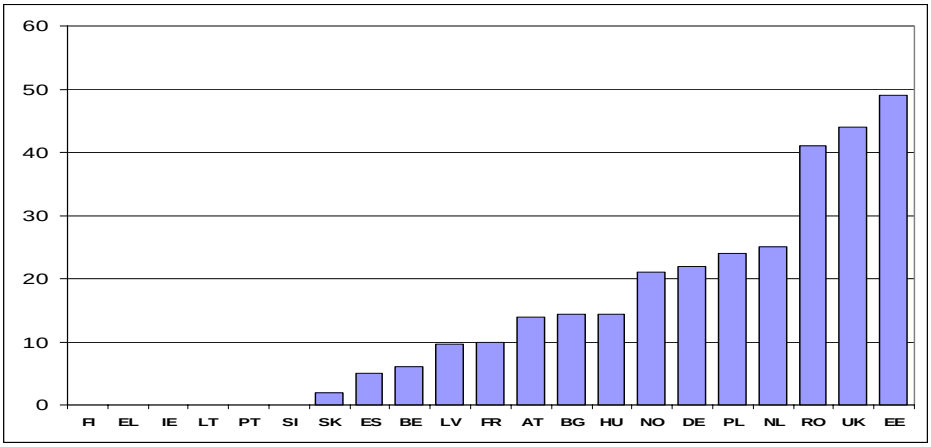
In its Report on the implementation of the first railway package[8] of May 2006, the Commission already identified a number of issues which continue to limit the development of the railway sector despite the transposition of the rail access directives into national law in all Member States, in particular difficult market access, persistent market fragmentation and poor infrastructure quality. This analysis of the development of the rail market is confirmed by other studies and reports and the results of the stakeholders' consultation carried out in the context of this impact assessment. For a detailed analysis of market developments and additional data, please see Annex IV.

Despite good environmental performances and the positive impact of the process of market opening launched with the first railway package, the rail sector continues to suffer from a lack of competitiveness in relation with other transport modes. This is partly due to the technical constraints of a particularly complex mode of transport, which are progressively addressed through the EU rail safety and interoperability legislation. But the obstacles which still stand in the way of rail developing its full potential also lie in the functioning of the rail market, which is not as efficient as it should. The latter is affected in particular by three major problems: (1) a low level of intra-modal competition, (2) an inadequate regulatory oversight and (3) low levels of public and private investment.

(1) A low level of intra-modal **competition:** apart from the technical constraints of this particular mode of transport, this is, due to market access conditions which are not sufficiently precise and therefore still biased in favour of the incumbents, the persistence of conflicts of interest between different market players and discriminatory practices, in particular for access to rail related services (access to terminals, servicing of trains…). Market access remains difficult for new entrants despite existing legislation. The number of new entrants in the rail freight market is still very limited in many Member States, with persistent situations of de facto monopoly in several cases.

[8] COM(2006)189 final.

*Total market shares (%) of non-incumbent rail freight operators at the end of 2008*




*Source: RMMS questionnaire completed by Member States in May-June 2009*

New entrant RUs reported many cases of discrimination in access to rail related services. Such discriminations are, in a sense, a result of market opening. But they also stem from gaps in existing legislation. Due to the dominant position of incumbent RUs who provide rail services, and because of their vested interest in restricting access to services to competing operators, discriminatory treatment cannot be remedied by the market alone and existing market access legislation has not been adequate to address the problem effectively.

Concrete examples of discriminatory practices on access to tracks and rail-related services include km-based infrastructure charging or kWh-based charging for electricity that give disproportionate discounts to the incumbent; denied access to central stations for international passenger trains competing with those of the incumbent, no information nor ticketing facilities in stations for these same trains; denied or very limited access to freight terminals when no alternatives are available; in cases of insufficient independence of the infrastructure manager, confidential information on requests for access made available to the incumbent railway undertaking, which then uses it to distort competition. There are cases of rail undertakings that manage service facilities refusing to give service access to interested parties, thereby discriminating against smaller operators[9]. Such discriminatory treatments reduce the potential development of new business and are more serious when the service is managed by

[9] For example, DG TREN has received complaints by new entrant rail operators against incumbent rail operators which control service facilities. In a case concerning Italy, the complaint is that the new entrant needs a specific service facility to operate its cross-border services into Italy. The incumbent suddenly informs the new entrant that the service facility will be closed down and that the land will be used for other purposes. The incumbent refers the new entrant to another service facility which is geographically located in a way which would not allow the new entrant to continue its services. In fact, according to the new entrant, only part of the facility to be closed will be used for this new purpose, , while the remaining part would be sufficient for the purposes of the new entrant. There is a suspicion that the incumbent wants to prevent its use also to stifle upcoming competition from new entrants. This type of example demonstrates the need for provisions to address this.

the incumbent RU, as evidenced by the Servail report[10] and the contributions received from the consultation process.

Lack of transparency and an ineffective functioning of the institutional framework constitute other barriers to the provision of rail services and competition. Essential information for new entrants, such as on application or appeal procedures, is not yet systematically and easily accessible in "network statements" (the document setting out the characteristics of the infrastructure and the conditions for its use)

(2) Inadequate **regulatory oversight** by national authorities, often with insufficient independence, competences and powers. Regulators' offices in most other Member States are understaffed, have limited investigating powers and cannot enforce their decisions with financial penalties. When appeals against decisions by the regulator have suspensive effect and these decisions can be challenged through the entire judicial system, it can take years before a decision putting an end to an anti-competitive practice is enforced.

Under present legislation cases concerning access to services (the most sensitive and frequent ones in the domain of competition on the rail market) may not be brought to the regulator. The role of the RB in relation to alleged discriminatory access to rail-related services is not defined clearly enough and as such, discriminatory practices cannot be addressed effectively.[11]

In several Member States the office of the rail regulator is integrated in the ministry of transport, which also owns or controls the incumbent railway undertaking regulators and has therefore a financial interest in that undertaking.– a clear case of conflict of interest[12]. The review of activities of such "embedded" regulators clearly shows that they are reluctant to use their powers in relation to the incumbent rail undertaking or the state-owned infrastructure manager.

The directive in force contains rules on account separation, but does not identify the appropriate institutions to enforce these rules. This is left to MS. The result is that the

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10 Cf. Annex II on Stakeholders Consultation and Steer Davies Gleave, SERVRAIL report – Assessment of present and likely future conditions of providing rail-related services, December 2006.

11 For example, in the aforementioned Italian case where access to a rail-related service not in use was denied to a new entrant, the relevant RB was unable to take up the case at the request of that new entrant.

12 An official who is integrated in the hierarchy of the ministry therefore reports to the minister and may be reluctant to take measures against these state undertakings in which his or her own ministry has a financial interest as a shareholder.
This subject is politically very sensitive and therefore it is inappropriate to make judgements about specific RBs who are regular counterparts of the Commission. It has however been observed that regulators who are independent from the ministry are more active and effective. The Commission also has anecdotal evidence of interference at high levels by ministries in certain countries in favour of the state railway company.
This point has been recognised in the domain of competition law for a long time, see for example the La Poste decision (Commission Decision of 23 October 2001, La Poste, regarding the lack of exhaustive and independent scrutiny of the scales of charges and technical conditions applied by La Poste to mail preparation firms for access, OJ L 120/19, 7.5.2002; in the facts underlying this decision, the ministry regulating La Poste was also in charge of ensuring its profitability. In the decision the Commission came to the conclusion that in this case the French State did not provide sufficient guarantees that decisions in the event of disputes would be taken by a body independent of La Poste).
Furthermore, the third Energy Package sets precedent for the requirement that a RB should be an independent public authority and not part of a ministry.

Commission and regulatory bodies are not always in a position to verify whether account separation (between infrastructure management and transport service provision as well as between public service transport provision and other activities) is fully respected[13].

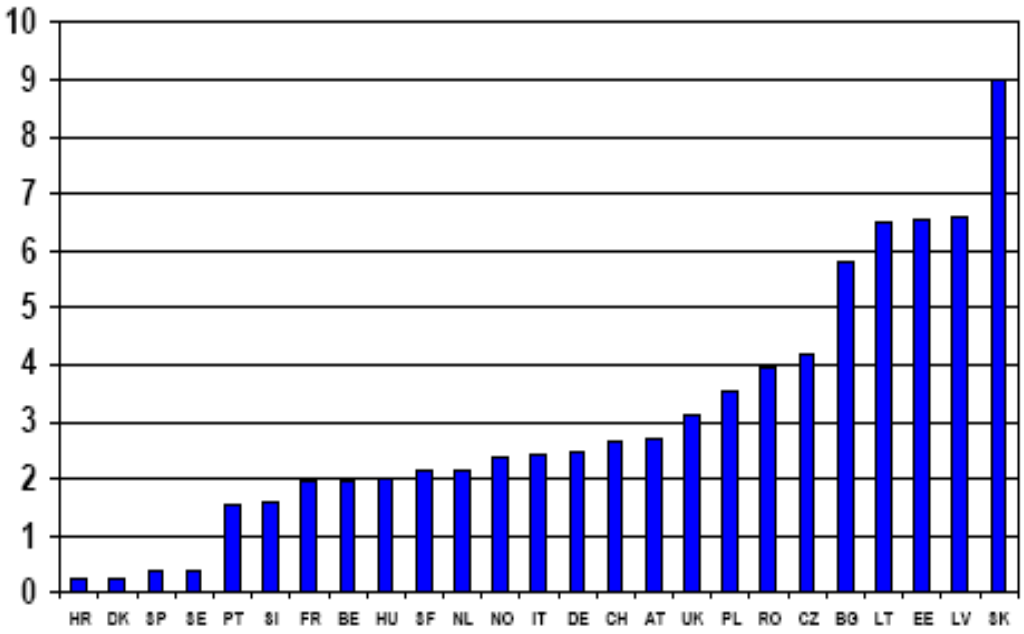
In addition, regulatory bodies do not cooperate systematically in case of problems of discrimination related to international traffic and the absence of exchange of information before a final decision is taken may lead to incoherent or suboptimal decisions.

(3) Low levels of public and private **investment**: as the quality of infrastructure is declining in many Member States because of insufficient funding, investment in railway services becomes less attractive both for incumbent and new operators. Backlogs in maintenance, slow modernisation and bottlenecks on the network are observed. The average operating costs for rail undertakings are high and increasing.

Underinvestment at national level is partly due to the absence of a clear "financial architecture" (investment plans, long term strategies, transparent and state-aid compatible relations between the state – nearly always the infrastructure owner and often the owner of the incumbent railway company – and infrastructure managers and railway undertakings) as well as inadequate charging systems. This situation discourages investment in ancillary services and new technologies and compromises rail's ability to compete credibly with other modes.

Rules on infrastructure charging in present legislation set general principles but fail to define basic concepts such as marginal costs and their components. As a result, charging systems for the use of rail infrastructure differ considerably between Member States. Access charges for typical 960 Gross Ton Freight Trains illustrate this (see below).

**Access charges for typical 960 Gross Ton Freight Train (Euros/Train-Km)**



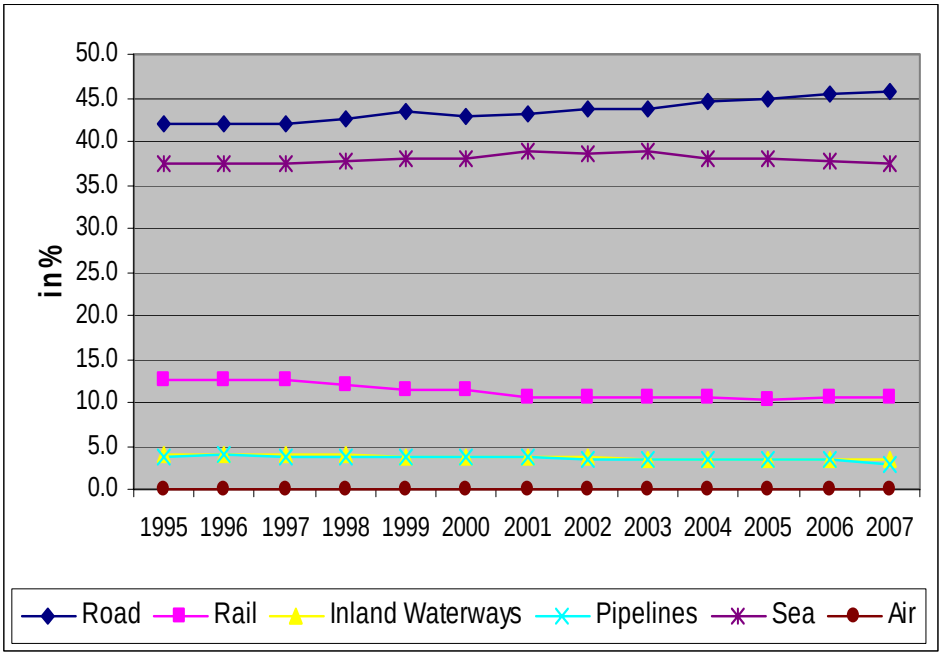

Note: SP=Spain; SF= Finland; figures for 2007
*Source: ITF, Charges for the use of infrastructure report 2008*

[13] According to a report the Commission has recently received, the risk or indeed the occurrence of infringements to the rules is high in several MS ..

The share of infrastructure costs recouped from infrastructure charges ranges from 5% to 100% and mainly depends on the availability of financial contributions by governments to infrastructure managers and on the efficiency of individual IMs. Absence of harmonisation in the structural elements of track access charges and an inconsistent application of the "market-can-bear-it" rule[14] may lead to distortions on charging along the same international corridor, with negative effects on traffic volumes.

As a result of these problems, rail transport cannot deploy its full potential as an attractive and sustainable transport option, its costs are increased and the competitiveness of the sector in relation to other modes, notably road transport, is diminished as illustrated by the evolution of its market share between 1995 and 2007.

*Rail share in freight transport (EU-27, 1995-2007)*




*Source: EU energy and transport in figures statistical pocketbook, 2009.*

In this context a new forward step in rail reform is necessary to remove these obstacles and create a genuine Single Railway Area, which would provide a key contribution to the effective completion of the internal market and the development of an efficient and competitive transport system in line with the EU 2020 Strategy objective of smart, inclusive and sustainable growth.

## 2.1. The recast in context

The persistence of the problems mentioned above is partly due to the incorrect or incomplete transposition of the existing EU rail market access legislation by Member States. Such poor compliance of Member States with the existing acquis might be due to a lack of resources, insufficient political determination, conflicts of interests or political influence of major stakeholders. The Commission has therefore moved to ensure that the enforcement of existing

[14] This rule is set out in Article 8 of Directive 2001/14/EC which states an exception to the rule of marginal cost charging (Article 7(3) -- "directly incurred as a result of operating the train service): "*In order to obtain full recovery of the costs incurred by the infrastructure manager,' a Member State may, if the market can bear this, levy mark-ups on the basis of efficient, transparent and non-discriminatory principles, while guaranteeing optimum competitiveness in particular of international rail freight….*"

legislation is achieved as rapidly as possible, first and foremost by bringing **infringement procedures**[15] against MS who have incorrectly or incompletely transposed the legislation.

However the Commission recognises that there are also shortcomings in the current regulatory framework which need to be tackled to meet fully the initial objectives of the legislation. These weaknesses in the legislation have been identified and analysed over the past few years through a number of studies[16]. The launch of the **recast** of the first railway package is considered by the Commission as the right opportunity to tackle them.

Finally the Commission continues to pursue **complementary policy initiatives** such as the implementation of the Regulation of the European Parliament and of the Council concerning a European rail network for competitive freight[17] which shall also contribute to eliminate market access barriers, reduce fragmentation and facilitate to the development and modernisation of the infrastructure.

## 2.2. Does the EU have a right to act?

### *2.2.1. Treaty base*

In accordance with Title VI of the Treaty on the Functioning of the European Union (TFEU), the EU may take action in the area of transport. Article 90 of the TFEU establishes that objectives of the Treaties, which include establishing a common market and developing common policies to promote a high degree of competitiveness and the harmonious, balanced and sustainable development of economic activities, shall be pursued within the framework of a common transport policy.

Since the 1990s, the Commission has elaborated a framework of common rules and procedures intended to open the European rail market to competition and create a common European Railway Area. The approach has been consistent with the objective of developing Europe's transport sector and contributes to the achievement of Lisbon Strategy objectives.

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15 On 26 June 2008 the European Commission sent letters of formal notice to 24 Member States regarding their failure to implement the legislation correctly and on 14 June 2010 the Commission decided to refer 13 Member States to the Court

16 In December 2006, a study consortium (commissioned by the European Commission) presented a report on rail related services (Steer Davies Gleave, SERVRAIL – Assessment of present and likely future conditions of providing rail-related services, December 2006; published on the Commission – DG TREN E2 website: http://ec.europa.eu/transport/rail/studies/index_en.htm). SERVRAIL assessed the legal and economic access conditions as well as the future development opportunities for rail service markets in Europe. The final report made legal and non-regulatory recommendations aimed at fostering transparency and non-discriminatory access to rail related services. Another study, RAILCALC found that not all infrastructure managers use the direct cost oriented charges as basis for infrastructure user charges, whereby mark-ups could only be charged if the market can bear the higher charge. Moreover, it found that IMs include services not directly related to infrastructure management in the sense of Directive 2004/14EC, and recommended separating non-infrastructure related services more strictly. Thirdly, MS increasingly insist that IMs should recover a higher share of their maintenance costs. To overcome these deficiencies and problems, RAILCALC suggested a more wide spread use of activity-based cost accounting. Some IMs already apply this accounting system and there is positive feedback and best practice examples are available. Activity-based cost accounting is only one of several approaches to accounting compatible with the EU legislation. Final paper available at: http://ec.europa.eu/transport/rail/legislation/doc/railcalc_discussion_paper_final.pdf. The existing rail access legislation has led to the setting-up of an institutional and procedural framework which should enable market entry and competition as well as foster an improvement in the performance of rail transport in a number of MS.

17 COM(2008)852 final.

*2.2.2. Subsidiarity*

The EU is best-placed to adopt common rules for the rail market that grant the right to all railway undertakings to operate throughout Europe without discrimination. problems affecting the railway sector involve trans-national aspects that require action to be taken at the EU level (50% of rail freight transport is international and crosses borders in Europe).

The lack of coordination in the relationships between MS and other actors reduces the efficiency of international rail transport, risking a shift from rail traffic to road transport which would result in increased congestion and pollution within MS.

Clarification of the existing EU regulatory framework for rail market access in order to facilitate market entry and competition as well as to develop rail service markets including those linked to rail transport provisions can be better achieved by the Union than by MS individually.

In accordance with the principle of subsidiarity, as set out in Article 5 of the Treaty on the European Union, the objective of revitalising Europe's railway sector will be better reached by complementing action already taken at EU level and by MS by EU action to recast the first railway package.

### 2.3. Affected stakeholders

The following categories of stakeholders are directly affected by the problems identified:

– Railway undertakings, including incumbents and new entrants;

– Infrastructure Managers;

– Authorities, including rail regulatory bodies, competition authorities and transport ministries;

– Railway manufacturers, wagon keeper and rail car leasing companies;

– Terminal operators, operators of maintenance workshops and other providers of rail related services;

– Rail sector workers;

– Customers including freight customers and rail passengers.

In addition, society at large is affected indirectly by the problems set out.

## 3. OBJECTIVES

### 3.1. General Objectives

The main objective of the EU transport policy is to establish a single market and develop common policies to promote a high degree of competitiveness and the harmonious, balanced and sustainable development of economic activities. Complementing and strengthening existing measures adopted at EU level in the area of rail, the proposal to recast the first railway package shall contribute to this objective by facilitating the integration and development of the European rail market. The creation of a genuine internal market for rail is fundamental for the revitalisation of the railway sector and will contribute to promoting the

competitiveness of rail freight and passenger transport services thereby decreasing their cost and increasing their attractiveness and modal share.

The European Council in Gothenburg in 2001 adopted the Sustainable Development Strategy (SDS) whose principles and objectives – economic prosperity, social equity, environmental protection and international responsibility – were renewed by the Council in June 2006. The Commission aims to pursue the EU SDS goals of achieving a balanced shift towards environmentally-friendly transport modes in order to foster sustainable transport and mobility and of reducing pollutant emissions from transport to levels that minimise effects on human health and/or the environment. Because of rail transport's higher energy efficiency (especially as compared to road transport), a contribution to the shift in the modal share of transport from road to rail will result in fewer emissions and reduce other pollutant emissions.

### 3.2. Horizontal Objectives

The aim of simplifying, clarifying and modernising the regulatory environment in Europe is central to the work of the Commission. Meeting these cross-cutting strategic objectives has led the Commission to develop and pursue a far-reaching Better Regulation agenda, with a view to making further progress towards the Lisbon objectives for jobs and growth.

Legal **simplification** through consolidation ("*codification*") with the merger of the three directives in force and their successive amendments (all in all nine directives, one decision and two acts of accession), is the first horizontal objective which underpins this recast initiative. An elimination of existing cross-references and the harmonisation of terminology would be instrumental in attaining this objective. In addition, such simplification would also have benefits for citizens and businesses by making the legislation more transparent. The vast majority of changes proposed falls under this category, and is therefore a formal operation;

Secondly, the Commission considers that **clarification** of some provisions of rail access legislation (solving in particular problems of diverging interpretations by Member States) would facilitate a proper transposition and efficient implementation of EU law in all Member States. As noted above, some provisions of the first railway package do not sufficiently define means for implementation. The main substantive changes proposed fall under this category;

Finally, there is a need to **modernise** the legislation by eliminating out-dated provisions (which were historically relevant prior to full market-opening and may be connected to the traditional integration of operator and infrastructure manager), by adapting certain rules to the evolution of the market over the last decade and by making use of the new regulatory instruments created by the Treaty on the Functioning of the European Union (in particular implementing and delegated acts).

### 3.3. Specific Objectives

Five specific objectives have been identified during the consultation process to address the problems of insufficient competition, inadequate regulatory oversight and low levels of investment described above.

(1) To improve competition on the rail market, **fostering non-discriminatory access to rail related services for all rail undertakings** is a first objective of the recast initiative. Limited access to and unfair pricing of rail related service facilities such as terminals, maintenance workshops, shunting, marshalling yards and supply equipment for traction current have been identified as important obstacles to market entry. Improved (and in certain cases guaranteed) access to rail-related services (subject for instance to management independence

requirements) for freight and passenger trains, with explicit rules on conflicts of interest and discriminatory practices is therefore considered essential to allow the development of a competitive rail sector. Existing conflicts of interest between service providers and rail undertakings in the management of such facilities have to be removed.

(2) **Improved transparency of the rail market** access conditions is also essential to allow fair competition. Information about access conditions to infrastructure and service facilities (i.e. network statements, price, capacity requests, international path allocation procedures) as well as on requirements and fees (i.e. licensing and insurance, charging schemes) and on procedures (i.e. dispute resolutions and appeal) is essential for all potential operators. In the same manner, transparency of access procedures and charging systems should be enhanced. Easy access to such information shall be ensured to allow market entry. Transparency of rail undertaking accounts has to be ensured to provide clarity about financial flows to facilitate market supervision by regulatory bodies and the Commission and avoid distortions of competition.

(3) In relation with regulatory oversight enhancement, **cross-border co-operation and coordination among regulatory bodies** has to be reinforced to facilitate international rail transport and to avoid fragmentation of the internal market. In particular regulatory bodies have to be given the powers to take decisions on cross-border issues and in order to do so they need to be able to exchange information.

(4) Effective and harmonised **incentives for sound and sustainable financing of railway system** have to be provided to encourage investments. This implies in particular a harmonised "financial environment" (with, in particular, national long-term strategies, multi-annual contractual agreements between the state and infrastructure managers linking funding to performance, and business plans), more precise and smarter infrastructure charging rules providing incentives for investment in sustainable rail technologies have to be introduced (with the introduction of noise-related modulation as the rail equivalent to external cost charging for road transport, discounts for technological innovation and interoperability, and compulsory reservation charges). The basis for the introduction of effective and coherent performance regimes has to be created.

(5) Finally **enhancing the competences** (to rail-related services), **the independence** (from any other public authority) and means (with sanctions, audit and ex-officio investigating powers) **of the national regulatory bodies**. It has to be possible to challenge their decisions in court, but appeals should have suspensive effect only in exceptional circumstances (in case of irreparable damage).

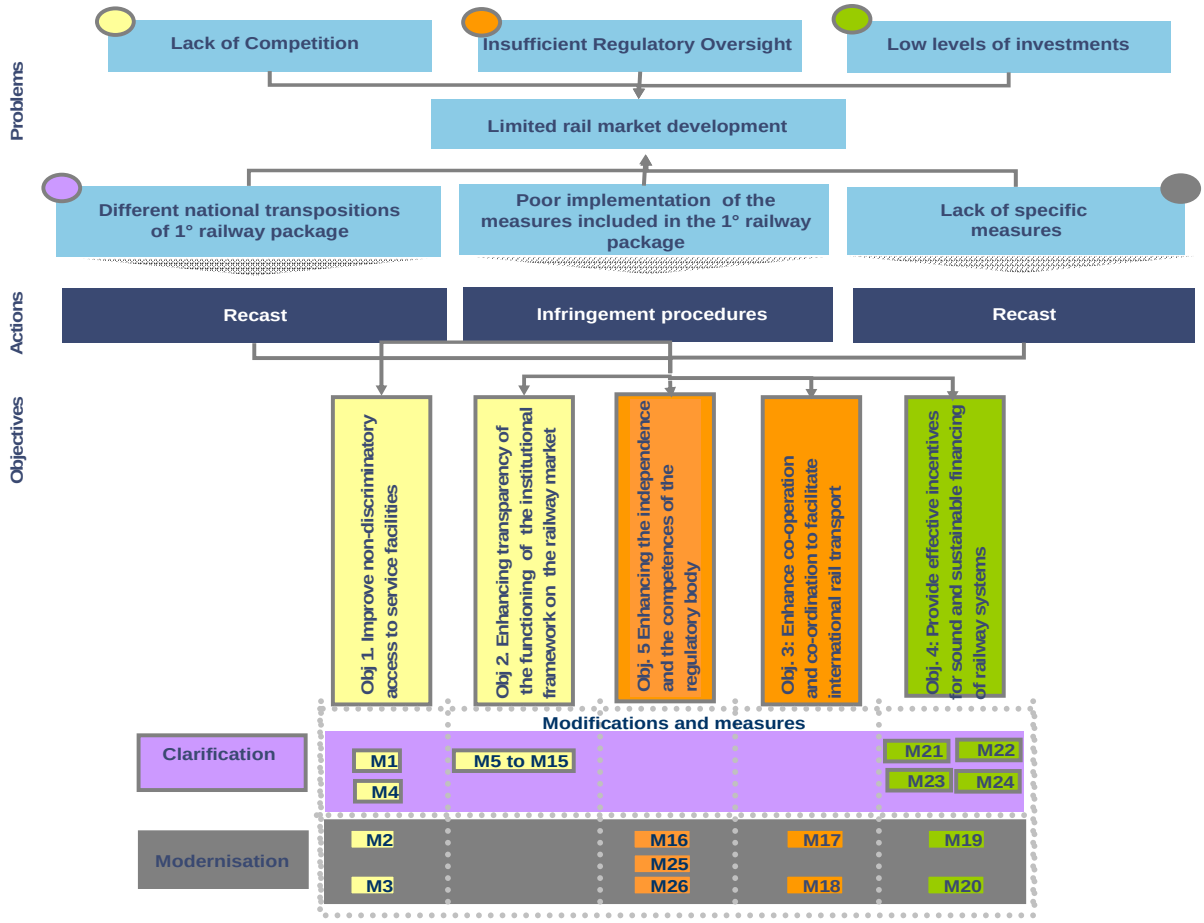
## 4. PACKAGE OF MODIFICATIONS

Based on extensive research and evaluation, the Commission identified modifications listed in Annex that could potentially contribute to achieving each of the specific objectives outlined above. On the basis of prior studies[18] and taking into account input from stakeholders, the Commission initially came up with 37 modifications grouped under the five specific objectives. A thorough pre-screening of these 37 modifications resulted in the elimination of some. The pre-screening took into account the results of the stakeholders' consultation and an

[18] Notably, the Report from the Commission on the implementation of the first railway package (cited above), Communication of the Commission on monitoring development of the rail market (cited above), studies on multi-annual contracts and rail related services (cited above).

independent assessment of the modifications is detailed in Annex V. A total of 26 modifications was finally retained.

The link between problems, objectives and each modification is illustrated by the following diagram as well as a matrix in Annex III. In such matrix all modifications are listed per problem and per objective. It also makes a clear distinction between clarification and modernisation measures.




For the retained modifications which clarify existing provisions (17 modifications), an evaluation of potential additional administrative cost was carried out (see Annex XIII).

For measures which introduce new provisions (9 measures), an impact assessment was deemed necessary. Since in the case of four of these measures a prior impact assessment exists, a full analysis was only carried out on the 5 other measures. In this report, the economic, social and environmental impact of a series of options for each of the five measures is compared. Following this analysis, one option was retained per measure and included in the package.

### 4.1. Modifications clarifying existing provisions

A majority of modifications proposed in the context of the recast intend only to clarify provisions in rail access legislation. Measures 1, 4 to 15, 21 to 24 fall under this category.

These provisions are not always interpreted in the same manner across MS. The modifications contribute to two specific objectives – **enhancing transparency** and **providing incentives for sound and sustainable financing of railway systems.**

These 17 modifications clarify the scope of existing legislative provisions with a view to enhancing transparency, providing incentives for sound and sustainable financing and complementing existing procedures and better representing the original intentions of the legislator. These clarifications will facilitate accurate transposition at MS level and reduce inconsistent application of the same provisions throughout the EU.

*4.1.1. Modifications to enhance transparency of the functioning of the institutional framework on the railway market*

The modifications **clarify service-access rights** (as regards the "minimum access package" and the provision of traction current, non-discrimination requirements and energy charges), **make publication requirements explicit** (for example, regarding dispute resolution and appeal, price information for rail related services and service facilities, international path allocation procedures, the language and format of Network Statements and licensing requirements and fees) and **clarify monitoring and control** (by requiring separate accounts and access to related data, as well as by formalising the monitoring which to some extent already takes place at European level as regards items such as rail infrastructure investments, development of prices and quality of rail transport services and public service obligations for rail passenger transport).

*4.1.2. Modifications to provide incentives for sound and sustainable financing of railway systems*

The modifications include more clearly defining the main characteristics and general principles of performance regimes, introducing harmonised structural elements in track access charging schemes for international transport and explicitly abolishing the possibility for RUs to collect rail infrastructure charges.

**Administrative costs:**

The administrative burden associated with the clarification of existing provisions has been careful examined using the EU Standard Cost Model for calculating administrative costs. Costs to business and public administration have been separated. Annex XIII shows that the administrative burden consists primarily of one-off costs due to the adaption of stakeholders' organisation and procedures to the new provisions. These costs will be borne essentially by public authorities and infrastructure managers acting in a situation of natural monopoly and not by railway operators. They would remain limited as the administrative actions required correspond to what they would normally do under the current legal framework. More precise rules will ensure that unnecessary administrative burden will actually disappear.

## 4.2. Modernisation

*4.2.1. Conclusions of prior Impact Assessments*

Four of the measures proposed in the recast which aim to modernise provisions in the legislation have already been the subject of prior impact assessments. The latter have shown that their implementation will have positive impacts as explained below. Thus in the context of this analysis, no new assessment needs to be carried out.

Two of these measures contribute to the specific objective of **enhancing cooperation and coordination of regulatory bodies:**

– *Oblige regulatory bodies to cooperate and empower them to take joint decisions in case of a problem related to access or pricing (complaint based or ex-officio action) in the case of international services (e.g. related to a facility in a border-crossing station) – M17*

– *Authorise RBs to exchange information ahead of a national decision in case of a problem related to access or pricing (complaint based or ex-officio action) in the case of international services. – M18*

The Impact Assessment Report accompanying the Proposal for a Regulation of the European Parliament and of the Council concerning a European rail network for competitive freight[19], highlights that the most sensitive questions related to infrastructure capacity for international rail freight in particular are a lack of cooperation both in terms of investment and the operational management of infrastructure which can lead to discontinuation at borders.

Moreover, the absence of effective means to mediate cross-border operations-related issues further compounds the problem. Thus, the freight impact assessment considered as one of its operational objectives the need for regulatory bodies to improve cooperation between each other. The Report found that such cooperation could have a positive impact and facilitate the international transport of goods. The preferred policy option overall was one of legislative enforcement, which is consistent with the approach proposed for the two measures mentioned above.

The other two measures contribute to the objective of providing incentives for sound and sustainable financing of railway systems:

– *Introduce differentiation[20] of track access charges depending on the noise emission characteristics of the rolling stock composing the train- M19*

Noise is one of the most widespread public health threats and while rail is generally considered to be one of the most environmentally friendly transport modes, the contribution of rail transport to noise pollution (with freight trains as the largest source) is considerable.

The elimination of noise requires retrofit of rolling stock and the main obstacles to this on a large scale are financial – the lack of direct influence on the decision on retrofitting programmes (IMs, Member States) and/or the lack of short-term benefits and funds (RUs and wagon owners).

The Impact Assessment Report accompanying the Communication from the Commission to the European Parliament and the Council on Rail noise abatement measures addressing the existing fleet[21] noted that due to the fact that about 50% of rail freight transport is international, with a large number of wagons running across national networks, action at European level is required. It defined as an objective for the EU the establishment of rail noise abatement programmes to curb noise emissions of freight trains without jeopardising the competitiveness of rail freight.

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19 SEC(2008)3029.

20 "Differentiation" in this context means that those wagons that have higher noise emissions will pay higher track access charges than those wagons that are quieter.

21 SEC(2008)2204.

The Impact Assessment Report found that retrofitting freight wagons with low-noise braking technology is the most cost-effective measure. The Report determined that differentiated track access charges with a noise bonus for silent wagons constitute an appropriate solution to achieve the objectives of rail noise reduction while maintaining the competitiveness of rail freight. This is the approach proposed in Measure 19.

The same Impact Assessment noted that the harmonisation of differentiated track access charges at European level (as provided by Measure 23) is a crucial factor for the effectiveness of this instrument as solely national solutions would not provide the necessary financial incentives for retrofitting and could lead to unacceptably high administrative costs.

– *Oblige Member States to publish a medium- to long-term railway sector development strategy that enables future mobility needs to be met and which is based on sound and sustainable financing of the railway system (e.g. based on multi-annual contracts.) Empower an independent body such as the Regulatory Body to assess the appropriateness of the envisaged medium- to long-term budgetary envelope for the high-level infrastructure output specifications for the same period – M20*

The Impact Assessment Report accompanying the Communication from the Commission to the Council and the European Parliament on Multi-annual contracts for rail infrastructure quality[22] points out that 31% of IMs do not have sufficient budget and have average annual deficits varying from 10% to 89%. Such scarcity of funds has caused an investment backlog in maintenance and modernisation.

The Report noted that because costs covered by access charges vary substantially in MS, state contributions are indispensable for the functioning of rail infrastructure. Such contribution to the railway sector, meant to cover the financial gap, tend to fluctuate on a yearly basis in the MS. The insecure outcomes of negotiations on the annual State budget leads to uncertainty regarding the level of funding and consequently the level of works needed to maintain the railways to a predefined quality standard. IMs have traditionally been funded annually by MS. In these circumstances, MS can find it difficult – faced with year-to-year political priorities and budgetary pressures to push forward funding for network renewal and maintenance.

Degradation of infrastructure quality is linked with maintenance budgets that are not realistic in relation to the State's strategic infrastructure plan or to what implicitly the State expected from the infrastructure manager. The assessment by an independent body like the regulator should lead to a better match of finance and tasks for the infrastructure manager.

Furthermore, maintaining the infrastructure on a long-term basis facilitates more efficient planning and realisation of maintenance works. Investment in new transport services and client relationships presupposes predictable quality of the transport service and hence the necessary reliability and quality of infrastructure.

Of the policy options assessed, it was found that an increase in reporting, consultation and publication of information on infrastructure quality and the costs of maintenance as well as the monitoring and enforcement of quantified targets on cost reduction would be the option with the most positive impact. This is the approach proposed in Measure 20.

[22] SEC(2008)132

### *4.2.2. Modernisation: measures without existing impact assessment*

An additional 5 measures would modernise existing provisions in the legislation and these are analysed in detail below.

## 5. QUALITATIVE IMPACT ASSESSMENT OF 5 NEW MEASURES

A description of the methodological approach for this qualitative impact assessment is reported in Annex VII, a detailed presentation of the impact assessment carried out on each of the 5 measures is included in Annexes VIII to XII in which subsidiarity questions are also raised. The evaluation of administrative costs presented in Annex XIII covers these five measures.

### 5.1. Supply of rail-related services – M2

For details please see Annex VIII.

Four Policy Options have been preliminarily identified by the Commission for ensuring non discrimination in the supply of rail related services. Policy Option "Baseline Scenario" reflects the "status quo" scenario. Policy Options 1, 2 and 3 foresee different new solutions that envisage the introduction of independence requirements for the management of service facilities (ranges from least radical requirements of Policy Option 1 to most radical requirements of Policy Option 3). The following table illustrates the Policy Options 1, 2 and 3.

| Option 1 | Option 2 | Option 3 |
|---|---|---|
| Where the operator of the service facility belongs to a firm or entity which is also active and holds significant market power in at least one of the railway transport markets concerned, the operator shall be organised in a way that it is independent in legal terms of this firm or entity. | Where the operator of the service facility belongs to a firm or entity which is also active and holds significant market power in at least one of the railway transport markets concerned, the operator shall be organised in a way that it is independent in legal, organisational and in decision making terms of this firm or entity. | In all cases, where the operator of the service facility belongs to a firm or entity which is also active in at least one of the railway transport markets concerned, the operator shall be organised in a way that it is independent in legal, organisational and in decision making terms of this firm or entity. |

#### *5.1.1. Baseline scenario*

This scenario presumes no change in the existing legal framework. The Commission would enforce existing Directives through the use of infringement procedures against Member States that have implemented Community law incompletely or incorrectly. In particular, through such corrective measures the Commission will ensure that the supply of service is provided in a non-discriminatory manner, according to Article 5 of Directive 2001/14/EC.

However, full implementation of the 1st railway package will not be able, alone, to protect against discrimination[23]. Conflicts of interest between incumbent service providers and RU will remain[24] and a more rational use of infrastructure will not be ensured. Regulatory Bodies may not be able to intervene in cases where discrimination occurs where facilities or services are managed by transport operators. In such cases, competition authorities should intervene.

[23] In Germany, where the Regulatory Body is fully established and operational, new entrant RU reported discrimination in the access to service facilities.

[24] A number of the services that fall under the auspices of Article 5 of the Directive are provided by either independent private or public bodies, or by the former national rail operating companies

However, competition authorities may not have specific competences in rail transport market. This peculiar situation creates a void in the procedural and regulatory framework that may not be able to ensure non discriminatory access to the services (transport operators would keep using their strong market position to limit the access to service facilities of new entrants). It is likely to foresee that internal competition in the rail transport market will be lower than it might otherwise be.

### *5.1.2. Impact analysis*

#### 5.1.2.1. Cause effect analysis

Introducing independence requirements for the management of service facilities from rail transport provision will reduce the conflicts of interest between the management of the service and the management of the facility; in addition it will provide more independence of the operator of the facilities from the RU in cases where the RU was responsible for the service facilities before. This will reduce discrimination (in terms of the prices applied and service availability) in the access to services, thus contributing to the development of business of new entrants. Under the new shape of the market, facility operators will be free to maximise their profits by making their service available to a higher number of clients. This will contribute to a more rational use of the facility infrastructure that could, in the long run, contribute to making the service facilities management business more attractive for new operators.

#### 5.1.2.2. Policy option 1

Under this option, conflicts of interest will still persist because the operator of a service facility could be part of a holding company that also controls an incumbent railway undertaking. Hence, this option is not expected to be very effective because in most cases it will not guarantee higher independence. Additional administrative costs to both the public and business sectors (compared to the baseline scenario), related to information requirements, are foreseen: “one off” costs related to the development preliminary analysis and national action plans (public sector;) and related to the set up of new legally independent structures (operators of service facility); “recurrent” costs related to the need of additional information flows through the separated entities -i.e. financial reporting to the holding, notifications and information to ensure transparency- (business sector).

#### 5.1.2.3. Policy option 2

Option 2 is expected to be fully effective because it will ensure adequate independence between the operators of the service facility and the firms or entities which are also active and hold significant market power in railway transport market.

This option could have a relevant impact on the development of rail-related services (i.e. an increased number of service providers) that is likely to result in easier access to rail related services for new entrants that can indirectly contribute to the opening of the market, to increase the market share of new operators and to ensure higher transparency on charges.

On average, new entrant RUs are likely to pay lower tariffs than in the baseline case with a possible reduction of average operating costs for RU as a result of the elimination of discriminatory pricing and the higher costs for new entrants. This, in addition to the effect of the increased number of service providers, may result in a slight decrease of costs of rail transport and hence in modal shift from road transport to rail transport. Administrative costs will be lower than under option 1: “one off” costs for the operators of the service facility will

be higher than in option 1 since the number of entities involved in the process will be higher, while those for the public sector will be the same as in option 1. Compared to the baseline, no additional "recurrent" administrative costs are expected.

Owing to the development of rail related service business, a larger workforce will be needed. Improved working conditions and, above all, increased demand of skilled personnel (staff prepared for higher mobility and to work abroad) are expected. As a consequence, higher demand for training centres and higher quality training will be generated.

Owing to the potential modal shift from road to rail transport, benefits in air quality could be obtained in terms of reductions of NOx and PM emissions. The impact on climate change, estimated through the emission of CO2, could also be positive. Moreover, benefits due to the reduction of energy consumption could arise. By contrast, modal shift may result in higher noise emissions (disbenefits due to the increase of noise emissions are about 1/10 of the benefits achieved by reducing the emission of pollutants expressed as external costs).

5.1.2.4. Policy option 3

Even if option 3 is stricter than option 2 in terms of independence, it is not expected to be as effective. Under this option the operators of service facilities are required to be fully independent from firms or entities which are also active in railway transport market, regardless of whether they hold significant market power. Broadly speaking this means that a new entrant railway undertaking that has recently invested and developed a new service facility will be asked to sell the asset or to grant its management to someone else. This is likely to result in lower attractiveness for investments on new service facilities.

Because of these side effects, this option is not considered to be as effective as option 2 in ensuring the development of the rail related services market and it could create a new market barrier for new entrants. Hence it is not expected that option 3 will have the same effect as option 2 in opening the market to new railway undertakings and to increase the market share of new entrants. For the same reason, other expected economic impacts, such as the reduction of tariffs for rail related services, will not be as marked as for option 2. Consequently the capacity of option 3 of shifting freight traffic from road to rail will be lower than option 2. Under option 3 administrative costs will be slightly higher than under option 2: "one-off" costs incurred by the operators of the service facility are expected to be higher than in option 2, as a consequence of the major number of entities affected by the measure.

Social impacts are indirect effects of expected economic impacts (such as the development of the rail related service market or the modal shift from road to rail), thus the need for workforce and more skilled personnel would be lower than in option 2.

Finally positive environmental impacts, if any, will be lower than with option 2 because the shift of freight from road to rail is expected to be lower.

*5.1.3. Conclusions and recommendations*

Option 2 is the most promising option because it excludes possible conflicts of interest of the operators of the service facility in the provision of services to incumbent railway undertakings and new entrants. Option 1 should not be retained because it is not considered to be effective in excluding such conflicts of interest. Option 3 is not advisable either because it would discourage the future investments on the realisation of new service facilities by the new entrant railway undertakings.

## 5.2. Availability of service facilities – M3

For details please see Annex IX.

### *5.2.1. Policy Options*

Four Policy Options have been preliminarily identified by the Commission for increasing availability of service facilities. The policy Option "Baseline Scenario" reflects the "status quo" scenario. This scenario presumes no change in the existing legal framework. Policy Options 1, 2 and 3 foresee different solutions for the particular provisions where facilities are not in use (least radical requirements of Policy Option 1 to most radical requirements of Policy Option 3). The following table illustrates the Policy Options 1, 2 and 3.

| Option 1 | Option 2 | Option 3 |
|---|---|---|
| Financial penalty in the case of non-use of facilities. | Where the service facility is not in use its owner shall publish the operation of the facility for lease or rent. | Where the service facility is not in use its owner shall publish the operation of the facility for sale. |

### *5.2.2. Baseline scenario*

The "Baseline" Policy Option reflects the 'Status Quo' or 'Business as usual' or 'Baseline' scenario. This scenario presumes no change in the existing legal framework. The Commission would enforce existing Directives through the use of infringement procedures against Member States that implemented Community law incompletely or incorrectly. In particular, the Commission will ensure that the supply of service is provided in a non-discriminatory manner, according to Article 5 of Directive 2001/14/EC.

A number of facilities (i.e. railway stations, marshalling yards, refuelling facilities), belong to the IM (or to the incumbent RU) and are managed either by the IM or by the incumbent RU. The capacity of many facilities is reaching their limit. The full implementation of the first railway package, ensuring non discriminatory access to service facilities, is expected to contribute to a more rational use of the infrastructure. However, alone, it would not be enough to increase availability of service facilities that much. There are several examples of facilities that are not used, even if located in strategic positions of the networks. EU legislation does not foresee any provision where facilities are not in use. This void leads to an irrational use of the assets and results in facilities not being operated, being unavailable for new entrants, or assets being sold to real estate developers to finance other kind of investments. Since the construction of new facility infrastructure requires huge investments and takes a long time, without a rational use of existing assets, it is likely that rail market development will be lower than it might otherwise be, since capacity will not be adequate to ensure market growth.

### *5.2.3. Impact Analysis*

#### 5.2.3.1. Cause effect analysis

The introduction of specific provisions to cover cases where service facilities are not used could incentivise the more effective use of the existing assets, thus creating additional infrastructure capacity with a minimum investment. Increased availability of service facilities will contribute to the removal of specific bottlenecks in the rail market (i.e. to reduce waiting time at the borders, to develop peculiar market segments such as single wagon market, to reduce problems connected with access to refuelling facilities). It could also attract private operators to run service facilities. This will contribute to more effective use of the facility infrastructure. Higher availability of service facilities and more competition in the facility

management business would create a down pressure on fees. In addition, new transport operators could benefit from reduced discrimination and expand their businesses.

5.2.3.2. Policy option 1

The application of financial penalties in the case of non-use of facilities is not likely to be always effective. In some cases, in order to prevent entry into the rail transport market of new competitors, operators may prefer to pay the financial penalties instead of re-open the facility.

In the worst case, the facility owner may consider the opportunity of avoiding the payment of financial penalties by selling the land/asset to real estate developers thus preventing the entry in the market of competitors. Furthermore, when the service facility owner is an incumbent RU, it may opt for selling the land/asset in order to raise new funds that could be employed in new investments that will further strengthen its market position.

Additional administrative costs to be borne both by the public authorities and by the operators of the service facility, compared to the baseline scenario, related to information requirements are foreseen: “one off” costs related to the development of preliminary analysis, of guidelines and of national "Service Facilities" registers and for the implementation of national schemes for the application of penalties (public sector) and related to the provision of information on service facilities to the MS (business sector);“recurrent” costs for updating the “Service Facilities” register and for enforcing the new rule (public sector).

The possible benefits of the option can not counterbalance the drawbacks.

5.2.3.3. Policy option 2

Where the service facility is not in use its owner will be obliged to publish the operation of the facility for lease or rent**.**

This option can have a moderate impact on the development of rail-related services: new service providers could take over the management of service facilities that previously were unused. As a consequence availability of service facilities will grow. New managers of the service facilities will try and maximise their profits offering higher a quality of services to a larger number of clients. This will ensure a more effective use of the infrastructure. This scenario is likely to result in easier access to rail related services for new entrants that can indirectly contribute to the opening of the market and to the increase of the market share of new entrants.

On average, new entrant RUs are likely to pay lower tariffs than in the baseline with a possible reduction of average operating costs for RU that may result in a slight decrease of costs of rail transport and hence, (in conjunction with increased service facility availability) in modal shift from road transport to rail transport.

The implementation of option 2 will require higher administrative costs than option 1, for all subjects affected, due to: additional costs for establishing tailor-made administrative processes for leasing or renting the assets (“one-off” costs for public authorities), additional costs for monitoring the availability of service facilities and publishing the facility to lease or rent ( “recurrent” costs for operators of service facilities).

Owing to the development of the rail related service business a larger workforce will be needed, working conditions improved and, above all, there will be an increased demand of

skilled personnel prepared to be more mobile and ready to work abroad. As a consequence, a higher demand for training centres providing higher quality of training will be generated.

See section 5.1.2.3 above for the possible environmental benefits resulting from a potential modal shift from road to rail transport.

5.2.3.4. Policy option 3

Option 3 is more radical than option 2 since it imposes on the facility manger an obligation to sell the facility when it is not in use.

However, if the facility owner is interested in preventing the entrance into the market of new RU competitors it might opt for selling the land / asset to a real estate developer rather than to another manager willing to run the services facility. Hence, this option is not likely to produce any positive effect in most of the cases.

Under this option the expected administrative costs will be slightly lower than those in option 2, due to higher "recurring" costs of option 2 for managing legal, administrative and operational procedures for selling the assets, that are expected to be more expensive that those for renting/leasing it (business sector).

*5.2.4. Conclusions and recommendations*

According to the impact assessment analysis the most promising option is option 2. Under this option administrative costs are expected to be higher than under option 1. However the benefits achievable by choosing option 2 will largely pay back the additional administrative costs. Option 3 should not be considered because it is less promising than option 3 in terms of expected benefits.

## 5.3. Accounting separation – M16

For details please see Annex X.

*5.3.1. Policy Options*

Four Policy Options have been preliminarily identified by the Commission for ensuring accounting separation between IM and RU. Policy Option "Baseline Scenario" reflects the "state of the art" scenario. This scenario presumes no change in the existing legal framework. Policy Options 1, 2 and 3 foresee different solutions for empowering Regulatory Bodies to check compliance with separation of account rules and to provide instructions for the provision of information (from least radical requirements of Policy Option 1 to most radical requirements of Policy Option 3). The following table illustrates Policy Options 1, 2 and 3.

| Option 1 | Option 2 | Option 3 |
|---|---|---|
| Oblige IMs and RUs to carry out regular independent external audits and to deliver the results to RBs | Empower the rail regulatory body to carry out audits or to initiate external audits with railway undertakings and infrastructure managers to verify the compliance with accounting separation provisions<br><br>and<br><br>Empower regulatory bodies to require cost accounting data in an aggregated and standardised format as 'regulatory accounts" with recommended minimum data to be provided in a common format, which include infrastructure managers' main cost elements and performance parameters. | Empower the rail regulatory body to carry out audits or to initiate external audits with railway undertakings and infrastructure managers to verify the compliance with accounting separation provisions<br><br>and<br><br>Empower regulatory bodies to require cost accounting data in an aggregated and standardised format as 'regulatory accounts" comprehensive unified set of data which includes infrastructure managers' main cost elements and performance parameters as well as a number of other elements, to be provided in prescribed common format (template). |

### *5.3.2. Baseline scenario*

Scenario of Policy Option "Baseline" reflects the 'Status Quo' or 'Business as usual' or 'Baseline' scenario. As noted previously, the Commission would enforce existing Directives through the use of infringement procedures against Member States that implemented EU law incompletely and or incorrectly. In particular, according to Directive 1991/440/EC, Article 6, Member States will take the measures necessary to ensure that separate profit and loss accounts and balance sheets are kept and published, on the one hand, for businesses relating to the provision of transport services by railway undertakings and, on the other, for businesses relating to the management of railway infrastructure. This separation of accounting will also serve as a control to verify that public funds paid to one of these two areas of activity may not be transferred to the other and to ensure that infrastructure charges are set at the cost that is directly incurred and that price increases are aligned with the "if the market can bear it" rule.

However, in many cases data needed to support financial reporting, regulatory oversight and economic analysis simply are not available in sufficient detail or in a common format for all countries. If on the one hand, the full implementation of the first railway package will contribute to improved separation of accounting then, on the other hand, the lack of specific provisions - for identifying a single entity controlling the quality and nature of data provided, as well as the lack of requirements concerning the nature and quality of information to be reported - could reduce the effective implementation of the measures (low level of control) and will not ensure the provision of sufficient information to Regulatory Bodies to grant the correct formulation of charges for the use of infrastructure and services.

Even if it is likely that, in the long run, the entry into the market of private operators in conjunction with the opening of the rail passengers market would make the rail market more competitive, it is expected that under this scenario growth of the market will be lower than its potential. Control over the correct application of charging principles and the effective utilisation of State funds will not be assured. Conditions for the creation of an internal market for rail as well as for boosting market opening will not be created.

### *5.3.3. Impact Analysis*

#### 5.3.3.1. Cause effect analysis

Should the Regulatory Bodies be given the responsibility for auditing the accounts (or checking audits) they could supervise compliance with the separation of accounts principles,

thus being in the position to identify "unfair" behaviours or critical situations to be taken under control. Cross-transfers among lines of business would be reduced as well as the improper use of state funds.

Furthermore if the Regulatory Bodies were also entitled to issue instructions on how to provide information (i.e. minimum set of data, IM performance parameters, etc.), they would be able to control the compliance of fees being applied in keeping with charging principles. Large differences in fees applied in EU countries, which result from the existing patchwork of charging schemes adopted, would be reduced, since Regulatory Bodies would be able to carry out thorough benchmark analyses. The market would benefit from adequate fees for market segments that may even result in lower fee applied for new entrants. Additional specific information available to Regulatory Bodies would also increase the possibility of identifying unfair treatment of new entrants and which as a consequence, would be reduced. Barriers to market entry would be expected to diminish, with a consequent increase in internal competition of the rail market.

5.3.3.2. Policy option 1

Policy option 1 is expected to be the least effective, because compared to options 2 and 3, it would not entitle the Regulatory Bodies to require cost accounting data in an aggregated and standardised format.

The implementation of the option would reduce market distortions and the rail market will benefit from more internal competition (increased number and market share of new RU). Furthermore the overall competitiveness of the sector would increase and a modal shift from road transport will be induced. Improper use of state funds would be reduced, as well as, public funds (subsidising passenger transport services) being transferred to other line of business. Hence EU citizens will benefit of better public rail transport services.

Additional administrative costs to be borne both by the public authorities and by the business sector (IM and RU) compared to the baseline scenario, related to information requirements, are foreseen: "one-off" costs related to preliminary analysis to identify audit specifications (public sector) and to design tailor- made procedures to provide information to the auditor (business sector); "recurrent" costs are for the development of audit activities and reports (business sector) and for reinforcing operational structures of RB to manage the new task (public sector).

Modal shift from road to rail transport would generate an indirect effect on employment and working condition in the sector (additional workforce, in particular skilled personnel and staff prepared to be more mobile and to work abroad)

See section 5.1.2.3 above for the expected environmental benefits resulting from a potential modal shift from road to rail transport.

5.3.3.3. Policy option 2

Economic impacts under option 2 will be higher than under option 1, because the RB will be put in the position to control compliance with charging principles of the fee applied by IM (as a consequence of the increased quality in information provided). As a consequence large differences in fees applied in different EU countries would be reduced. The rail market will benefit from lower and more transparent infrastructure charges, which would enhance competition and competitiveness of rail transport against road transport.

Owing to the additional information obligation of option 2 compared to option 1 to provide cost accounting data in an aggregated and standardised common format, administrative costs are expected to be higher than in option 1: additional costs for the definition of "regulatory account" with recommended minimum data, for the design of the reporting process and deliverables and for reinforcing operational structures of RB to perform the new tasks (public authorities).

Social impacts are indirectly generated by the increase of the rail modal share. Under option 2, an expected shift of traffic from road to rail is higher than under option 1, hence the social impacts in terms of employment and improved working condition are expected to be higher than for option 1. The same applies to environmental impacts.

5.3.3.4. Policy option 3

Option 3 differs from option 2 for the introduction of a common detailed template for the submission of data and for the completeness of the cost accounting data that the IM has to provide to the RB. This will result in additional administrative costs both for the public authorities and for the business (due to the additional information obligation of option 3 compared to option 2 to provide cost accounting data in an aggregated and standardised common format), but this would not substantially increase the effectiveness of this option compared to option 2. Hence economic impacts (with the exception of administrative costs), social impacts and environmental impacts will be the same as with option 2.

*5.3.4. Conclusions and recommendations*

Option 2 is the most desirable because it will enable the RB to supervise the compliance of IMs and incumbent RUs account separation principles, so as to identify “unfair” behaviours (e.g. cross-transfers among lines of business, improper use of state funds, etc.). Moreover under this option the RB will be entitled to require cost accounting data in an aggregated and standardised format.

These two provisions together are considered to assure the condition for achieving the highest economic, social and environmental impacts at reasonable administrative costs.

Option 3 is as promising as option 2 in terms of expected economic, social and environmental impact. However, the administrative costs connected with the implementation of this option are considerably higher than the ones of option 2.

Finally, option 1 should not be considered because it cannot assure satisfactory economic, social and environmental impacts

## 5.4. Support to operators (RU) in case of discriminatory treatment – M25

For details please see Annex XI.

*5.4.1. Policy Options*

Four Policy Options have been preliminarily identified by the Commission for ensuring adequate support to operators in case of discriminatory treatment in access to service facilities.

Policy Option "Baseline" reflects the "state of the art" scenario. This scenario presumes no change in the existing legal framework. Policy Options 1, 2 and 3 foresee different solutions for clarifying procedures and ensuring fast resolution to discrimination issues (from least radical requirements of Policy Option 1 to most radical requirements of Policy Option 3). The following table illustrates the Policy Options 1, 2 and 3.

| Option 1 | Option 2 | Option 3 |
|---|---|---|
| Where necessary, issue recommendation to MS to empower their competition authority with the possibility to carry out emergency procedures in the context of dominant-position cases they can already adjudicate | Extend the scope of competences of regulatory bodies (which is broader than the scope of competences of competition authorities under competition law) to explicitly cover Decisions related to Annex II of Directive 2001/14 in order to be put in a position to effectively ensure non-discriminatory access to rail related services. | Extend the scope of competences of regulatory bodies (which is broader than the scope of competences of competition authorities under competition law) to explicitly cover Decisions related to Annex II of Directive 2001/14 in order to be put in a position to effectively ensure non-discriminatory access to rail related services. Include fast track emergency procedures which allow ex ante intervention. |

### *5.4.2. Baseline scenario*

Scenario of Policy Option "Baseline Scenario" reflects the 'Status Quo' or 'Business as usual' or 'Baseline' scenario.

This scenario presumes no change in the existing legal framework. The Commission would enforce existing Directives through the use of infringement procedures against Member States that implemented Community law incompletely and incorrectly. In particular, the Commission will ensure that, according to Directive 2001/14/EC Regulatory Bodies are established and fully operational. Regulatory Bodies will determine disputes against IM and RU related to discriminatory treatments, while competition authorities should intervene in case of disputes among RUs (in case of abuse of dominant position under competition law).

However, while Directive 2001/14/EC does not explicitly include provisions related to rail related services in the scope of the Regulatory Bodies, competition authorities require long and bureaucratic procedures to take decisions in cases of abuse of dominant positions, which are then further complicated by the lack of specific knowledge of the railway industry of the majority of competition authorities. In some cases, length of procedure is used as a market entrance barrier for new players[25]. Not all Member States foresee fast track procedures for complaints, which are however necessary to address issues of access to services which are vital for the market chances of new entrant operators, and in which urgent decisions must be taken. By contrast, directive 2001/14/EC foresees that regulators have to decide within two months after receipt of all necessary information. This provision was included in the directive, specifically taking account of the need for fast conflict resolution in the rail sector. In addition, in those cases in which competition procedures foresee fast track or emergency procedures, the burden of proof for the complainant to show the effect of a discriminatory practice on its business is very high. For example, Article 8 of Regulation 1/2003 ("Modernisation Regulation") on the European competition procedure, which serves as a model for many Member State competition procedures, requires as a condition for interim measures to be taken "urgency due to the risk of serious and irreparable damage to competition", a very high standard which is difficult to meet. Therefore, rail regulators are procedurally much better equipped to deal with urgent complaints on access to services.

[25] "Recast of the first rail freight package, Volume II: report", House of Lords, 2009

Another main argument for giving such additional powers to rail regulators is that competition authorities usually lack specific knowledge of the railway industry. In addition, competition authorities usually react to complaints, even where they have the legal possibility to act *ex officio* (which is not the case in all Member States). By contrast, rail regulators have a function of active market monitoring, according to the railway directives, and a right to start own initiative procedures. This is particularly important for the rail sector in which new entrant operators are faced with very powerful incumbents that also control the infrastructure. The new operators depend on the incumbents very strongly in their business, and for this reason often do not dare to make formal complaints. Only an active market monitoring and informal contact with operators, which only a specialised rail regulator will have, enables the regulator to deal with discrimination on access issues even when there are no formal complaints from operators.

Even when Regulatory Bodies are established and fully operational (with adequate resources allocated), and when competition authorities have gained enough market expertise, resulting in less discrimination, there will still be a certain amount of unmonitored or undetected discriminatory practises. When managers of service facilities are legally separated from incumbent RU, there is still a possibility of conflicts of interest and discriminatory treatment not falling under the definition of "abuse of dominant position" as described in the statutory scope of competition authorities. In these cases, RU may appeal to the Regulatory Bodies. However, the lack of clarity of Directive 2001/14/EC on the competences of RB referred disputes regarding rail related services has left room for different interpretations at national level. As a result, not all RB are empowered to intervene. Discrimination in access to and use of rail service facilities will limit internal market competition, affecting rail market opening. As a consequence, rail market growth would not realise its full potential.

### *5.4.3. Impact Analysis*

#### 5.4.3.1. Cause effect analysis

The introduction of emergency (fast track) procedures in the context of dominant-position cases that fall under the statutory scope of Competition authorities (option 1), will decrease the time required by new operators to get access to service facilities (or at least to receive more favourable treatment for the access and use of service facilities), thus reducing market entrance barriers and costs and creating the grounds for the development of business activities of new entrants, who in some cases could pay lower prices for the services due to the elimination of discriminatory pricing. However, a number of dominant position cases would remain, thus discrimination in the provision of rail related services will persist.

In the case of extension of the scope of competences of regulatory bodies explicitly to cover decisions related to Annex II of Directive 2001/14 (option 2) competition authorities will still have the power to intervene in cases of "dominant position abuses", but rail market players may appeal to the Regulatory Bodies in all cases where they feel discriminatory treatment has occurred. This measure will contribute effectively to reduce discrimination on rail related service matters, thus reducing market entrance barriers and creating the grounds for the development of business activities of new entrants.

Under the scenario above, the introduction of the possibility to use fast track procedures that will allow ex-ante intervention of Regulatory Bodies (option 3), could prevent discrimination, but might risk to over-regulate the market, by imposing decisions on situations in which any

player reported particular difficulties. As a consequence, the benefits generated by option 2 could be counterbalanced by distortion of the market.

5.4.3.2. Policy option 1

The removal of a market entrance barrier (long procedures of competition authorities) will create the grounds for the development of business activities of new entrants, with a positive impact on market competition and on operative costs of new entrant RU. Rail transport prices could decrease and quality of rail transport services provided could improve. In the long run it will contribute to a potential modal shift of traffic from road to rail.

Additional administrative costs to be borne exclusively by the public authorities compared to the baseline scenario, related to information requirements, are foreseen: “one-off” costs related to preliminary analysis to define the guidelines for the implementation of the measure and to clarify the scope of emergency procedures (public sector); “recurrent” costs for reinforcing existing operational structures of Competition Authorities in order to carry out the new task (public sector).

Potential modal shift from road to rail transport would generate an indirect effect on employment and working condition in the sector (additional workforce, in particular skilled personnel and staff prepared to be more mobile and to work abroad will be needed) as well as some positive environmental impacts. Benefits in the air quality could be obtained in terms of reductions of NOx and PM emissions. The impact on the climate change, estimated through the emission of CO2, could also be positive. Moreover, benefits due to the reduction of energy consumption could arise. By contrast, the modal shift may result in higher noise emissions (dis-benefits due to the increase of noise emissions are about 1/10 of the benefits achieved by reducing the emission of pollutants expressed as external costs).

Policy option 1 is expected to be less effective than policy options 2 and 3, because it will not cover the cases where managers of service facilities are legally separated by incumbent RU, but who still retain a conflict of interest. Therefore, the expected economic, social and environmental impacts will be lower than in the other ones.

5.4.3.3. Policy option 2

This option is expected to be more effective than option 1, since it will enable RB to intervene in all cases in which operators feel discriminated against and to supervise on all matters that concern rail related services (i.e. fees applied, etc.). Thus, option 2 is expected to be more effective than option 1 in ensuring that new entrants RUs will receive better and more equal treatment (like for incumbent RUs) in accessing and using service facilities. Hence option 2 is expected to be more effective in achieving positive economic impacts such as: improving rail market competition; diminishing operative costs of new entrants RUs; facilitating the entrance in the market on new RUs; allowing for developing of business on new entrant RUs; and, in the long run, enhancing a potential modal shift of traffic from road to rail.

Additional administrative costs to be borne esclusively by the public authorities compared to the baseline scenario, related to information requirements are foreseen: “one-off”: costs related to preliminary analysis to clearly define the “new” scope and competences of RB and to define the guidelines for the implementation of the measure and to clarify the scope of emergency procedures (public sector); “recurrent” costs for reinforcing existing operational structures of Regulatory Bodies in order to carry out the new task (public sector). Since the extension of the scope of the competences of the RBs will be larger than that of the

Competition Authorities "recurrent" additional administrative costs incurred are expected to be higher than in option 1.

Social impacts will be indirectly generated by the increase of the rail modal share. Under option 2, expected shift of traffic from road to rail is higher than under option 1, hence the social impacts in terms of employment and improved working condition are expected to be higher. The same applies to environmental impacts.

5.4.3.4. Policy option 3

Option 3 is more radical than option 2 because it foresees that Regulatory Bodies will also be empowered to act ex-ante to rule in the context of dominant-position cases. While this could prevent discrimination; it might also risk over-regulating the market by imposing decisions on situations in which no player reported particular difficulties. Therefore, it is likely that the potential additional benefits generated by this option in comparison to option 2 will be over counterbalanced by overrule and distortion of the market.

In addition administrative costs connected with the implementation of option 3 are clearly higher than the ones of option 2, since the new task to be performed by the RB will be enriched with "ex-ante" procedures.

*5.4.4. Conclusions and recommendations*

Option 2 should be preferred to option 1 since it will enable RB to intervene in all cases in which operators feel discriminated against and to supervise all matters that concern rail related services (i.e. fees applied, etc…).

Thus option 2 is expected to be the most effective in achieving the objectives and consequently in generating positive economic, social and environmental impacts.

Option 3 should not be considered, because there are relevant risks to overrule the market, imposing decisions on situations in which no player reported particular difficulties. In addition administrative costs of this option are higher than the ones of option 2.

## 5.5. Independence of Regulatory Bodies – M26

For details please see Annex XII.

*5.5.1. Policy Options*

Three Policy Options have been preliminarily identified by the Commission for ensuring independence of Regulatory Bodies. Policy Option "Baseline Scenario" reflects the "state of the art" scenario. This scenario presumes no change in the existing legal framework. Policy options 1 and 2 foresee different solutions for ensuring ownership independence of Regulatory Body from the IM and the RU. The following table illustrates the policy options 1 and 2.

| Option 1 | Option 2 |
|---|---|
| Make regulatory bodies at least independent in its organisation, funding decisions, legal structure and decision-making from any infrastructure manager, charging body, allocation body or applicant as well as the public authority that exercises the ownership rights over the incumbent railway undertaking**.** It shall furthermore be functionally independent from any competent authority involved in | Each Member State shall establish a single national regulatory body for the railway sector. This body shall be a stand alone authority which is legally distinct and independent in organisational, functional, hierarchical and decision making terms from any other public authority. |

| | |
|---|---|
| the award of a public service contract. | It shall also be independent in its organisation, funding decisions, legal structure and decision-making from any infrastructure manager, charging body, allocation body or applicant. It shall furthermore be functionally independent from any competent authority involved in the award of a public service contract. |

### *5.5.2. Baseline scenario*

Scenario of Policy Option "Baseline" reflects the 'State of the art' or 'Business as usual' or 'Baseline' scenario. This scenario presumes no change in the existing legal framework. The Commission would enforce existing Directives through the use of infringement procedures against Member States that implemented Community law incompletely and or incorrectly. In particular, the Commission will ensure that Regulatory Bodies are established according to according to Directive 2001/14/EC art. 30. This body, which can be the Ministry responsible for transport matters or any other body, shall be independent in its organisation, funding decisions, legal structure and decision-making from any infrastructure manager, charging body, allocation body or applicant. It shall furthermore be functionally independent from any competent authority involved in the award of a public service contract.

However, the lack of clarity of the role of the RB (appeal body, regulator, both) in the Directive and the poor implementation of the Directive generated unequal administrative capacity of Regulatory Bodies across EU. In addition, in some MS, RB is not fully operational because of a lack of qualified staff and other means and not complete independence from IM and incumbent RU[26].

The full implementation of the first railway package will ensure a proper implementation of Regulatory Bodies. This is expected to contribute to limit discriminatory behaviour . However, the Directive does not provide any measure on the ownership of the RB. The RB may in fact be part of the ministry of transport which, of course, is likely to own the infrastructure as well as, in certain member states, the incumbent RU.

A RB owned by the same organisation as the infrastructure and/or train operator cannot be independent. As a result, there still be a number of situations in which RB will not be in the appropriate position to ensure fair competition in the market. This will affect rail market opening and will limit possibilities for business development of new entrants. As a consequence, rail market growth will be lower than its potential.

### *5.5.3. Impact Analysis*

#### 5.5.3.1. Cause effect analysis

The introduction of ownership independence requirements between RB and incumbent RU will ensure full independence in the decisions taken by Regulatory Bodies.

Regulatory Bodies will be in the position to contrast discriminatory treatments, thus creating the grounds for fair competition in the rail market. Under this scenario, market entrance barriers for new operators will be reduced, and internal competition will increase.

[26] PwC Stakeholders consultation,2009

5.5.3.2. Policy option 1

Option 1 will put the Regulatory Body in the position to intervene in case of discrimination without any conflicts of interest. Hence, this measure can have an important role in removing a market entrance barrier (discrimination) by ensuring equal opportunity to all RUs. Furthermore, the application of this measure will ensure equal administrative capacity of Regulatory Bodies across EU. It is expected that new RU will enter the market and the modal share of new entrants RU will increase and fees applied to new entrants will decrease with a positive (decrease) impact on their operating costs.

As a consequence of increased competition and reduced operating costs for new entrants RU, rail transport prices could decrease and quality of rail transport services provided could improve. In the long run it will contribute to a potential modal shift of traffic from road to rail.

Additional administrative costs to be borne exclusively by the public sector compared to the baseline scenario, related to information requirements, are foreseen: “one-off” costs related to preliminary analysis to identify the legal and organisational solutions for RB, to the establishment of procedures with the aim of ensuring transparency of the functioning of RB and compliance with the independence requirements, to operational action plans; “recurrent” costs due to the need of additional flow of information between separated entities (i.e. reporting and notifications between competent authority, information to ensure transparency, etc.).

The potential modal shift from road to rail transport should generate an indirect effect on employment and working condition in the sector (additional workforce, need for skilled personnel and staff prepared to higher mobility and to work abroad) and some positive environmental impacts. See section 5.1.2.3 above for the possible environmental benefits resulting from the potential modal shift from road to rail transport.

5.5.3.3. Policy option 2

Option 2 is more radical than option 1 because it foresees that Regulatory Bodies will also have to be legally distinct and independent in organisational, functional, hierarchical and decision making terms from any other public authority.

There are no reason for thinking that with the implementation of this option the Regulatory Body will acquire further independence from the infrastructure manager and incumbent railway undertaking as compared to option 1. Hence, it is expected that economic, social and environmental impacts will be exactly the same as for option 1. MS shall establish a single (stand alone) national Regulatory Body. As a consequence there would be the need of “new” flow of information (i.e. reporting and notifications between competent authority, information to ensure transparency, etc.) and additional administrative costs for public authorities compared to option 1.

*5.5.4. Conclusions and recommendations*

Option 1 is the most desirable since it will assure satisfactory independence to all Regulatory Bodies among EU. This will result in positive economic, social and environmental impacts. Furthermore the administrative costs to be borne will be reasonable.

## 6. ANALYSIS OF IMPACTS OF THE WHOLE PACKAGE OF MODIFICATIONS

An impact assessment was also carried out on the whole package of modifications. A detailed description of the methodology and results of this impact analysis is found in Annex XIV. A summary is presented below.

### 6.1. Methodology

The methodology used for the assessment of impacts of the package of modifications involved a quantitative regression analysis.

First the availability of quantitative data for **indicators** relevant to the assessment was ascertained. The baseline scenario for the assessment is represented through the **indicator** variations which are expected to occur in the case of no further EU action. The **indicators** were analysed in order to highlight statistical correlations. From this process the indicator that emerged as the best available to represent the degree of market opening in EU countries is the "LIB index", defined in the report “Rail Liberalisation Index 2007” by IBM.

A detailed cause-effect analysis was then carried out in order to identify impacts. The **effects** of the proposed package of modifications (i.e. the **causes**) on the removal of **barriers** to market opening and development were identified.

In turn, one of the **direct impacts**, namely the variation of rail-freight modal share, was recognised to cause other **indirect impacts**, that is: administrative costs (partly), number of transport related fatalities, employment, external costs for air pollution, noise, climate change, energy consumption.

At the end of this exercise all the relevant impacts had been identified and the distinction of quantitative/qualitative and direct/indirect impacts was accomplished.

**Uncertainties of the model**

The uncertainties associated with this model were evaluated through a sensitivity analysis which shows that the results of the impact assessment are not particularly sensitive to the main sources (baseline data, assumptions on the effectiveness of the proposed modifications in removing barriers, use of mathematical model).

Assuming the correctness of the available data, there is some positive correlation of variations in operating costs with market opening – however other non-investigated factors have a greater influence on this impact and therefore the quantitative estimate cannot be taken to be extremely reliable.

### 6.2. Economic impacts

In terms of **competition**, implementation of the package of modifications will have a slight impact on freight modal share, leading to a stabilisation (above 16%) or earlier inversion of the baseline negative trend.

As regards new entrants, the modifications proposed in the package should be capable of generating up to 3-4% more new RUs and up to 2-3% more market share for non-incumbents. From a **quality** point of view, fatalities in road freight transport would be avoided but there would be a low or very low correlation between market opening and punctuality. Finally, operating costs could be reduced by about 6%.

### 6.3. Administrative cost

The implementation of the package of modifications overall, and in particular the new requirements for publication for MS, infrastructure managers, managers of terminals and licensing bodies, would imply additional costs for these specific stakeholders. These costs relate to the organisation, planning, development and management of specific programmes, action plans, procedures, and/or structures required by the new legal framework. A number of these costs have been detailed in the preceding section which analyses the impacts of the 5 new measures.

It should be noted that the assumptions retained for the calculation of administrative costs might have led to overestimations. This is in particular the case for measures which make existing requirements clearer and/or formalise what rail market players normally do. For instance, it is most likely that the administrative burden related to the obligation to present network statements in a second official language is lower than estimated since the vast majority of infrastructure managers already translate such document in English and that annual changes are normally limited and related to figures updating.

**Summary of administrative costs** (in Million €)

| | Public authorities (in particular Ministries, RB, Licensing bodies) | | Business (including infrastructure managers and operators of service facility) | |
|---|---|---|---|---|
| | One off | Recurrent | One off | Recurrent |
| For the 5 new measures analysed above in Section 5 (M2, M3, M16, M25 and M26) | 2.86 | 9.06 | 0..25 | 0.15 |
| For the 4 new measures subject to a separate IA mentioned in Section 4..2 (M17to20) | 4.46 | 3.33 | 4.28 | 1.19 |
| For the 17 clarification measures mentioned in Section 4.1 | 4.07 | 3.87 | 14.44 | 10.55 |
| Total | 11.39 | 16.26 | 18.97 | 11.89 |

Disaggregated data for all 26 measures are provided in Annex XIII.

Two types of administrative cost have been identified and presented in Annex XIII: **one-off administrative costs**, defined as start up-cost or costs incurred when re-designing the way administrative obligation or specific action are met; and **recurrent administrative costs**, defined as annual costs.

The administrative costs primarily consist of new requirements for publication for MS, infrastructure managers, managers of terminals and licensing bodies as follow: MS with regard to the framework for charging rules and the medium long term development strategy, IMs with regard to further information to be provided in the network statement, terminal managers with regard to access conditions (prices and use) to service facilities and licensing bodies with regard to conditions to grant licenses. A majority of recurrent costs would be borne by public authorities (16.23 M€) and the remaining part (11.89M€) by private entities

(infrastructure managers and operators of service facilities) operating in a situation of natural monopoly or dominant position.

Transport service providers (RU) should not bear additional administrative costs and, on the contrary, they should be the main beneficiaries of these measures with easier cheaper access to the infrastructure as well as from lower operating costs (as mentioned in Section 6.3).

### 6.4. Social impacts

As regards **employment**, implementation of the Package would have an impact, representing over 1.700.000 additional working hours equal to more than 1.000 additional workers. The modal shift from road to rail results in a slight decrease of employment in road transport. There would be general demand for more skilled personnel and a higher demand for training centres.

### 6.5. Environmental impacts

It is expected that the implementation of the modifications will provide benefits in **air quality** (about 4.500t less of NOx and 100t less of PM in 2018). The package may be disadvantageous in terms of **noise emissions** due to increased traffic (with additional external costs for noise emissions of about 0.2 M€ by 2018). But this would be off-set by noise-abatement measures. The impact on the **climate change**, estimated through the emission of CO2, should follow a similar trend as that on the air quality (about 530kt of CO2 saved). Benefits due to the reduction of **energy consumption** are expected to have their maximum effect (120 M€ of energy consumption costs saved) in the year of full implementation of the Package of modifications and then decrease slightly.

### 6.6. Sensitivity analysis

A sensitivity analysis was carried out in order to determine the effects of major uncertainties in the inputs of the quantitative impact analysis on the results.

The sensitivity to variations in the baseline scenario of the modal share of rail in freight transport was determined so as to take into account the potential effects of the Greening Transport Package[27] (notably the revision of the directive on road infrastructure charging) and the proposal for a Regulation on a European network for competitive freight[28].

The main uncertainties connected with the quantification of the impacts of the proposed modifications are related to:

– baseline data – these are taken from historical data, and projections over the time-frame of the study are made based on past EC work (e.g. Energy Transport and Trends to 2030) and on other literature (e.g. IBM “LIB” reports);

– the assumptions on the effectiveness of the proposed modifications in removing barriers connected with market opening and development;

– all data related to average operating costs for Railway Undertakings; these deserve special mention since the potential savings deriving from reduction of operating costs are high;

– the use of a mathematical model, which inevitably simplifies reality.

[27] COM(2008)433 final.
[28] COM(2007)608 final.

**Summary of impacts for the whole package of 26 modifications**

| Category | Type of impact | Sub-Type of impact | |
|---|---|---|---|
| Economic | Competition and opening of the rail market | Modal share of rail transport | Stabilisation at 2015-2016 levels (around 16%) |
| | | New entrants in the rail freight market | + 3-4% |
| | | Market share of new entrants in the rail freight market | + 2-3% |
| | Cost of transport | Average operating costs for Railway Undertakings | - 6% |
| | Administrative costs | Administrative costs for the EU and Member States and for the railway sector | close to 28M€/year |
| Social | Employment | Employment within the rail industry | 1.7 M working hours |
| | Working conditions | Education and mobility of workers in the rail sector | Increased |
| Environmental | Environmental | Local air quality | up to 4.500t of NOx and 100t of PM saved per year |
| | | Noise emissions | 0.2M€ of additional external cost |
| | | Climate change | up to 530kt of CO2 saved |
| | | Energy consumption | Up to 120M€ of energy consumption saved |

## 7. DELIVERY MECHANISMS

The package of modifications could be delivered either as a regulation or a directive (or a combination of both).

Directives should, as far as possible, be general in nature and cover the objectives, periods of validity and essential aspects of legislation, while technicalities and details should be a matter of executive measures or be left to Member States. While directives offer flexibility to Member States, their disadvantage is that they risk resulting in a diversity of more or less incompatible measures being implemented in different Member States.

Regulations specify the use of certain practices, technologies, or designs. The advantage is relative ease of monitoring and enforcement. The disadvantages are that they are likely to be less cost-effective and they do not encourage innovation or to go beyond standards.

As regards the horizontal objective of simplification, a directive would represent a substantial advantage for MS as no new legal regime would come into force and existing legislation could be easily adapted to accommodate new provisions and structure. As regards the horizontal objective of clarification, both a directive and a regulation would contribute to the objective effectively. As regards the horizontal objective of modernisation, a regulation would

be more suitable for the market as it would address actors directly. The role of MS would be confined to areas of MS competence and the new and strengthened provisions would be applied evenly and uniformly.

A regulation and a directive would have different degrees of effectiveness on realising the full benefit of the modifications when implemented. Since a quantitative estimation of the degree of effectiveness is not possible, a qualitative assessment was carried out, modification by modification, to determine the delivery mechanisms' relative effectiveness.

A directive would take into consideration existing national differences in rail markets (relevant, for example, in the application of M3 – the "use it or lease it" rule), national legislation (relevant in terms of rules related to the exchange of information by regulatory bodies) and differences in cost accounting (tailor made transposition would be possible) and therefore it was found to have a slightly higher cumulative degree of effectiveness on realising the full benefit of all modifications than a regulation.

# 8. MONITORING AND EVALUATION

## 8.1. Core monitoring indicators

The table below shows the indicators identified within the context of the recast.

*Table of indicators*

| General Objective | Type of indicator | Indicator (per annum) |
|---|---|---|
| Facilitate market entry and competition | Impact | • N° of NE-RU per MS |
| | Impact | • HHI for the national rail markets |
| | Results | • N° of complaints to RB or to CA |
| | Results | • Price for market segments (€) |
| | Results | • Time required for procedures (path allocation, allocation of rolling stocks, licensing) (working days) |
| | Results | • N° of international paths |
| Develop efficiency and performance of rail market | Impact | • Modal share of rail (%) |
| | Results | • Total investments in rolling stock and infrastructure (€) |
| | Output | • Investments/State aids in euros |
| | Output | • “Total revenues (including state aids)/Operating costs” Ratio (€) |
| | Context | • ROE of RUs and IMs (%) |
| | Results | • % of trains on time and % of cancelled trains |
| | Impact | • N° of accidents |

## 8.2. Monitoring and evaluation arrangements

In order to establish an indicator system, it is necessary to involve all stakeholders in the sector. Information that is already available by way of the existing monitoring systems should be used, while also clarifying what additional, new indicators should be established in order to better meet information needs. The potential users of information are the stakeholders who

have their own areas of responsibility and, therefore, distinctive information needs. The following table shows the main suppliers of information that should be involved in the monitoring process.

*Data sources*

| Type of supplier | Supplier of information |
|---|---|
| Public Body | European Commission, Member States, Ministries of Transport, Regulatory Bodies, Competition Authorities |
| Managing Authority | Rail Infrastructure Managers |
| Transport and logistics operators | Railway Undertakings, Private Wagon Owners, Forwarders, Logistics Platform Managers |
| Wider public, including civic organisations | Association of Passengers, Unions, Freight Customers Associations |

Since implementation of the initiative depends on the joint efforts of the Member States, it is crucial that the monitoring systems of these States are harmonised so they can be integrated to obtain an overall vision. It is therefore important that the reporting packages have the same features in terms of data collection, structure, timing and control procedures and efforts must be undertaken to enhance the level of efficiency in transmitting and exchanging reports.

Monitoring control is already foreseen through M13 and related costs have been included in the assessment of administrative costs in this report. Since most indicators suggested are currently under monitoring by the Rail Market Monitoring Scheme (RMMS)[29], the monitoring of the initiative could be carried out within RMMS. Annex XVI includes the most recent RMMS questionnaire to stakeholders and illustrates the array of indicators being monitored.

[29] See European Communication COM(2007)609 final

## ANNEX I: PREVIOUS STUDIES

– Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the implementation of the first railway package[30];

– SERVRAIL – An assessment of present and likely future conditions of providing rail-related services, December 2006 (Steer Davies Gleave)[31];

– Communication of the Commission to the European Parliament and the Council "Towards a rail network giving priority to freight"[32];

– Communication of the Commission to the European Parliament and the Council on monitoring development of the rail market[33];

– Communication from the Commission to the European Parliament and the Council - Rail noise abatement measures addressing the existing fleet [34];

– Communication from the Commission to the Council and the European Parliament - Multi-annual contracts for rail infrastructure quality[35];

– Impact Assessment Report accompanying the Communication from the Commission to the European Parliament and the Council on Rail noise abatement measures addressing the existing fleet[36];

– Impact Assessment Report accompanying the Proposal for a Regulation of the European Parliament and of the Council concerning a European rail network for competitive freight[37];

– Impact Assessment Report accompanying the Communication from the Commission to the Council and the European Parliament - Multi-annual contracts for rail infrastructure quality38.

30 COM(2006)189 final.
31 http://ec.europa.eu/transport/rail/studies/doc/servrail_final_report.pdf.
32 COM(2007)608 final.
33 COM(2007)609.
34 COM(2008)432 final.
35 COM(2008)54 final.
36 SEC(2008)2204.
37 SEC(2008)3029.
38 SEC(2008)132 final.

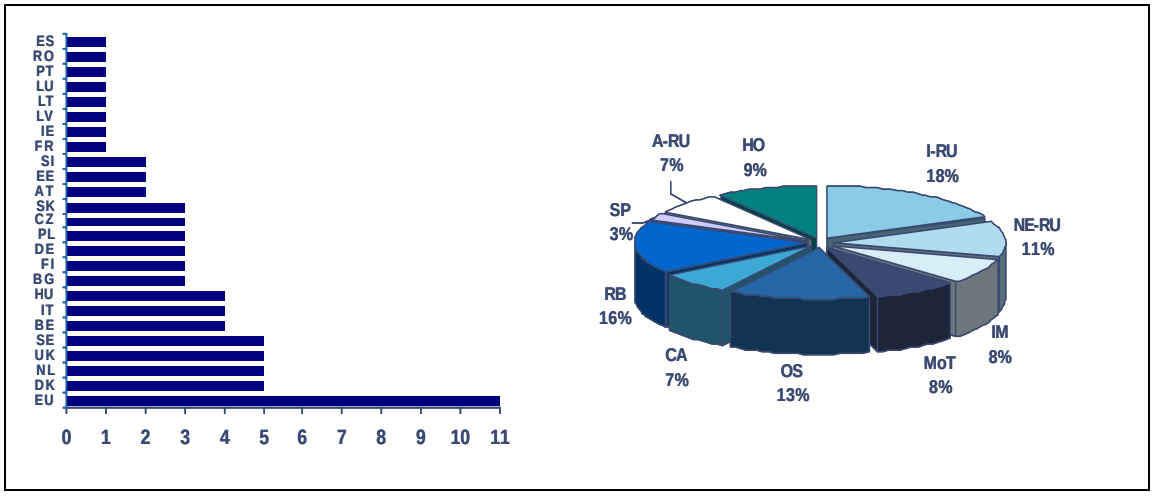
## ANNEX II: PUBLIC CONSULTATION – STAKEHOLDERS

Initially, almost 380 stakeholders from EU-25 (EU-27 excluding Cyprus and Malta which have no railway) were identified as being involved and potentially affected by the modifications being assessed.

These stakeholders can be categorised in four groups: authorities (rail regulatory bodies, competition authorities and ministries of transport), infrastructure managers, railway undertakings (including incumbents and newcomers) and other stakeholders (railway manufacturers, wagon keeper and rail car leasing companies, terminal operators, maintenance workshop operators and other providers of rail related services, customer and rail passenger organisations, railway workers' organisations).

In October 2008 stakeholders were sent a questionnaire concerning barriers hindering the opening of the rail transport market, areas of the EU legislative framework that could be improved to facilitate rail market opening and to ensure the development of rail related services, modifications considered by stakeholders to be the most important and measures already being applied. Of almost 380 questionnaires sent, 75 completed questionnaires were returned. The answers represent an exhaustive sample and a good cross-section of stakeholders from almost all MS.

*Figure 1: Distribution of all 75 answers by MSs and type of stakeholder*




*Source: PwC (2008)*

On 7 November 2008 a workshop was organised for stakeholders to share preliminary results obtained in the analysis of completed questionnaires and to obtain feedback on these findings. The workshop also sought to explore the pros and cons of delivering specific modifications through soft law. In order to further develop certain key topics discussed at the workshop and identified in the questionnaire results, several stakeholders were interviewed individually by telephone. In addition, the Commission held bilateral meetings with numerous associations from the rail sector in order to hear their view.

All feedback made by way of the questionnaire, the workshop and by telephone was analysed in detail and contributed to the definition of modifications and the analysis of impacts. An

overview of the results of the public consultation is included below and is also available at: http://ec.europa.eu/transport/rail/consultations/index_en.htm. The comprehensive consultation process described above meets the Commission's minimum standards for public consultation.

The following summarises the main findings of the stakeholders' consultation.

Overall, stakeholders consider the following barriers which hinder the opening of the rail market and the development of rail related services as *major*: discrimination in access to rail related services, the differing levels of implementation of rail access legislation in MS, lengthy and non-transparent procedures for railway licenses, safety certificates and homologation of rolling stock, the insufficient administrative capacity/powers of RBs and their lack of independence, the weak financial situation of RUs, the low quality of infrastructure and a lack of technical harmonisation (considered an obstacle to the development of the rail market but not to its opening), the lack of investment in railway infrastructure and equipment, the failure of some MS to fully separate ownership of IM and RUs, the abuse of dominant position (in terms of energy and pricing) and, as a consequence of other obstacles, the high prices for new entrants.

The consultation revealed that overall stakeholders rank the following areas of improvement to EU rail access legislation as highly desirable: non discriminatory access to service facilities, transparency on the functioning of the rail market's institutional framework, incentives for sound and sustainable financing of the railway system and the independence and competencies of RBs.

***Stakeholders Consultation – Overview***

**1)** Objectives

In order to perform the assigned study for the impact assessment of the recast of the 1st railway package, a stakeholder consultation was carried out.

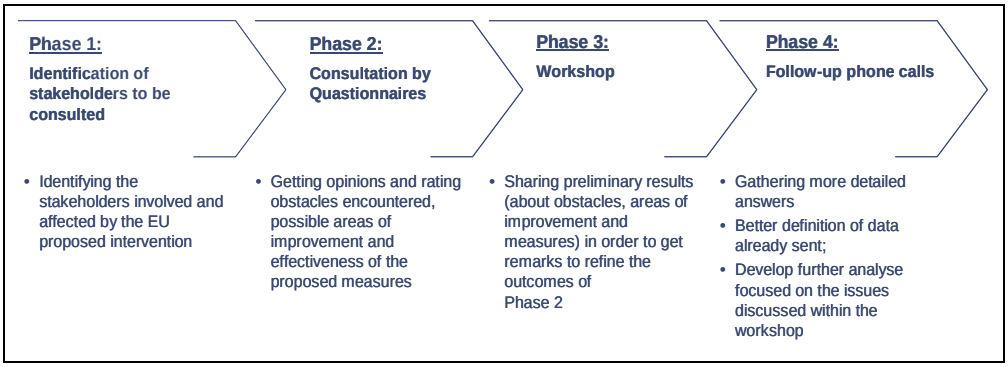
The objectives of the consultation:

- fine-tuning the problem analysis:
  - identification of specific obstacles that hinder the full opening of the international rail market and the development of rail related services;
  - identification of areas of the EU legislative framework to be improved in order to ensure the full opening of the rail market and in order to foster the development of rail related services;
- getting opinions on the effectiveness of the modifications proposed to reach the related objectives;
- checking the willingness of stakeholders to adopt specific modifications;
- fulfilling the baseline scenario by mapping the modifications already implemented in MSs; gathering quantitative data not publicly available and/or hard to find in literature.

**a.** Stakeholders Consultation phases

The consultation was structured in four phases, as shown by the following figure:

*Figure 2: The Stakeholders Consultation Action Plan*




Each phase is explained in the following paragraphs.

Phase 1. Identification of stakeholders to be consulted

According with the Commission requirements, the consultation process involved the following categories of stakeholders, categorized in the following 4 groups:

1. Authorities: Rail regulatory bodies, Competition authorities and Ministries of Transport;

2. Infrastructure Managers;

3. Railway undertakings, including incumbents and newcomers;

4. Other stakeholders: Railway manufacturers, Wagon keeper and rail car leasing companies, Terminal operators, Operators of maintenance workshops and other providers of rail related services, Customer and rail passenger organizations, Railway workers' organisations.

Almost 380 stakeholders from EU-25 (EU-27 with the elimination of Cyprus and Malta that have no railway) were involved in the process.

Phase 2 – Consultation by Questionnaire

The first approach with the stakeholders was to consult them trough a Questionnaire sent via email.

Aim of this phase was to obtain basic information for the Impact Assessment study, in particular:

- to complete the problem analysis;

- to get opinions on the effectiveness of each modification proposed to reach the related objectives;

- to fulfil the baseline scenario;

- to get preliminary information on specific impacts of the proposed modifications.

In order to achieve such objectives, the questionnaire was structured in four sections focused on obstacles hindering the opening of rail transport market, area of the EU legislative framework that could be improved to facilitate rail market opening and to ensure the development of rail related services, and the identification of most important modifications and of modifications already applied.

*Answers received*

Out of almost 380 questionnaire sent, we received 73 answers. The answers represent an exhausted sample of the stakeholder from almost all Member States (contributions came from all EU Member States involved in the consultation process, except Luxemburg and Greece). Thus, 95% of the European railway traffic is represented in relation to km of tracks.

The following table presents a synthesis of the distribution of the total number of questionnaire received by the 10 different stakeholder clusters involved in the consultation.

*Table 1: Distribution by type of stakeholder's involvement*

| | Cluster | Questionnaires received |
|---|---|---|
| I-RU | Incumbent Railway Undertaking | 14 |
| NE-RU | New Entrant Railway Undertaking | 8 |
| IM | Infrastructure Manager | 6 |
| MoT | Ministry of Transport | 6 |
| OS | Other Stakeholders[39] | 10 |
| CA | Competition Authority | 5 |
| RB | Regulatory Bodies | 12 |
| SP | Service Provider | 2 |
| A-RU | Association of Railway Undertakings | 5 |
| HO | Holding Company | 7 |
| | TOT | 75 |

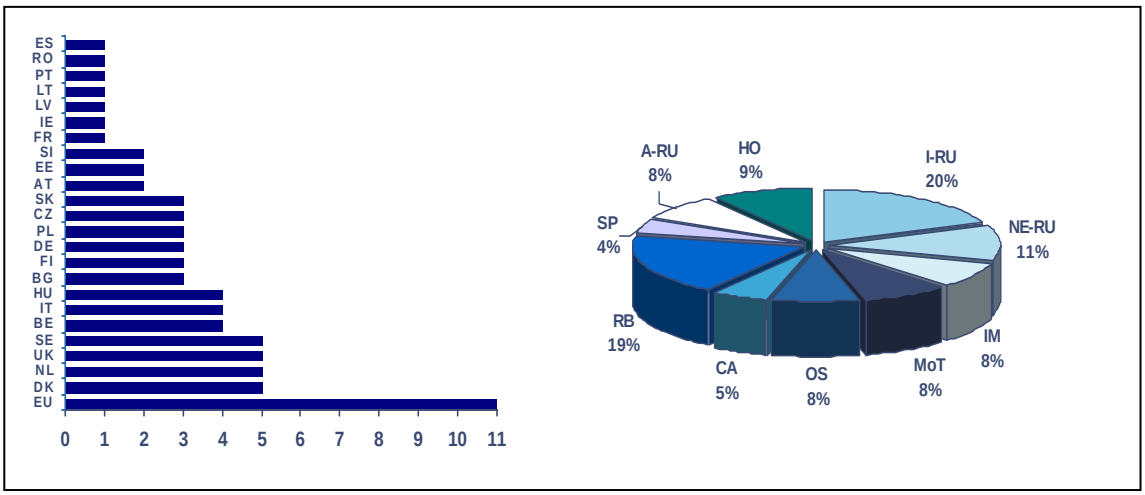
*Source: PwC elaboration (2008)*

In particular, 16% of the answers were received by Regulatory Bodies and 29% by the Railway Undertakings (composed by 18 % of Incumbents and 11 % of new Entrants).

The following figure shows the distribution of different answers by Member States and by clusters of the stakeholders.

[39] This cluster includes: Capacity allocators, Railway manufacturers; Wagon keeper and rail car leasing companies; Terminal operators; Operators of maintenance workshops and other providers of rail related services; Customer and rail passenger organisations; Railway workers' organisations.

*Figure 3: Distribution of all 75 answers by MSs and type of stakeholder*




*Source: PwC elaboration (2008)*

As it could be inferred from the figures presented before, the feedbacks are representative of the wide-ranking of stakeholder's clusters and represent almost all Member States. Filled questionnaires were received from each cluster considered and at least each cluster was represented by a MS.

Phase 3 - Workshop

The main purposes of the workshop were:

- to share with the stakeholders the preliminary results obtained with the analysis of the questionnaires reported in the previous paragraph and get feedback s comments and remarks;

- to check with the representatives of the industry the pros and cons of delivering specific modifications through soft law.

In other words, the aim of the workshop was to fine tune the results obtained with the analysis of the answered received through the questionnaires.

The workshop was structured in two sessions.

*Part I – Results of the analysis of questionnaires*

The purpose of this part of the workshop was essentially to get feedback, remarks and comments on the results of the analysis of the questionnaires concerning the ranking of obstacles that hinder the full opening of the rail market, on the areas of the EU legislative framework that could be improved in order to facilitate market entry and on the importance of implementing the modifications proposed in order to reach the related objectives.

Preliminary results of the analysis were presented so to:

- give evidence of main obstacles to rail market opening reported by the different countries (including obstacles that were not listed in the questionnaire, but were added by the stakeholders);

- give evidence of main areas in which, according to the results of the questionnaires, the EU rail legislative framework should be improved in order to ensure the opening of the market and the development of rail related services(including areas that were not listed in the questionnaire, but were added by the stakeholders);

- highlight modifications that resulted to be already implemented by each country;

- report the modifications that resulted to be more important to reach the specified objectives;

- highlight additional modifications that had been reported as very important to achieve the proposed objectives even if not originally listed in the questionnaire.

During the workshop stakeholders were required to provide feedbacks on:

- *Obstacles:*

  - the ranking (Major, Minor) given to the obstacles;

  - the effect of the full implementation of the first railway package on the listed obstacles (complete removal, partial removal, no effect).

- *Areas of Improvement:*

  - the ranking (Very Desirable, Desirable) given to the areas of improvement;

  - the effect of the full implementation of the first railway package on the listed areas of improvement (complete improvement, partial improvement, no effect).

- *Modifications:*

  - the ranking (Very Important, Important, Less Important) given to the modifications;

  - the effect of the full implementation of the first railway package on the listed areas of improvement (complete improvement, partial improvement, no effect);

  - the Pros and Cons related to the possibility to deliver the following rules through soft law (voluntary approach).

During the workshop a discussion on the topics above took place. Stakeholders were invited to send additional comments by email making use of template for response distributed during the workshop.

*Part II – Impact Analysis*
The purpose of this part of the workshop was essentially to provide the stakeholders with the methodology that will be adopted for the Impact Analysis and to explain how their contributions will be used in the Analysis.

Phase 4. Follow-up phone calls

In order to develop in further details contributions and remarks on the main topics discussed at the workshop and on the preliminary results of the questionnaires, several stakeholder, who asked for it at the end of the workshop, have been interviewed in one-to-one call meeting.

All the contributes, feedbacks, remarks pointed out through questionnaires, workshop and phone calls have been analysed in detail and considered as an important starting point for fine-tuning the problem analysis and for the analysis of the impacts.

Next paragraphs present findings of the stakeholder consultation process.

**b.** Result of the stakeholder consultation

This section reports a synthesis of the main results of the stakeholder consultation process in relation to the obstacle, area of improvement and modifications identified.

Synthesis of the main results: Obstacles

The table below reports the average position of stakeholders (major/minor ranking) on obstacles that hinder the opening of the market and the development of rail related services. Obstacles highlighted in yellow resulted to be major obstacles for the development of the rail market itself more than specifically related to market opening and development of the rail related services. The results have been used to refine the problem analysis.

*Table 2: Ranking and Comments on Obstacles gathered*

| Obstacle | Ranking | Comments from Stakeholders |
|---|---|---|
| Discrimination in access to rail related services (e.g. in terminals, shunting yards, rolling stock maintenance, etc.). | Major | ▪ D. 2001/14/EC guarantees non-discriminatory access if there is no viable market alternative. This has to be implemented in all MSs, thus this obstacle seems to be partially due to the not complete implementation of the 1st railway package. Thus, obstacle's intensity varies from MS level of the 1st RP implementation and how such implementation is tackled by responsible bodies. It is not a major obstacle in all EU MSs.<br>▪ Access conditions are not transparent (i.e. description of infrastructure).<br>▪ Need easy open access to tracks, last mile and terminals and essential services therein. |
| The different level of implementation of the first railway package in MSs | Major | ▪ 1st RP is not mandatory extensive enough.<br>▪ In several MSs, in particular functioning RBs still have to be established.<br>▪ This is a very important obstacle. However, 1st RP not enough to create fully liberalised market.<br>▪ This obstacle is due to too much freedom of interpretation of directives' provisions allowed to MSs. |
| Insufficient administrative capacity/powers of RBs and lack of independence | Major | ▪ RBs need a harmonised job description and prescribed legal powers. Their partly non-independence, lack of resources and ex-post-interventions are a serious obstacle for the development of fair and non-discriminatory market access.<br>▪ This is partially an implementation problem. However, RB need more powers even beyond the 1st RP – and these must be consistent across EU.<br>▪ RBs must be put into place in each MS and be administratively and legally able to fulfil the functions that are foreseen for them in the 1st RP. |
| Weak financial situation of RUs in particular in the "new" MSs | Major | ▪ The weak financial situation is a problem of RU in new MS as well as in EU 15 and concerns incumbent RU as well as new entrants.<br>▪ The weak financial situation of incumbent RU is a consequence of not complete implementation of the 1st railway package.<br>▪ RU incumbents should be sold to private sector without state aids. Definitely no state aids to RUs.<br>▪ The weak financial situation of RU is more a problem for the development of the rail market itself than for the opening of the market. |
| Low infrastructure quality | Major | ▪ Major Obstacle for the development of the rail market. No obstacle to the opening of the market<br>▪ Trains will go slower – not so much of a problem for freight. |
| Lack of technical harmonization | Major | ▪ The lack of technical (and operational) harmonisation hinders the opening of the market because it causes serious hurdles for cross border operations and it limits the usage and the cross acceptance of rolling stock on the different networks.<br>▪ Technical harmonization is needed to achieve interoperability of the European railway system and |

| Obstacle | Ranking | Comments from Stakeholders |
|---|---|---|
| | | the development of rail services across Europe. This one is under development by the definition and implementation of Technical Specifications for Interoperability (TSIs). Another type of technical harmonization is also useful for the development of the interchangeability of rail products, which requires some kind of standardization on a voluntary basis. But the latter should not prevent innovation through mandatory application.<br>▪ Used as a market entry obstacle for passenger services, prevents NE-RUs from entering the market, using knowledge, resources or assets they have obtained.<br>▪ Cross acceptance of rolling stock is of major importance. TSIs on rolling stock should have first priority.<br>▪ Having MS safety and tech rules as well as EU ones TSI allow I-RUs to put technical barriers to NE-RUs through their owner governments. |
| Lack of investment in railway infrastructure and equipment | Major | ▪ The low infrastructure quality will inevitably affect the overall quality of services, which in turn will affect negatively the rail market share when compared to competing modes (for which infrastructure is highly supported).<br>▪ For private RU this is due to lack of opening.<br>▪ Infrastructure – major; Equipment – minor.<br>▪ Infrastructure funded through multi annual contracts – could also have state aids provided complies. with 1st RP and state aids rules – including separation from RUs.<br>▪ Equipment should not get state aids – it can be leased. |
| Failure of some MSs to fully separate ownership of IM and RUs | Major | ▪ Most of investment problems stem from influence of holding of integrated company, also problems with Chinese wall, i.e. confidentiality of planning and commercial data at the Infrastructure part.<br>▪ If the 1RP is properly implemented, the objectives sought by the legislation should be implemented whatever the form of separation. The Directive set 'objectives' to be attained and MS are free to implement them in the most appropriate way. Full separation is not required in EU legislation so there cannot be any failure from MS on this point. |
| Abuse of dominant position | Major | ▪ Major problem: Energy (only one energy supplier useable).<br>▪ This issue can be tackled by existing legislation: railway and competition law. The existing law needs to be properly implemented and consequently applied. |
| Long and intransparent procedures for railway licences, as well as for safety certificates and homologation of rolling stock | Major | ▪ Licensing: Staff, locos, rolling stock; major market obstacle; not transparent, no time-frame, deadlines imposed.<br>▪ Needed an EU-wide process.<br>▪ Any cases of distorted competition can be properly tackled by CAs.<br>▪ This problem can be partially removed by the full implementation of the 1st and 2nd packages. Must be However, Text in 1RP not extensive and stringent enough. Obligations for Member Sates not clear, time frames missing. |
| Insufficient harmonisation of principles and procedures (i.e. track access, charging scheme) at international level | Minor | ▪ The harmonization of principles and procedures relating to track access and charging schemes is much more complex than it may appear. In practice, the degree of public support for infrastructure will have a direct impact on the level of track access charges. For the rail sector to be able to compete with road, track access charges must remain flexible throughout Europe in order to reflect the differences between member states in the market. In the new Member States, for example, public authorities do not in general finance infrastructure, therefore IMs are obliged to apply very high charges. The question of insufficient harmonization of principles and procedures will therefore relate to these specific situations that drastically affect the level of track access charges. The question of a unified method of calculation does not appear therefore to be the solution to this problem. Moreover, it appears highly unrealistic in the present situation.<br>▪ Transparency is more important than harmonisation. |
| Lack of competences of RBs related to international rail services | Minor | ▪ This problem can be solved by the full implementation of the 1sr railway package. |
| Difficult access to RB | Minor | ▪ This problem can be solved by the full implementation of the 1sr railway package. |
| Higher prices for New entrants | Minor | ▪ This obstacle is a consequence of the other obstacles. Due to higher number of obstacles and variety of problems, investment burden and financial consequences are higher for new entrants. |

| Obstacle | Ranking | Comments from Stakeholders |
|---|---|---|
| Different track access agreements in each country | Minor | ▪ Guidelines would help removing the problem. |

*Source: Questionnaires, workshop and call follow-up (2008)*

Synthesis of the main results: Areas of Improvement

The table below reports the average position of stakeholders (very desirable/desirable ranking) on areas of the EU rail legislative framework that could be improved in order to facilitate market opening and to boost the development of rail related services. The results have been used to refine the problem analysis.

*Table 3: Ranking and Comments on Areas of Improvement gathered*

| Area of Improvement | Ranking[40] | Comments from Stakeholders |
|---|---|---|
| Non discriminatory access to service facilities (e.g. terminals, maintenance workshops, shunting and marshalling yards, etc.) | Very Desirable | ▪ Enhance the definition of "Rail-Related Services" and make the pricing of these, when provided by a nationally or locally dominant competing operator, the subject of price regulation<br>▪ Larger number of services to be covered, than those listed in the Directive 2001/14/EC.<br>▪ Regulation of access to RRS is only necessary in monopolistic bottlenecks. This is provided by current legislation in D. 2001/14/EC. Further legislation would be counter-productive and hamper investments and market development. Implementation of the 1RP is a good step forward and should produce all expected results. Should certain obstacles remain in the coming 4-5 years; stakeholders will have better ideas on how to tackle them.<br>▪ Need more regulations EU-wide to avoid some RUs wriggling out of obligations and commitments, and need full list of services on which open access applies. |
| Transparency on the functioning of the institutional framework on rail market | Very Desirable | ▪ The Rail Market Monitoring Scheme (RMMS) was set up by the Commission to enhance transparency on the rail market.<br>▪ There is absolutely a need for transparency, which may be complied with through appropriate actions taken by the RMMS settled by the 1st Railway Package. |
| Incentives for sound and sustainable financing of railway system | Very Desirable | ▪ A stable financial architecture is essential for the proper development of the sector, particularly in new EU Member States<br>▪ Multi-annual contracts should be implemented in the MSs.<br>▪ IMs should be provided with multi-annual contracts, incentives to become more efficient.<br>▪ RUs incumbents should be sold off rather than given state aids legislation and them<br>▪ Urgent to implement article 6 of Directive 2001/14. Need to secure conclusion of MACs |
| Independence and competencies of Regulatory Bodies | Very Desirable | ▪ Key objective of a Regulatory Body is to ensure fair and non-discriminatory access to the rail network and to services. Therefore, the structural weaknesses of the RBs in many Member States should be addressed as a matter of the highest importance in the framework of the recast.<br>▪ Regulatory Bodies need to be independent and competent, but their responsibility must remain limited to the European railway system and not interfere with the non-interoperable rail systems. The inter-relation between the rail and non-rail regulation needs to be clarified (especially between the railway packages and the PRR regulation, and between the rail legislation and the PSR Regulation).<br>▪ Several MSs have not implemented the requirements laid down in D. 2001/14/EC. Whether the |

[40] Ranking from Questionnaires/Workshop

| Area of Improvement | Ranking[40] | Comments from Stakeholders |
|---|---|---|
| | | administrative powers called for by European legislation are sufficient can only be evaluated after the complete implementation in all MSs. |
| Rules between infrastructure manager and railway undertaking to allocate responsibility in case of damage | Very Desirable | ▪ These rules exist already within the COTIF CUI appendix. There would be no need to redraft such rules at EU level on condition the EU puts and end to its request for reservations to the CUI. If the CUI applies, sufficient legal certainty will exist on the market with some minor adaptations of the CUI (extension of its scope to national traffic and to delays as foreseen in the Passenger Rights Regulation).<br>▪ This question is indeed important and the eventuality of a legal framework at the EU level has to be considered.<br>▪ Such rules are defined under COTIF CUI appendix, which can be used and if necessary complemented without necessarily being overruled by EC new requirements. |
| Enhance independence of IM and RU | Very Desirable | ▪ Force governments that Infrastructure company and National operator are not managed by the same Ministry and there are no capital links between them |
| Clarification of responsibility of RB | Desirable | ▪ Distinction of responsibility between RBs and Competition Authorities should be made clear in Directive 14. |

*Source: Questionnaires, workshop and call follow-up (2008)*

Synthesis of the main results regarding the Modifications

This paragraph reports the average position of stakeholders (Very important/Important/less Important) on the modifications that have been assessed.

The following table presents the final evaluation of Modifications within Objective 1, considering the questionnaire results, the outcome from the workshop and the further comments gathered through telephone calls.

*Table 4: Ranking and Comments on Modifications gathered*

| Modifications | Ranking | Pros | Cons |
|---|---|---|---|
| **M 1 –** Guidelines for the access to RRS (RB) – Soft law | Very Important | ▪ Clarification would eliminate distortion of the market: a clear definition of a "viable alternative" could be beneficial for RUs who currently need to justify their request for the provision of all services; in some Countries only RU can provide certain related services, while in other countries the market is potentially open to everybody. | ▪ Guidelines are not enough, legal rights are necessary;<br>▪ Risk of over-regulation and rigidifying the legal framework; |
| **M 2 –** Independence requirement for the management of Service Facilities | Important | ▪ For most of the facilities, access must be provided on a non discriminatory basis according to existing legislation. For railway stations and marshalling yards special attention should be given and a legal instrument is welcome. | ▪ No main comments |
| **M 3 -** "Use-it-or-lose" | Very Important | ▪ Use-it-or-lose-it-provision for rail-related service facilities are important for the planning and bidding of passenger services;<br>▪ Important to prevent existing operators from grandfathering time table slots (avoids problems of "artificial" saturation of the network). | ▪ Affecting rights of entrepreneurial freedom of owner's decision-making |

| Modifications | Ranking | Pros | Cons |
|---|---|---|---|
| **M 4 -** Use of electrical supply equipment. | Very Important | ▪ It could generate positive effects if electrical supply equipment is managed by an IM not fully separated from incumbent RU;<br>▪ it is preparatory for granting each RU the possibility to negotiate its own contract with the Energy supplier (major cost factor). | ▪ It would not allow RU to negotiate their own contract with energy providers until metrics are inserted in the locos. |

*Source: Questionnaires, workshop and call follow-up (2008)*

The following table presents the final evaluation of Modifications within Objective 2, considering the questionnaire results, the outcome from the workshop and the further comments gathered through telephone calls.

*Table 5: Ranking and Comments on Modifications gathered*

| | | | |
|---|---|---|---|
| **M5-** Network statement legally binding | Important | ▪ The Network Statement is meant to be a helpful and flexible tool providing interested parties with the relevant information. This modification creates the risk of replacing the practical usage of the document with a document drafted by lawyers in 'legal speak'.<br>▪ A legally binding document is however easier to enforce.<br>▪ IM would weaken others position. | ▪ Clarity of information and the facilitation of access are more important than the legal form of the statement. |
| **M 6**- list of procedures for dispute resolution (IM) | Very Important | ▪ Very important, since there is lack of clarity concerning the matters that should be dealt by RB and those that should be dealt by CA;<br>▪ Helps all RUs and customers know all details about network and services;<br>▪ Transparency and more legal certainty. | ▪ Transparency is important, not more detailed provisions;<br>▪ The rail market will not be more open if more information is to be put in the NS (other tools are needed to allow market forces to develop the rail market). |
| **M 7** – publication of price information for RRS (FM) | Very Important | ▪ This modification could introduce transparency: access to services is affected by higher prices applied to new entrants. | ▪ Difficult implementation (some services are not managed directly by IMs);<br>▪ It would happen in any case in the industry. |
| **M 8** - Template for capacity request (IM) | Less Important | ▪ No major comments. | ▪ Template form for capacity request is not the main topic. |
| **M 9** - International path allocation procedures | Important | ▪ This modification could help the standardisation of path allocation procedures: in some MSs the undertakings applying for paths have to present both license and safety certifications; in some other Countries, the license is enough;<br>▪ Helps all RUs and customers to know all details about network and services. | ▪ Heterogeneous scenario as a barrier to the implementation: allocation procedures vary from Country to Country. |
| **M 10** - NS in a second official language (IM) | Very Important | ▪ Very useful for information flow and communication;<br>▪ Chance to collect all NSs on the same website; | ▪ High costs |
| **M 11** - Information on access to service facilities (IM) | Important | ▪ Helps all RUs and customers know all details about network and services;<br>▪ Useful for commercial services. | ▪ difficulties related to the gathering information process: for instance, IMs do not have always this information available since do not always manage directly facilities. |
| **M 12** – Licensing body | Very Important | ▪ Very supportive to enhance rights;<br>▪ Licensing processes have to be eased in all MSs; | ▪ no major comments. |

| | | | |
|---|---|---|---|
| to publish list of requirements (...) to process application and schedules fees | | ▪ Helps all RUs and customers know all details about network and services;<br>▪ Enhanced transparency. | |
| **M 13 –** Extend monitoring of rail market to infrastructure investment, development of price and quality (…). | Very Important | ▪ RMMS is a very good tool to assess the state of development of the market. It will certainly serve as a good political tool for the EC when requiring MS to comply with financial provisions in the Directives;<br>▪ This modification help identifying bottlenecks of the service market, this reason being important to the definition of viable alternative;<br>▪ This modification could be pre-requisite to establish common performance criteria for the whole railway network and railway undertakings. | ▪ Sensitive commercial information of the RU's has not to be transmitted and published in a liberalized market |
| **M 14 -** Accounting separation (Eurotunnel) | Very Important | ▪ Very important: the Directives should apply to all railway infrastructure companies. Hence, the special situation of Eurotunnel compared to other infrastructure companies should indeed be assessed | ▪ No major comments |
| **M 15 -** Accounting separation for "monopoly" activities | Very Important | ▪ No major comments | ▪ No major comments |

*Source: Questionnaires, workshop and call follow-up (2008)*

The following table presents the final evaluation of Modifications within Objective 3, considering the questionnaire results, the outcome from the workshop and the further comments gathered through telephone calls.

*Table 6: Ranking and Comments on Modifications gathered*

| Modifications | Ranking | Pros | Cons |
|---|---|---|---|
| **M 17 -** RB to cooperate and empower them to take joint decision (…) | Very Important | ▪ Both very important: the national RBs shall exchange information about their work and decision-making principles and practice for the purpose of coordinating their decision-making principles across the Community. In this respect, the national RBs shall take into consideration the necessity of int'l cooperation foreseen in a. 15 and of the possible impact of their decisions on the procedures or practices stated at European level. The Commission shall support them in this task. | ▪ It could be too early to force RBs to take joint decision, since in some Mss RBs are not yet established. |
| **M 18:** RB to exchange information ahead of national decision (…) | Very Important | | ▪ Critical overlap with commercially sensitive information |

*Source: Questionnaires, workshop and call follow-up (2008)*

The following table presents the final evaluation of Modifications within Objective 4, considering the questionnaire results, the outcome from the workshop and the further comments gathered through telephone calls.

*Table 7: Ranking and Comments on Modifications gathered*

| Modifications | Ranking | Pros | Cons |
|---|---|---|---|
| **M 19 -** Differentiated Track Access Charges | Less Important | ▪ Chance to finance low noise emission programme. | ▪ Costs to the industry (administration, retrofitting) not to be equally distributed ;<br>▪ Risks of discrimination between operators or cars owners ;<br>▪ Any noise-related access charges on top of the totally non-transparent charges are to be avoided. They do not support to make rail freight more competitive in intermodal terms.<br>▪ Current EU legislation is sufficient |
| **M 20 –** Publication of medium-long term strategy | Very Important | ▪ Potentially able to increase rail's market share;<br>▪ With no strategy for use of network and required level of performance, cost optimisation cannot be reached;<br>▪ The rail industry relies on long lifecycle investments. Long term commitment is necessary for attracting new actors on the market and for developing new services;<br>▪ A medium/long term plan is very important for RUs and IMs so that they can plan their activities in future. | ▪ The RB should not be empowered to assess the appropriateness of development plans. This is not related to the RB's task to promote competition on the railway network. |
| **M 22 –** Performance Regime | Important | ▪ The most effective method of reducing delay. | ▪ Difficult harmonisation;<br>▪ The legislation should not interfere with commercial responsibilities of RUs and IMs; |
| **M 23 –** Harmonised track access charging scheme | Very Important | ▪ Track access charges are cost based – if a segment is to be priorities, there are possibilities to give discounts | ▪ Hard core legislations would not work throughout various considerations of MSs (different level of development, elements of access charge and State's funds)<br>▪ The modification should be adopted through a flexible tool that needs to be adapted regularly to the specific needs. |
| **M 24** – RU to not collect rail infrastructure charges | Very Important | ▪ No major comments. | ▪ Already in place in many MS. No new legislation or soft law necessary;<br>▪ Not focused on equal and transparent access to information on charges. |

*Source: Questionnaires, workshop and call follow-up (2008)*

The following table presents the final evaluation of Modifications within Objective 5, considering the questionnaire results, the outcome from the workshop and the further comments gathered through telephone calls.

*Table 8: Ranking and Comments on Modifications gathered*

| Modifications | Ranking | Pros | Cons |
|---|---|---|---|
| **M 25–** RB to cover decision under Annex II of D 2001/14 | Very Important | ▪ The modification should help clarifying the competences of RBs avoiding overlapping of competences with Competition Authorities. | ▪ No main comments. |
| **M26 –** RB functionally independent | Very Important | ▪ No main comments. | ▪ In some Countries RBs are not yet in place;<br>▪ No need for further regulation at this stage. |

| Modifications | Ranking | Pros | Cons |
|---|---|---|---|
| **M 27** – RB – require cost accounting data in aggregated and standardised form (…) | Very Important | ▪ The Regulator should be in a position to require that track access costs are as low as could reasonably be delivered by a competent and efficient IM. | ▪ Not easily achievable and eventually; generating different administrative costs<br>▪ This does not fit within the set of roles attributed to the RB. |

*Source: Questionnaires, workshop and call follow-up (2008)*

The following table presents the final evaluation of Modifications within Objective 6, considering the questionnaire results, the outcome from the workshop and the further comments gathered through telephone calls.

*Table 9: Ranking and Comments on Modifications gathered*

| Modifications | Ranking | Pros | Cons |
|---|---|---|---|
| **M 28 -** Community liability rules (CUI) | | ▪ Clear rules dealing with responsibility issues between IMs and RUs are essential (e.g. EGTC). For this purpose, either CUI rules could be formally acknowledged, or new responsibility rules could be developed at EU level since national rules are not always exhaustive;<br>▪ Crucial to have clear and balanced liability rules between IMs and RUs. Resolving the COTIF CUI problem would be the only way forward. | ▪ Liability rules already exist within the COTIF CUI appendix. There would be no need to redraft such rules at EU level on condition the EU puts and end to its request for reservations to the CUI. If the CUI applies, sufficient legal certainty will exist on the market with some minor adaptations of the CUI (extension of its scope to national traffic and to delays as foreseen in the Passenger Rights Regulation). |

*Source: Questionnaires, workshop and call follow-up (2008)*

As regards modifications already in place, dividing Modifications by Objective the data gathered from the stakeholders show that in absolute terms, a 26% of modifications are already in place in one Member State out of 4 (or in 25% of EU Countries).

*Figure4: Modifications already in place across Member States of EU 27consulted*


*Source: Questionnaires, workshop and call follow-up (2008)*

## ANNEX III: LINK BETWEEN PROBLEMS, OBJECTIVES AND MODIFICATIONS - MATRIX

| *Horizontal Objectives* | *Clarification* | | | *Modernisation* | | |
|---|---|---|---|---|---|---|
| **Problems** | **Competition** | **Regulatory oversight** | **Investment** | **Competition** | **Regulatory oversight** | **Investment** |
| **Specific Objectives** | | | | | | |
| **1. Improving non-discriminatory access to service facilities** | **M1** | | | | | |
| | | | | **M2** | | |
| | | | | **M3** | | |
| | **M4** | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **2. Enhancing transparency of the functioning of the institutional framework on the railway market** | **M5** | | | | | |
| | **M6** | | | | | |
| | **M7** | | | | | |
| | **M8** | | | | | |
| | **M9** | | | | | |
| | **M10** | | | | | |
| | **M11** | | | | | |
| | **M12** | | | | | |
| | **M13** | | | | | |
| | **M14** | | | | | |
| | **M15** | | | | | |
| **3. Enhance co-operation and co-ordination to facilitate international rail transport** | | | | | **M17** | |
| | | | | | **M18** | |
| **4. Provide effective incentives for sound and sustainable financing of railway systems** | | | | | | **M19** |
| | | | | | | **M20** |
| | | | **M21** | | | |
| | | | **M22** | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | **M23** | | | |
| | | | **M24** | | | |
| **5. Enhancing the independence and the competences of the regulatory body** | | | | **M16** | | |
| | | | | **M25** | | |
| | | | | **M26** | | |

## ANNEX IV: MARKET DEVELOPMENT

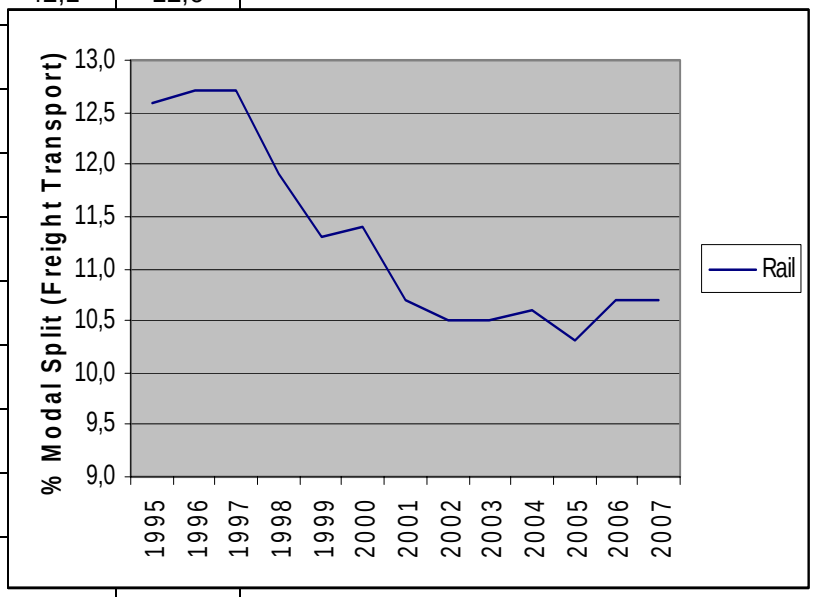
Since 1995, the railway sector has only grown at an average yearly pace of 1,1% tonne-km (t-km)[41]. The freight rail sector in particular underwent substantial decline in the 1980s but regained 12,6% (t-km) between 1995 and 2006.

However, the increasing growth of rail freight in terms of tonnes transported has not been strong enough to recover the market share of 2,1 percentage points lost between 1995 and 2003. Between 2003 and 2007 it increased and has stabilised at 10,7%.

Although the transport performance of rail freight in the EU is now on the upswing and increasing in absolute terms, the observed trend is insufficient to improve the overall modal share of rail freight.

*Table 10. EU-27 rail freight transport modal share (%) expressed in terms of all freight transport (road, rail, inland waterways, pipelines, sea, air)*

| Freight Modal Share | Road | Rail |
|---|---|---|
| Year | % | % |
| 1995 | 42,1 | 12,6 |
| 1996 | | |
| 1997 | | |
| 1998 | | |
| 1999 | | |
| 2000 | | |
| 2001 | | |
| 2002 | | |
| 2003 | | |
| 2004 | | |
| 2005 | 44,9 | 10,3 |
| 2006 | 45,0 | 10,7 |
| 2007 | 45,6 | 10,7 |



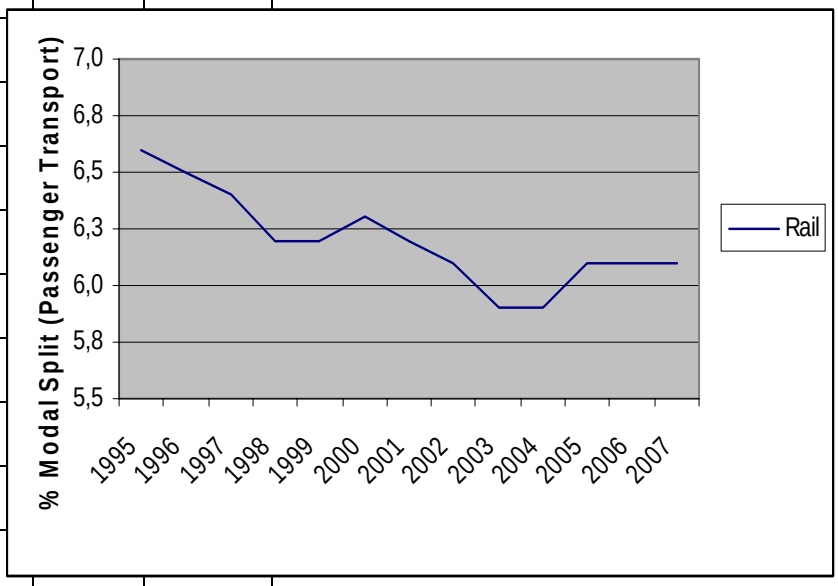

41 Energy and transport in figures 2007, European Commission DG-TREN and Eurostat.

*Source: Energy and Transport in Figures 2009*

Rail passenger transport has also seen a decline over the last three decades; however it has been less dramatic than for freight. Rail's share of the total passenger transport market decreased from 10,2% in 1970 to 6,1% in 2003 in the EU-15 (in terms of passenger-kilometres). In the EU-27, the share of rail passenger transport dropped from 6,6% in 1995 to 5,9 in 2003, but since then it has recovered slightly and stabilised.

*Table 11: EU-27 Rail passenger transport modal share (%) expressed in terms of all passenger transport (cars, powered 2-wheelers, bus and coach, rail, tram and metro, air, sea)*

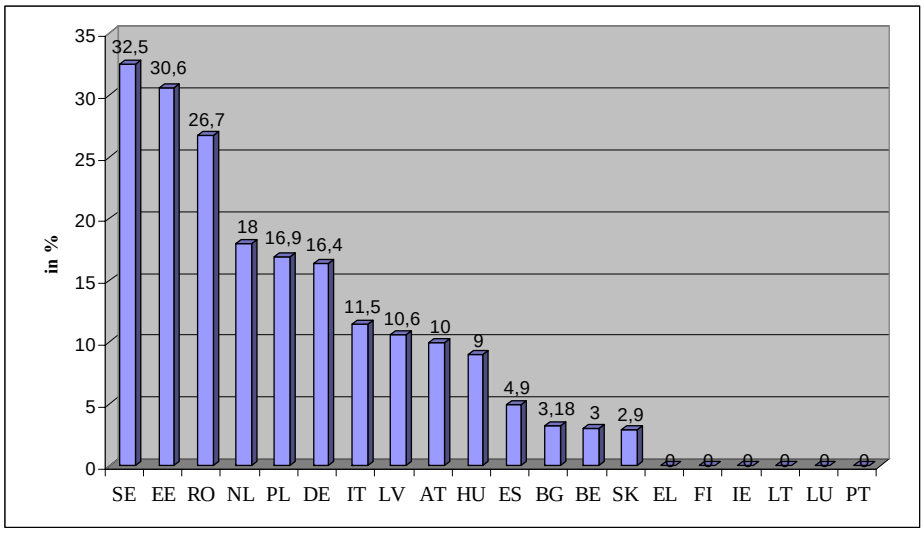
| Passenger Modal Share | Car | Rail |
|---|---|---|
| Year | % | % |
| 1995 | | |
| 1996 | | |
| 1997 | | |
| 1998 | | |
| 1999 | | |
| 2000 | | |
| 2001 | | |
| 2002 | | |
| 2003 | | |
| 2004 | 73,3 | 5,9 |
| 2005 | 72,7 | 6,1 |
| 2006 | 72,8 | 6,1 |
| 2007 | 72,4 | 6,1 |




*Source: Energy and Transport in Figures 2009*

The total market share of non-incumbent railway enterprises operating in the freight market is weak.

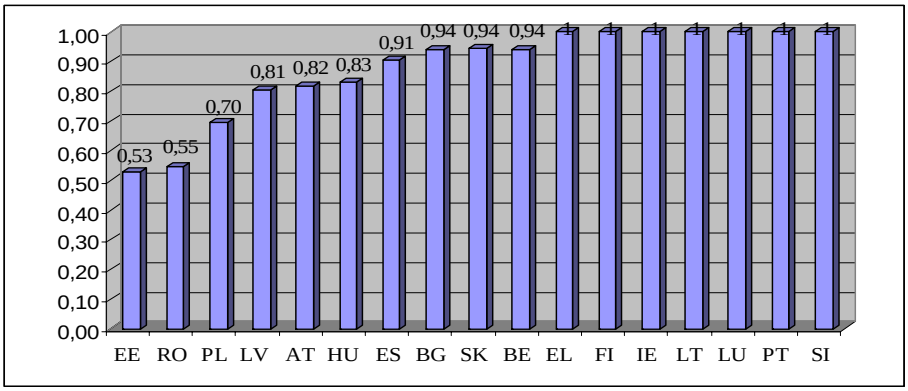
*Figure 5: Total market shares of non-incumbent rail freight operators in 2006*




*Source: Communication from the Commission on monitoring development of the rail market [COM(2007) 609 final]. Data for CZ, DK, FR and UK not available; ES and PT: data for 2005; NL: data for 2003.*

The Herfindahl-Hirschman Index (HHI)[42] calculated for the rail market in EU MS confirms that much still has to be done in terms of the degree of opening of the rail market across Europe. For freight, the most open markets are in Estonia (0,53), Romania (0,55), Poland (0,7) and Latvia (0,8). Monopolies still grasp the rail freight markets in Greece, Finland, Ireland, Lithuania, Luxembourg, Portugal and Slovenia.

*Figure 6: Herfindahl-Hirschmann-Index for the national rail markets*




*Source: Communication from the Commission on monitoring development of the rail market [COM(2007)609 final]. Data for CZ, DE, DK, FR, IT, NL, SE and UK not available.*

42 HHI is defined as the sum of squares of the market shares of each individual firm in the sector. The index estimates the degree of concentration in an industry and indicates the level of competition on the relevant market. It can range from 0 if there are a large number of enterprises, indicating effective competition, to 1 for a single monopoly-holder. It is commonly used as a proxy for measuring market opening.

An analysis of the development of rail market, based on existing studies and reports and taking into account results of the stakeholders' consultation carried out in the context of this impact assessment, reveals the existence of a number of problems in the rail market which lead to inefficiencies that prevent it from functioning adequately and which contribute to its limited development.

Data on investment in the rail industry[43] reveals that where there has been higher investment in infrastructure and rolling stock, greater growth in market share has been achieved: Bulgaria and the Czech Republic (where rail freight modal share slumped from 59,6% to 26,5% and 41,7% to 24% respectively in the 1995-2006 period) illustrate this trend. There, a low level of investment, along with other factors, contributed to a decrease in the modal share of rail. On the other hand, the Netherlands and the UK (modal share increased from 2,4% to 3,9% and 6,9% to 11,2% respectively in the 1995-2006 period) are the benchmarks, revealing a positive correlation between investment in infrastructure improvement and the growth in the modal split of freight rail.[44]

Not all MS have a clear investment plan or long-term strategy for the development of their railways. As a consequence, the degree of maintenance and the level of technology of infrastructure show marked differences across MS.

The financial contributions by governments to infrastructure provision also have an impact on the systems for charging for the use of rail infrastructure which differ considerably between MS. The share of infrastructure costs recouped from infrastructure charges ranges from 5% in Sweden to 100% in the Baltic States – the level of these charges affects operational costs for RUs and contributes to the failure to tackle the poor quality of infrastructure.

In its Communication on monitoring rail market development[45], the Commission concluded that rail freight transport performance stabilised from 2003 onwards and showed slight growth thereafter. Rail market development has seen rather low market penetration and competition in some market segments, such as that for wagonload services, is limited.

The Communication further detailed that some of the significant barriers to the development of the rail freight market were the inconsistent implementation of key provisions of the access legislation by some MS, RUs' weak financial state (especially acute in the newer MS), and high market entry costs due to the high fixed costs of market operations and significant administrative expenses for rolling stock certification and licensing procedures.

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43 International Railway Statistics UIC Report (2005).

44 Source PWC Study

45 COM(2007) 609 of 18.10.2007 Communication of the Commission on "monitoring development of the rail market".

## ANNEX V: PRE-SCREENING OF MODIFICATIONS

In order to evaluate the significance of the implementation of each of the 37 modifications initially proposed by the Commission, as well as to determine their capability to contribute to ensure market access and business development of the rail transport and related service market, a preliminary screening of modifications was been carried out.

The screening process, conducted modification by modification, considered:

1) the judgement of sector based on results of the stakeholders consultation (questionnaire received, written comments, interviews and follow up by phone);

2) the independent assessment based on five criteria (see Table 13) with scores ranging from 1 to 0 per criteria cumulated in a weighted average score.

*Table13: description and weight of the five criteria for preliminary screening of the modifications*

| | *Criteria* | *Description* | *Weighting* |
|---|---|---|---|
| 1 | • Effectiveness | – Are the modifications included in the general objectives effective to ensure market access and business development on the rail transport and related service markets? (High degree of effectiveness=Very High performance)<br>– Score: from 1 (high degree of effectiveness) to 0 (not effective). | 50% |
| 2 | • Implementation time | – How long will it take before the modification will deliver tangible benefits? (Short period of time =Very High performance)<br>– Score: from 1 (very short period of time) to 0 (very long period of time) according to the following:<br>1: this score is given to measure that imply only provision/publishing of information, to modifications that can be immediately applied without any change in the administrative procedures, in the structure of companies etc…;<br>0,75: this score is given to modifications that can be immediately applied, but that require minor changes in the administrative procedures, in the structure of companies etc…;<br>0,5: this score is given to modifications that imply institutional actions to be taken from affected stakeholders (i.e. development of strategic plan, making the RB independent from the Ministries of Transport, etc..) or that imply changes in administrative procedures;<br>0,25: this score is given to modifications that imply major changes in the administrative procedures and at the same time need political willingness to be applied;<br>0: no modification is given this score. | 10% |
| 3 | • Efficiency | – pros /cons ratio of implementing the modification. (High value of the ratio=Very High performance)<br>– Score: from 1 (pros very much higher than cons) to 0 (pros very much lower than cons) according to the following:<br>1: this score is given to modification that imply only provision/publishing of information, to modifications that can be immediately applied without any change in the administrative procedures, in the structure of companies etc…Even if the pros | 10% |

| | Criteria | Description | Weighting |
|---|---|---|---|
| | | produced by such modifications would, in some cases, not be that high, however, the cons of implementing them would be very low;<br>0,75: this score is given to modifications that that require minor changes in the administrative procedures, in the structure of companies etc…and that would deliver high pros;<br>0,5: this score is given to modifications that imply may cons and whose pros would not be high;<br>0,25: this score is given to modifications that imply many cons and whose pros are subject to the solving of implementing issues at specific and political level;<br>0: no modification is given this score. | |
| 4 | • Administrative feasibility | – Would the modification create an additional administrative burden for the rail sector? (Simplification of administrative procedures=Very High performance)<br>– Score: from 1 (facilitate the procedures) to 0 (create additional burdens) according to the following:<br>– 1: this score is given to modification that would facilitate procedures through explanation of unclear procedures through applying minor changes;<br>– 0,75: this score is given to modifications that would facilitate the access to the information regarding existing procedures;<br>– 0,5: this score is given to modifications that imply the implementation of additional procedures that would however add value to the procedural framework;<br>– 0,25: this score is given to modifications that imply the implementation of additional procedures that would create additional burden for the rail sector, but at the same time would add some value;<br>– 0: this score is given to modifications that imply the implementation of additional procedures that would create additional burden for the rail sector and would not add value. | 20% |
| 5 | • Consistency with the existing legal framework | – Does the modification fit into the existing European and national legal framework? (No conflicts=Very High performance) | 10% |

The combined analysis of the results of the judgement of the sector and of the overall weighted average score from the independent evaluation was used to sort the modifications (see Table 14).

*Table 14: Combined analysis of results*

| Judgement of the Industry | Independent evaluation | Final result |
|---|---|---|
| Very important | High score (more than 0,7) | Modification fully assessed |
| Less/not important | Low Score (less than 0,7) | Eliminated |
| Important | Low Score | Case-by-case evaluation |
| Less important | High score | Case-by-case evaluation |

The following 37 modifications (grouped by specific objective) were screened:

| Modification |
| --- |
| **M 1:** Rights related to track access to, and supply of, services in the terminals and ports should be linked to all ports and terminals with rail connections including feeder lines |
| **M 2:** Rail Regulatory Bodies should develop guidelines on the interpretation of the provisions concerning access to rail related services and pricing of services |
| **M 3:** Introduction of independence requirements for the management of service facilities from rail transport provision (i.e. legal, organizational and decision making independence) |
| **M 4:** Introduction of 'Use-it-or-lose-it' provisions for the management of rail related service facilities. |
| **M 5:** Use of electrical supply equipment for traction current should be defined as part of minimum access package (group 1 of Annex II - Directive 2001/14). Traction network operator would be subject to non-discrimination requirements. Energy charges and invoices should show separately the charges for using the electrical supply equipment and for traction current. |
| **M 6:** Mandatory introduction of the authorised applicant principle |
| **M 7:** Facility Managers should develop voluntarily standardised template documents such as a common format for a product catalogue of certain rail-related services (e.g. on basic details of the charges for access to the facility and for the provision of services, on technical access conditions), possibly on an “on demand” basis. |
| **M 8:** Make the Network Statement a legally binding document |
| **M 9:** Infrastructure managers to publish a list of available procedures for dispute resolution and appeal relating to all market access related matters in the sector |
| **M 10:** Facility managers to publish price information for rail related services |
| **M 11:** Infrastructure managers to publish a template form for capacity requests |
| **M 12:** Infrastructure managers to publish detailed information about international path allocation procedures |
| **M 13**: Require extended periods of consultation if charges for a particular market segment increase significantly, e.g. to start minimum one year before publication of Network Statement for over 20% increase |
| **M 14:** Network statements to contain a cross reference to the information on licensing and insurance requirements |
| **M 15:** Infrastructure managers to publish the Network Statement in a second of official EU language and in an electronic form on the web accessible for instance through a web portal of the European Railway Agency (ERA) |
| **M 16:** Infrastructure managers to publish references to relevant information on access to service facilities (beyond the tariff information currently required), including those in border crossing station |
| **M 17:** Oblige licensing body to publish clear list of requirements, indicative response times to process application and schedule of fees |
| **M 18:** Extend the monitoring of the rail market to items such as rail infrastructure investments, |

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| developments of prices and quality of rail transport services and public service obligations for rail passenger transport |
| **M 19:** Oblige infrastructure companies such as Eurotunnel to have separate accounts for infrastructure and rail transport related activities including activities such as the rail shuttle services which are now excluded from the scope of the Directives |
| **M 20:** Oblige railway undertakings to have separate accounts for activities that enjoy a legal monopoly in contrast to activities that are subject to competition |
| **M 21**: Empower the Rail regulatory body to carry audits out or to initiate external audits with the railway undertakings and infrastructure managers to verify the compliance with accounting separation provisions. |
| **M 22:** Enhance transparency related to the procedures and responsibilities of the actors who are involved in the coordination of international train paths, for instance, through allowing regulatory bodies to participate in meetings of Rail Net Europe |
| **M 23:** Introduce a legal base for reinforcing the structures for cooperation of regulatory bodies (e.g. setting up formal joint working groups and a secretariat, agreeing on common principles and procedures of decision making) |
| **M 24:** Oblige regulatory bodies to cooperate and empower them to take a joint decision in case of a problem related to access or pricing (complaint based or ex-officio action) in case of international services (e.g. related to a facility in a border-crossing station). |
| **M 25:** Authorise RBs to exchange information ahead of a national decision in case of a problem related to access or pricing (complaint based or ex-officio action) in case of international services |
| **M 26:** Extension of the international cooperation of IMs to international rail traffic management or infrastructure charging (e.g. European Performance Regime) |
| **M 27:** Require more coherent national rail infrastructure cost accounting principles such as Activity Based Cost accounting |
| **M 28**: Introduce differentiation of track access charges depending on the noise emission characteristics of the rolling stock composing the train |
| **M 29:** Oblige Member States to publish a medium to long term railway sector development strategy enabling meeting future mobility needs based on sound and sustainable financing of the railway system e.g. based on multi-annual contracts.<br><br>Empower an independent body such as the Regulatory Body to assess the appropriateness of the envisaged medium to long term budgetary envelop for the high-level infrastructure output specifications for the same period |
| **M 30:** Require the State's charging framework to be published and require a cross reference from the network statement to the charging framework |
| **M 31:** Strengthen the management independence of Railway Undertakings through a definition of 'general policy guidelines' determined by the State.<br><br>For instance, 'general policy guidelines' should only determine statutes of the company, composition of management and supervisory board. |
| **M 32:** Define more clearly the main characteristics and general principles of performance regimes that are compatible across Member States (e.g. definition of a minimum set of delay causes with assigned |

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| responsibilities, including a harmonised definition of the point from when a delay is counted, allow different market segments in the design of a performance regime, 'notwithstanding the non-discrimination requirements, define the treatment of delays as they build up before a train arrives the border or as they build up at the border). |
| **M 33:** Introduce harmonised structural elements in track access charging schemes for international transport.<br><br>e.g. for European corridors: international rail freight to be considered as a separate market segment; apply the 'if the market-can-bear-it rule' to international rail freight transport |
| **M 34:** Abolish the possibility that Railway Undertakings can collect rail infrastructure charges.<br><br>Infrastructure Managers should be responsible for collecting the track access charge to avoid that Railway Undertakings obtain access to commercially sensitive information about train paths specifications from the bill for competing Railway Undertakings |
| **M 35**: The scope of competences of regulatory bodies shall explicitly cover Decisions related to Annex II of Directive 2001/14 in order to be put in a position to effectively ensure non-discriminatory access to rail related services. |
| **M 36**: Regulatory bodies shall be at least functionally independent including decision making independence from the public authority that exercises the ownership rights of the incumbent railway undertaking**.** |
| **M 37**: Empower regulatory bodies to require cost accounting data in an aggregated and standardised form as 'regulatory accounts" in a common format, which include infrastructure managers' main cost elements and performance parameters**.** |

The following table summarises the results of the preliminary screening of modifications, in particular:

– ranking of the modification for each criterion identified;

– final average score according the “five criteria” approach and to the weights assigned to each criteria;

– final average score according the stakeholder consultation process (questionnaire, workshop and phone calls);

– final qualitative result related to the final score, according to the combined analysis of the results of the 2 evaluation approaches.

Results of the analysis have been used to rule out of the Impact Assessment those modifications reported as not significantly important.

*Table 14: Results of preliminary screening of Modifications*

| **MODIFICATION** | Effectiveness | Implementation time | Efficiency | Administrative feasibility | Consistency with the existing legal framework | Weighed Average Score | Result from Five Criteria Approach | Results From Stakeholder Consultation | **FINAL RESULTS** |
|---|---|---|---|---|---|---|---|---|---|
| *WEIGHT* | ***50%*** | ***10%*** | ***10%*** | ***20%*** | ***10%*** | | | | |
| M 1 | 0,5 | 0,75 | 1 | 0,5 | 1 | 0,63 | Less Important | Very Important | Eliminated |
| M 2 | 0,75 | 0,25 | 0,5 | 0,75 | 1 | 0,70 | Very Important | Very important | Fully Assessed |
| M 3 | 1 | 0,25 | 0,25 | 0,75 | 0,25 | 0,73 | Qualitative | Important | Qualitative Assessment |
| M 4 | 0,75 | 0,75 | 0,75 | 0,5 | 1 | 0,73 | Very Important | Very Important | Fully Assessed |
| M 5 | 0,5 | 0,75 | 0,75 | 1 | 1 | 0,70 | Very Important | Very Important | Fully Assessed |
| M 6 | 0,25 | 0,75 | 0,5 | 0,25 | 0,5 | 0,35 | Less Important | Less Important | Eliminated |
| M 7 | 0 | 1 | 1 | 0,75 | 1 | 0,45 | Less Important | Less Important | Eliminated |
| M 8 | 0,5 | 0,5 | 0,25 | 0,25 | 0,5 | 0,68 | Less Important | Important | Qualitative Assessment |
| M 9 | 0,75 | 0,75 | 1 | 1 | 1 | 0,85 | Very Important | Very Important | Fully Assessed |
| M 10 | 0,5 | 1 | 1 | 0,75 | 1 | 0,70 | Very Important | Very Important | Fully Assessed |
| M 11 | 0 | 0,75 | 0,5 | 0 | 1 | 0,23 | Enhance Transparency | Less Important | Enhance Transparency |
| M 12 | 0,5 | 0,75 | 0,5 | 0,75 | 1 | 0,63 | Enhance Transparency | Important | Enhance Transparency |
| M 13 | 0,5 | 0,25 | 0,5 | 0,25 | 0,5 | 0,43 | Less Important | Important | Eliminated |
| M 14 | 0,5 | 0,75 | 0,75 | 0,75 | 1 | 0,65 | Less Important | Less Important | Eliminated |
| M 15 | 0,5 | 0,75 | 1 | 1 | 1 | 0,73 | Very Important | Very Important | Fully Assessed |
| M 16 | 0,25 | 0,75 | 0,5 | 0,75 | 1 | 0,50 | Enhance Transparency | Important | Enhance Transparency |
| M 17 | 0,75 | 0,75 | 0,75 | 0,75 | 1 | 0,78 | Very Important | Very Important | Fully Assessed |
| M 18 | 0,75 | 0,75 | 0,75 | 0,5 | 1 | 0,73 | Very Important | Very Important | Fully Assessed |
| M 19 | 0,5 | 1 | 1 | 0,75 | 1 | 0,70 | Very Important | Very Important | Fully Assessed |
| M 20 | 0,75 | 0,75 | 0,5 | 0,5 | 1 | 0,70 | Very | Very | Fully Assessed |

| **MODIFICATION** | Effectiveness | Implementation time | Efficiency | Administrative feasibility | Consistency with the existing legal framework | Weighed Average Score | Result from Five Criteria Approach | Results From Stakeholder Consultation | **FINAL RESULTS** |
|---|---|---|---|---|---|---|---|---|---|
| *WEIGHT* | ***50%*** | ***10%*** | ***10%*** | ***20%*** | ***10%*** | | | | |
| | | | | | | | Important | Important | |
| M 21 | 0,75 | 0,75 | 0,5 | 0,5 | 1 | 0,70 | Very Important | Very Important | Fully Assessed |
| M 22 | 0,5 | 0,5 | 0,5 | 1 | 0,5 | 0,60 | Less Important | Important/Less important | Eliminated |
| M 23 | 0,5 | 0,5 | 0,5 | 0,5 | 0,75 | 0,53 | Less Important | Important | Eliminated |
| M 24 | 0,75 | 0,5 | 0,75 | 0,75 | 0,5 | 0,70 | Very Important | Very Important | Fully Assessed |
| M 25 | 1 | 1 | 1 | 0,75 | 0,75 | 0,93 | Very Important | Very Important | Fully Assessed |
| M 26 | - | - | - | - | - | - | To be assessed with M 32 | Important | Assessed with M 32 |
| M 27 | 0,75 | 0,25 | 0,25 | 0,5 | 1 | 0,63 | Less Important | Less Important | Eliminated |
| M 28 | 0,75 | 0,25 | 0,5 | 0,75 | 1 | 0,70 | Very Important | Less Important | Fully Assessed |
| M 29 | 1 | 0,5 | 0,5 | 0,75 | 1 | 0,85 | Very Important | Very Important | Fully Assessed |
| M 30 | 0,75 | 0,75 | 0,5 | 0,25 | 1 | 0,65 | Less Important | Important | Enhance Transparency |
| M 31 | 0,75 | 0,25 | 0,25 | 0,75 | 0,25 | 0,60 | Less Important | Less Important | Eliminated |
| M 32 | 0,75 | 0,25 | 0,5 | 0,75 | 1 | 0,70 | Very Important | Important | Fully Assessed |
| M 33 | 0,75 | 0,25 | 0,5 | 1 | 0,75 | 0,73 | Very Important | Very Important | Fully Assessed |
| M 34 | 1 | 0,75 | 0,75 | 0,5 | 1 | 0,85 | Very Important | Very Important | Fully Assessed |
| M 35 | 1 | 1 | 0,75 | 0,75 | 1 | 0,93 | Very Important | Very Important | Fully Assessed |
| M 36 | 1 | 0,5 | 0,5 | 0,75 | 0,75 | 0,83 | Very Important | Very Important | Fully Assessed |
| M 37 | 1 | 0,75 | 0,75 | 0,75 | 1 | 0,90 | Very Important | Very Important | Fully Assessed |

Out of the 37 modifications identified, 11 modifications were ruled out for a number of different reasons, in particular:

– six modifications (M6, M7, M14, M22, M27 and M31) have been eliminated according to the low level of importance jointly assigned by the stakeholder evaluation and by the “five criteria” approach;

– four modifications, considered as less important or important, were ruled out according to a further case-by-case evaluation. In particular, the following table summarises the main comments and considerations related to the elimination of these modifications.

*Table 15: Further comments on modification elimination*

| ***Modifications Eliminated*** | ***Comments*** |
|---|---|
| Modification 1 | – The impact is already assured by the natural implementation of the directive 91/440 and 2001/14: the modification consists only in a sort of technical adaptation of these directives, without any important changes. |
| Modification 13 | – This modification seems to be not feasible: it is quite difficult to define a legal framework because the concept of "significant increase" has to be valuated depending on the starting point; in any cases the duration of consultation periods should be defined at National level taking into account national specificities;<br>– IMs are already obliged to run consultations before drafting their Network Statement in existing legislation. |
| Modification 23 | This modification has been replaced by modifications 24 and 25 |
| Modification 26 | This modification will be assessed jointly with the modification 32 because of the common scope |

Moreover, there are other modifications which were recommend to be "fully assessed" even though they were evaluated as less important by both analyses. The decision to retain this modification was based on the following considerations:

– Modifications 11, 12, 16 and 30: these modifications do not have a high impact/effect on the rail sector if separately implemented; however the three modifications could strongly contribute to attain the objective of enhancing transparency within the railway market, if jointly developed with the others belonging to the same group; the effects of the modifications will not be analysed, but they will improve the effectiveness in enhancing transparency of the other modifications within the same objective.

– Modification 28 (related to the introduction of differentiation of track access charges depending on the noise emission characteristics of the rolling stock composing the train): the European Community has already acted on this issue, adopting modifications in the environmental[46] and rail interoperability fields[47] and has published a Communication[48] underlining the high importance of rail noise abatement modifications.

46 Environmental Noise Directive 2002/49/EC5 providing for noise maps and action plans;

47 TSI Noise, introducing noise limit values for new and renewed vehicles;

48 [COM(2008) – 08-07-08] "*Communication from the commission to the European*" and [COM(2008) 432-2204] "*Commission staff working document*" on Rail noise abatement measures addressing the existing fleet".

## ANNEX VI : MODIFICATIONS RETAINED FOLLOWING PRE-SCREENING

Please note, for the sake of clarity, that the modifications retained after the screening have been renumbered from 1 to 26 and therefore the numbering does not correspond to the numbering of the original 37 modifications.

*Table 16: Package of 26 modifications retained following pre-screening*

| ***General Objectives*** / ***Specific Objectives*** | ***Clarification*** | ***Modernisation*** |
|---|---|---|
| **1. Improving non-discriminatory access to service facilities** | **M1:** Rail Regulatory Bodies should develop guidelines on the interpretation of the provisions concerning access to rail related services and pricing of services | |
| | | **M2:** Introduce independence requirements for the management of service facilities from rail transport provision (i.e. legal, organisational and decision-making independence) |
| | | **M3:** Introduce 'Use-it-or-lose-it' provisions for the management of rail related service facilities. |
| | **M4:** Define use of electrical supply equipment for traction current as part of "minimum access package" (Group 1) of services to be supplied to the RUs. Traction network operators would be subject to non-discrimination requirements. Energy charges and invoices should show separately the charges for using the electrical supply equipment and for traction current. | |
| **2. Enhancing transparency of the functioning of the institutional framework on the railway market** | **M5:** Make the Network Statement a legally binding document | |
| | **M6:** Infrastructure managers to publish a list of available procedures for dispute resolution and appeal relating to all market access related matters in the sector | |
| | **M7:** Facility managers to publish price information for rail related services | |
| | **M8:** Infrastructure managers to publish a template form for capacity requests | |
| | **M9:** Infrastructure managers to publish detailed information about international path allocation procedures | |

| General Objectives / Specific Objectives | Clarification | Modernisation |
|---|---|---|
| | **M10:** Infrastructure managers to publish the Network Statement in a second of official EU language and in an electronic format on the web, accessible for instance through a web portal of the European Railway Agency (ERA) | |
| | **M11:** Infrastructure managers to publish references to relevant information on access to service facilities (beyond the tariff information currently required), including those in border crossing stations | |
| | **M12:** Oblige licensing body to publish clear list of requirements, indicative response times to process application and schedule of fees | |
| | **M13:** Extend the monitoring of the rail market to items such as rail infrastructure investments, development of prices and quality of rail transport services and public service obligations for rail passenger transport | |
| | **M14:** Oblige infrastructure companies with both infrastructure and rail transport related activities (including activities such as rail shuttle services, which are currently excluded from the scope of the directives) to have separate accounts for those activities | |
| | **M15:** Oblige railway undertakings to have separate accounts for activities that enjoy a legal monopoly in contrast to activities that are subject to competition | |
| **3. Enhance co-operation and co-ordination to facilitate international rail transport** | | **M17:** Oblige regulatory bodies to cooperate and empower them to take a joint decision in case of a problem related to access or pricing (complaint based or ex-officio action) in the case of international services (e.g. related to a facility in a border-crossing station). |
| | | **M18:** Authorise RBs to exchange information ahead of a national decision in case of a problem related to access or pricing (complaint based or ex-officio action) in the case of international services |

| General Objectives / Specific Objectives | Clarification | Modernisation |
|---|---|---|
| **4. Provide effective incentives for sound and sustainable financing of railway systems**[49] | | **M19**: Introduce differentiation of track access charges depending on the noise emission characteristics of the rolling stock composing the train |
| | | **M20:** Oblige Member States to publish a medium- to long-term railway sector development strategy that enables future mobility needs to be met and which is based on sound and sustainable financing of the railway system (e.g. based on multi-annual contracts.)<br>Empower an independent body such as the Regulatory Body to assess the appropriateness of the envisaged medium- to long-term budgetary envelop for the high-level infrastructure output specifications for the same period. |
| | **M21:** Require the Member State's charging framework to be published and require a cross reference from the Network Statement to the charging framework | |
| | **M22:** Define more clearly the main characteristics and general principles of performance regimes that are compatible across Member States (e.g. definition of a minimum set of delay causes with assigned responsibilities, including a harmonised definition of the point from when a delay is counted, allow different market segments in the design of a performance regime, 'notwithstanding the non-discrimination requirements, define the treatment of delays as they build up before a train arrives the border or as they build up at the border). | |
| | **M23:** Introduce harmonised structural elements in track access charging schemes for international transport. e.g. for European corridors: international rail freight to be considered as a separate market segment; apply the 'if the market-can-bear-it rule'[50] to international rail freight transport. | |

[49] Measures under this specific objective with the exception of M21 (publication of charging framework and cross-reference from network statement to charging framework) have been developed through numerous studies and evaluations, including an Impact Assessment on Rail Noise Abatement Measures (M19), Communication on Multi-Annual Contracts (M20), workshop with stakeholders on Performance Regimes (M22), RAILCALC study (M23), stakeholders consultation (M24).

[50] This rule is set out in Article 8 of Directive 2001/14/EC which states an exception to the rule of marginal cost charging (Article 7(3) -- "directly incurred as a result of operating the train service): "*In order to obtain full recovery of the costs incurred by the infrastructure manage,' a Member State may, if the market can bear this, levy mark-ups on the basis of efficient, transparent and non-discriminatory principles, while guaranteeing optimum competitiveness in particular of international rail freight….*"

| *General Objectives* / *Specific Objectives* | *Clarification* | *Modernisation* |
|---|---|---|
| | **M24:** Abolish the possibility that Railway Undertakings can collect rail infrastructure charges.<br>Infrastructure Managers should be responsible for collecting the track access charge to avoid Railway Undertakings obtaining access to commercially sensitive information about train paths specifications from the bill for competing Railway Undertakings. | |
| **5. Enhancing the independence and the competences of the regulatory body** | | **M16**: Empower regulatory bodies to require cost accounting data in an aggregated and standardised format as 'regulatory accounts" in a common format, which include infrastructure managers' main cost elements and performance parameters**.** Empower the rail regulatory body to carry out audits or to initiate external audits with railway undertakings and infrastructure managers to verify the compliance with accounting separation provisions. |
| | | **M25**: Extend the scope of competences of regulatory bodies to explicitly cover Decisions related to Annex II of Directive 2001/14 in order to be put in a position to effectively ensure non-discriminatory access to rail related services. |
| | | **M26**: Make regulatory bodies at least functionally independent, including decision-making independence from the public authority that exercises the ownership rights over the incumbent railway undertaking**.** |

## ANNEX VII: METHODOLOGICAL APPROACH FOR THE QUALITATIVE ASSESSMENT OF 5 NEW MEASURES

The impact assessment analysis has been conducted in qualitative terms. The results are represented in such a way as to allow the comparison of the effects of the alternative policy options of each measure.

In order to reach the aim and respond to these requirements, the adopted approach was based on the points summarised below. Further details on the methodology for the quantitative analysis are given in the following paragraphs.

1) Identification and description of the baseline scenario: the baseline scenario for the assessment corresponds to Policy Option O and is represented through the indicator variations which are expected to occur in the case of no further EU action. Moreover, for each measure, the effects expected in case of no further EU action have been identified and described in qualitative terms. The trends considered for the assumptions are those found in literature and in the EU sources and studies which have gathered a wide consensus (e.g. Eurostat data, "Energy and Transport Trends to 2030").

2) Definition of time-frame and time evolution of impacts: impacts are assumed to evolve linearly over time from a certain starting date and for a certain extent of time depending on the measure and the policy option. The overall time-frame for the assessment is the period 2007-2020.

3) Development of the cause-effect analysis and identification of impacts and affected stakeholders: the core part of the study has been characterised by a step-by-step approach, with the aim of defining a possible sequence of actions (activities deriving directly from decisions of stakeholders) and effects (consequences of actions) connected with the implementation of the measures and the policy options. The impacts are linked to the provisions included in the different alternative set of options provided for each measure. It was observed that each measure/option can concur with a different level of effectiveness to remove barriers to market liberalisation (e.g. operational barriers, administrative barriers), this leads to potential effect correlated with the "performance" of the rail system (e.g. modal share of rail freight transport, market share of non-incumbent operators). These effects that are themselves Direct Impacts are likely to cause Indirect Impacts (e.g. variations in air pollution, employment rate).

4) Qualitative assessment: the effectiveness of the different provisions included in the alternative policy options of each measure has been assessed in qualitative terms. Also, direct and indirect impacts, depending on the effectiveness of the

different provisions in removing given market barriers, have been assessed in qualitative terms. Qualitative assessment has been preferred to quantitative assessment, as the latter was not practicable because of the unavailability of fundamental information and data regarding: the market of rail service facilities; specific market segments; country specific market; etc.

5) Comparison of Policy Options. The Policy Options are compared through a Multi-Criteria Analysis which takes into account all impacts.

6) Administrative costs have been identified according to the Commission specification (see IA guide lines). Accordingly, the identification and assessment of administrative costs have been made through the EU Standard Cost Model. Firstly, each provision included in the alternative policy options of each measure has been analysed in order to identify if it could give rise to administrative burdens. Secondly, the administrative burden related to each action has been analysed in order to assess expected administrative costs. Costs (one-off and recurrent) are presented separately for businesses and public administration.

## ANNEX VIII: IMPACT ASSESSMENT OF THE MEASURE ON THE SUPPLY OF RAIL-RELATED SERVICES

# 1. Analysis of impacts

Hereafter it is presented a qualitative assessment of the 3 alternative policy options with respect to the different economic social and environmental expected effects. Impacts are assessed against the baseline scenario and referred to the 2007-2020 timeframe.

Each effect and each option has been assigned a relative score ranging from 0 to 3. Options that are reckoned to be highly effective in generating a specific effect, have been assigned the maximum relative score (3). If the measure under assessment is not reckoned to be considerably effective in achieving a specific effect (e.g. indirect effect) then also the most effective option has been assigned a low relative score.

As regards subsidiarity, problems of inadequate supply of rail related service affect the railway sector throughout the EU. They are particularly acute for international freight and passenger rail services and represent a barrier to cross-border operations. Such trans-national aspects require action to be taken at the EU level.

The regulatory framework for rail market access in general and access to rail-related services in particular has been developed at EU level. Clarification and development of the existing acquis in order to create a level playing field for all EU railway undertakings can be better achieved by the Union than by MS individually. Removing problems of inadequate supply of rail-related services which have been identified as a main obstacle to market entry is essential for the completion of the internal rail market.

In accordance with the principle of subsidiarity as set out in Article 5 of the Treaty, the objective of the EU in revitalising Europe's railway sector and, in particular, improving the supply of and access to rail-related services through specific independence requirements, will be better reached by complementing the action already taken at EU level and by MS by EU action.

## 1.1. Economic Impacts

Competition and opening of the rail market

### *1.1.1. Development of rail related services*

According to the cause-effect analysis this measure can have a relevant impact on the development of rail-related services, for example in terms of number of service providers and of easier access to these services.

The potential increase in rail freight transport connected with these measures could have an effect on the development of the market. However, this is a second order effect and, moreover, it is not quantifiable on the basis of the data available for this study.

The option 2 is expected to be effective because it assure sufficient independence of the operator of the service facility from the rail transport provision. Even if option 3 is stricter than option 2 in terms of independence is not expected to be more effective due to other side effects. Finally option 1 is not expected to be much effective because it won't assure higher independence in most of the cases.

Accordingly the results of the assessment of these are described here.

*Table 17: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Development of rail related services** | 0.5 | 3 | 2.50 |

*Source: PwC elaboration (2009).*

Options 2 and 3 are reckoned to be the one with the highest effectiveness respect to the opening of the rail-related service market.

### *1.1.2. Modal share of rail transport*

Modal shift from road transport to rail transport could be an indirect effect of this measure. A possible reduction of average operating costs for railway undertakings (cf. paragraph 1.1.5) may result in a slight decrease of costs of rail transport and in a minor modal shift from road transport to rail transport.

Cautiously, it is assumed that expected impacts of the 3 options are moderate. Considering that option 2 is the most effective, option 3 is less effective than option 3 and option 1 is scarcely effective, the following relative scores were assigned.

*Table 18: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Modal share of rail transport** | 0.25 | 1.0 | 0.75 |

*Source: PwC elaboration (2009).*

### *1.1.3. New entrants in the rail freight market*

Higher independence of the operator of the service facility from rail transport provision can assure easier access to rail related services for new entrants. Hence, it can indirectly contribute to the opening of the market to new railway undertakings.

Having said that, and taking in account results of analysis of effectiveness of each policy option in acquiring measure objectives, the following relative scores were assigned.

*Table19: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **New entrants in the rail freight market** | 0.5 | 2.0 | 1.5 |

*Source: PwC elaboration (2009).*

### *1.1.4. Market share of new entrants in the rail freight market*

Easier access to rail related services for new entrants will contribute to the development of new rail freight services, hence to increase the market share of new entrants.

Considering, also, the results of analysis of effectiveness of each policy option in acquiring measure objectives, the following relative scores were assigned.

*Table20: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Market share of new entrants in the rail freight market** | 0.5 | 2.0 | 1.5 |

*Source: PwC elaboration (2009).*

### *1.1.5. Average operating costs for Railway Undertakings*

Independence between the operator of the service facility and the rail transport provision should also assure higher transparency on the rail related services charges. Hence, on average, with the implementation of this measure new entrant railway undertakings are likely to pay lower tariffs for rail related services.

Expected impacts of this measure will also depend on the effectiveness of each options in achieving the objectives. Accordingly, the following qualitative assessment scores were assigned.

*Table 21: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Average operating costs for Railway Undertakings** | 0.25 | 1.25 | 1.5 |

*Source: PwC elaboration (2009).*

### *1.1.6. Administrative costs for the EU and Member States and for the railway sector (RU, IM, SPO)*

The description of the impact is reported in paragraph 1.4.

## 1.2. Social Impacts

Employment

### *1.2.1. Employment within the rail industry*

Introducing independence requirements for the management of services facilities from the transport provision is likely to generate some positive effect in terms of employment. Once services facilities providers are more independent from incumbent railway undertakings, they will be keener to provide their services to a larger number of operators. Hence their business will develop and more workforces will be needed.

Option 2 and 3 can be quite effective in developing rail related services market, hence they are likely to generate some additional employment in the sector. Conversely, option 1 is not reckoned to be effective with that respect, hence additional employment will not be generated.

Accordingly the results of the assessment of these are described here.

*Table 22: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Employment within the rail industry** | 0 | 0.50 | 0.25 |

*Source: PwC elaboration (2009).*

Working conditions

### *1.2.2. Education and mobility of workers in the rail sector*

The increased demand in the provision of rail related services may lead to improved working conditions, and above all to an increased demand of skilled personnel, and staff prepared to higher mobility and to work abroad. Education, mobility and skill level are the key indicators for improved working conditions in this context.

The general demand for more skilled personnel leads in turn to a higher demand of training centres, and to a higher quality of training, more focused in the development of professional figures devoted in higher added value activities.

As it was articulated above, option 2 and to a lower extent option 3 are likely to be quite effective in developing rail relating services and hence in boosting the demand of skilled personnel and of staff prepared to higher mobility. By contrast option 1 is not expected to produce any relevant impact with this respect.

The results of the assessment of these are described here.

*Table23: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Education and mobility of workers in the rail sector** | 0 | 0.75 | 0.50 |

*Source: PwC elaboration (2009).*

1.3. Environmental Impacts

As previously suggested this measure could potentially affect the modal share of rail transport. If a modal shift from road to rail transport will be induced from this measure than some positive environmental impacts will be generated.

More in detail benefits in the air quality could be obtained in terms of reductions of NOx and PM emissions. The impact on the climate change, estimated through the emission of $CO_2$, could also be positive. Moreover, benefits due to the reduction of energy consumption could arise.

By contrast, the modal shift may result in higher noise emission. In any case it is worth mentioning that, the disbenefits due to the increase of noise emissions are about 1/10 of the benefits achieved by reducing the emission of pollutants expressed as external costs.

In consideration of the scarce capacity of this measure by itself of assuring relevant modal shift, it was cautiously assumed that the expected impact for the 3 options would be moderate. Once again higher impacts are expected for option 2 that should be more effective in enhancing modal shift.

*Table 24: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Environmental Impacts** | 0.25 | 1.0 | 0.75 |

*Source: PwC elaboration (2009).*

1.4. Administrative costs

As considered before, the aim of measure 2 is the introduction of independence requirements for the management of service facilities from rail transport provision.

The implementation of policy option 1 involves additional administrative costs to be borne both by the public sector (at EU level) and by the business sector compared to the baseline scenario.

As far as the public sector is concerned, the implementation of the option will involve a preliminary project at EU level with the aimed at identifying specific market segment and related involved entities and at developing guidelines and recommendations to perform monitoring programmes on the market. Such costs may be referred to as "one off" costs for the public sector related to information requirements, and are expected to be sustained within the first /second year of the initiative.

As far as the business sector is concerned (manager of the service facility), the implementation of the option will involve activities aimed at setting up the new legally independent structures (evaluation of the company, definition of the organisational structure, re-design of internal procedures, control of the start-up process, training of the employees, etc..) in all cases in which management of the service facility and management of the transport operation occur under the same company in separate business divisions. Administrative costs related to such activities may be referred to as "one-off "business sector costs related to information requirements and are expected to occur in a two-three years time at the beginning of the process.

Turning a division/area of a large firm/entity into a separate legal entity will involve additional "recurrent" administrative costs compared to the baseline, due to the need of additional flow of information (i.e. financial reporting to the holding, notifications and information to ensure transparency, submission of new internal reports on activities, registrations and notifications of service facility availabilities, etc). Such costs may be referred to as "recurrent" administrative costs for the business sector related to information requirements.

The creation of a new entity could also require additional resources/structures in order to manage service units, such as the legal department, the human resources department, etc... However, it can be assumed that personnel could be shifted from one company to another, thus it is not expected to involve additional administrative costs compared to the baseline scenario.

The implementation of option 2 will involve the same level and nature of administrative "one-off" costs for the public sector. "One-off" costs for the business sector will be of the same nature of those of policy option 1. However, since the number of entities involved in the process will be higher (it will include also those transport operators that are currently legally separated from the manager of the facility, but are part of the same financial group) one off administrative costs incurred by the business sector is expected to be higher than in option 1.

The implementation of option 3 will involve the same level and nature of administrative "one-off" costs for the public sector incurred in option 1 and in option 2.

"One-off" administrative costs incurred by the business sector will be of the same nature of those in option 2, but since the scope of the option is larger (it applies to all

entities notwithstanding their market share) the level of administrative costs is expected to be higher.

No recurrent administrative costs are expected for the same reason of policy option 2.

The level of costs for administrative obligations depend on several factors, in particular it depends on the number, size and structures of the entities involved, and on typology and number of the service facilities.

These administrative costs could range depending on several factors, in particular: service markets, legal structures and size of service operators and wide range of service markets and facilities. The variegated picture of the management of service facilities make not possible to provide a fully reliable quantification of the administrative costs of this specific measure for the business sector. However under the assumptions and simplification described in Annex XIII, it is possible to provide an example of potential impacts in terms of administrative costs.

The following table presents the main figures of "one-off" and "recurrent" administrative costs against the baseline scenario due to the implementation of the measures 2.

*Table 25: Administrative Cost vs Base line scenario: "one-off", "recurrent" (M€)*

| | One Off Costs (M€) | | | Recurrent (M€/year)) | | |
|---|---|---|---|---|---|---|
| **Option 1** | **Total** | **Business sector** | **Public sector** | **Total** | **Business sector** | **Public sector** |
| Option 1 | 1.80 | 1.6 | 0.2 | 1.14 | 1.14 | - |
| Option 2 | 4.40 | 4.2 | 0.2 | - | | |
| Option 3 | 6.50 | 6.3 | 0.2 | - | | |

*Source: PwC elaboration (2009).*

Accordingly the results of the quantitative assessment of each policy option has been described through a qualitative indicator.

*Table 26: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Administrative costs** | - 3.0 | - 1.5 | - 2.25 |

*Source: PwC elaboration (2009).*

The most negative qualitative score (- 3) has been assigned to option 1 that is characterised by the highest administrative costs. Score to option 2 and 3 have been assigned proportionally.

### 1.5. Summary of Impacts

The following table provide a summary of the relative scores assigned to each option with regards to all types of impact.

*Table 27: Qualitative score attributed to the effectiveness of each option with regards to all type of impacts (relative scores ranging from 0 to 3)*

| Category | Type of impact | Sub-Type of impact | Policy Option | | |
|---|---|---|---|---|---|
| | | | 1 | 2 | 3 |
| Economic | Competition and opening of the rail market | Development of rail related services | 0.5 | 3 | 2.5 |
| | | Modal share of rail transport | 0.25 | 1.0 | 0.75 |
| | | New entrants in the rail freight market | 0.5 | 2.0 | 1.5 |
| | | Market share of new entrants in the rail freight market | 0.5 | 2.0 | 1.5 |
| | Cost of transport | Average operating costs for Railway Undertakings | 0.25 | 1.25 | 1.5 |
| | Administrative costs | Administrative costs for the EU and Member States and for the railway sector | -3.0 | -1.5 | -2.25 |
| Social | Employment | Employment within the rail industry | 0 | 0.50 | 0.25 |
| | Working conditions | Education and mobility of workers in the rail sector | 0 | 0.75 | 0.50 |
| Environmental | Environmental | Environmental Impacts | 0.25 | 1.0 | 0.75 |

*Source: PwC elaboration (2009).*

## 2. Comparing the options

### 2.1. Multicriteria analysis approach

According to the assumptions made and considering the figures of different impacts presented in the previous paragraphs, a Multi Criteria Analysis (MCA) has been developed in order to allow the comparisons of the three policy options proposed by the Commission against the base line scenario.

As far as the present Study is concerned, a MCA can be useful as there is a large amount of information on a number of different impacts.

The Multicriteria Analysis has been performed through of the following main steps:

- **identifying criteria to compare the options**: impacts assessed have been chosen as the set of measurable and comparable indicators.

- **scoring the effectiveness of each option in meeting the criteria**: scores vary between 0 and 3 (where 3 corresponds to the most positive impact/effect, or to the less negative); in order to normalise the values of the impacts/effects the following methodology was adopted:

- **Defining and assigning weights to each criterion:** to reflect its relative importance between different impacts represented;

- **Assigning of the final score to each policy option**: the following formula will be considered in order to perform the final score of each policy option:

$$V_{PO_X} = \sum_{i=1}^{I} W_i * V_i \qquad \text{for } X = A, B, C, D, D+$$

Where: "I" is the total number of impacts, "Wi" is the final weight assigned to the impact "i" and "Vi" is the relative score assigned to impact "i".

The following tables show the synthesis of the weights selected for all the impacts identified.

Macro Weights assigned reflect the relevance of each category of impacts in the framework of market opening and fostering competition of the rail market. In this context economic impacts have been assigned the highest score, since they measure the level market opening and the intermodal competitiveness of rail market.

As far as sub-weights are concerned:

- Economic impacts: 20% is assigned to criteria that measure the effects of the Policy Options on the competitiveness of rail market and to the administrative costs, 10% is assigned when the effect of the impact connected with the criterion is subject to the influence of external factor (i.e. willingness of new operators to enter the market, reduction of fees by facility managers or by IMs).

- Social impacts: 50% is given to both criteria, since it is assumed that they have they same relevance in the framework of the opening of the rail market and the creation of an internal market for rail.

*Table 28: Calculation of weights to be associated to each type of impact*

| Category | Macro Weight | Type of impact | Sub-Type of impact | Weight | Final weight Wi |
|---|---|---|---|---|---|
| Economic | 60% | Competition and opening of the rail market | Development of rail related services | 20% | 12.0% |
| | | | Modal share of rail transport | 20% | 12.0% |
| | | | New entrants in the rail freight market | 10% | 6.0% |
| | | | Market share of new entrants in the rail freight market | 20% | 12.0% |

| Category | Macro Weight | Type of impact | Sub-Type of impact | Weight | Final weight Wi |
|---|---|---|---|---|---|
| | | Cost of transport | Average operating costs for Railway Undertakings | 10% | 6.0% |
| | | Administrative costs | Administrative costs for the EU and Member States and for the railway sector | 20% | 12.0% |
| Social | 15% | Employment | Employment within the rail industry | 50% | 7.5% |
| | | Working conditions | Education and mobility of workers in the rail sector | 50% | 7.5% |
| Environmental | 25% | Environmental | Environmental Impacts | 100% | 25.0% |

## 2.2. Multi-criteria analysis outcomes

The table below shows the scoring of the single impacts for the three options and the relative weights, providing as well the results of the MCA in terms of score of each option, calculated as the weighted average of the scoring of the single impacts.

*Table 29: Qualitative score attributed to the effectiveness of each option with regards to all type of impacts (relative scores ranging from 0 to 3)*

| Category | Type of impact | Sub-Type of impact | Final weight | Policy Option | | |
|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 |
| Economic | Competition and opening of the rail market | Development of rail related services | 12.0% | 0.06 | 0,36 | 0,30 |
| | | Modal share of rail transport | 12.0% | 0.03 | 0,12 | 0,09 |
| | | New entrants in the rail freight market | 6.0% | 0.03 | 0,12 | 0,09 |
| | | Market share of new entrants in the rail freight market | 12.0% | 0.06 | 0,24 | 0,18 |
| | Cost of transport | Average operating costs for Railway Undertakings | 6.0% | 0.02 | 0,08 | 0,09 |
| | Administrative costs | Administrative costs for the EU and Member States and for the railway sector | 12.0% | -0.36 | -0,18 | -0,27 |
| Social | Employment | Employment within the rail industry | 7.5% | 0.00 | 0,04 | 0,02 |
| | Working conditions | Education and mobility of workers in the rail sector | 7.5% | 0.00 | 0,06 | 0,04 |
| Environmental | Environmental | Environmental Impacts | 25.0% | 0.06 | 0,25 | 0,19 |
| **Total** | | | **100%** | **-0.10** | **1.08** | **0.72** |

*Source: PwC elaboration (2009).*

According to the result of the analysis the most promising policy option is option 2 since it can assure highest overall positive effects.

## ANNEX IX: IMPACT ASSESSMENT OF THE MEASURE ON THE AVAILABILITY OF SERVICE FACILITIES

# 1. Analysis of impacts

Hereafter it is presented a qualitative assessment of the 3 alternative policy options with respect to the different economic social and environmental expected effects. Impacts are assessed against the baseline scenario and referred to the 2007-2020 timeframe.

Each effect and each option has been assigned a relative score ranging from 0 to 3. Options that are reckoned to be highly effective in generating a specific effect have been assigned the maximum relative score (3). If the measure under assessment is not reckoned to be considerably effective in achieving a specific effect (e.g. indirect effect) then also the most effective option has been assigned a low relative score.

As for the inadequate supply of rail related services, problems of non availability of such services affect the railway sector throughout the EU. They are particularly acute for international freight and passenger rail services and represent an important barrier to cross-border operations. Such trans-national aspects require action to be taken at the EU level.

The regulatory framework for rail market access in general and access to rail-related services in particular has been developed at EU level. Clarification and development of the existing acquis in order to create a level playing field for all EU railway undertakings can be better achieved by the Union than by MS individually. Removing problems of non availablity of rail-related services which have been identified as a main obstacle to market entry is essential for the completion of the internal rail market.

In accordance with the principle of subsidiarity as set out in Article 5 of the Treaty, the objective of the EU in revitalising Europe's railway sector and, in particular, improving the supply of and access to rail-related services through new "use-it-or-lease it" provisions, will be better reached by complementing the action already taken at EU level and by MS by EU action.

## 1.1. Economic Impacts

Competition and opening of the rail market

### *1.1.1. Development of rail related services*

According to the cause-effect analysis this measure can have a relevant impact on the development of rail-related services, for example in terms of number of service providers and of easier access to these services.

Option 2 is expected to be the most effective in assuring that new service providers will take over the management of service facilities that previously were unused. Whereas both option 1 and option 3 are not expected to be effective because other not wanted effects are likely to happen. For instance under these two options, when the services facility owner is an incumbent RU, it may opt for selling the land/asset in order to raise new funds that could be employed in new investments that will further empower its market position.

Accordingly the results of the assessment of these are described here.

*Table30: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Development of rail related services** | 0.5 | 3 | 0.5 |

*Source: PwC elaboration (2009).*

Options 2 and 3 are reckoned to be the one with the highest effectiveness respect to the opening of the rail-related service market.

### *1.1.2. Modal share of rail transport*

Modal shift from road transport to rail transport could be an indirect effect of this measure. A possible reduction of average operating costs for railway undertakings (cf. paragraph 1.1.5) may result in a slight decrease of costs of rail transport and in a modal shift from road transport to rail transport.

Cautiously, it is assumed that expected impacts of the 3 options are moderate. Considering that option 2 is the most effective, option 1 and option 3 are scarcely effective, the following relative scores were assigned.

*Table31: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Modal share of rail transport** | 0.25 | 1.0 | 0.25 |

*Source: PwC elaboration (2009).*

### *1.1.3. New entrants in the rail freight market*

Higher independence of the operator of the service facility from the rail transport provision can assure easier access rail related services for new entrants. Hence, it can indirectly concur to the opening of the market to new railway undertakings.

Having said that, and taking in account results of analysis of effectiveness of each policy option in acquiring measure objectives, the following relative scores were assigned.

*Table 32: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **New entrants in the rail freight market** | 0.5 | 2.0 | 0.5 |

*Source: PwC elaboration (2009).*

### *1.1.4. Market share of new entrants in the rail freight market*

Easier access to rail related services for new entrants will contribute to the development of new rail freight services, hence to increase the market share of new entrants.

Considering, also, the results of analysis of effectiveness of each policy option in acquiring measure objectives, the following relative scores were assigned.

*Table33: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Market share of new entrants in the rail freight market** | 0.5 | 2.0 | 0.5 |

*Source: PwC elaboration (2009).*

### *1.1.5. Average operating costs for Railway Undertakings*

The presence of new services facility managers and the higher availability of services will result in a decrease of services charges. Moreover service facilities would be easier accessible for new entrant RUs. Under these circumstances RUs, mostly new entrants, will experience saving on their average operating costs.

With this regards, expected impacts of this measure will also depend on the effectiveness of each options in achieving the objectives. Accordingly, the following qualitative assessment scores were assigned.

*Table34: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Average operating costs for Railway Undertakings** | 0.25 | 1.25 | 0.25 |

*Source: PwC elaboration (2009).*

### *1.1.6. Administrative costs for the EU and Member States and for the railway sector (RU, IM, SPO)*

The description of the impact is reported in paragraph 1.4.

## 1.2. Social Impacts

Employment

### *1.2.1. Employment within the rail industry*

Rationalising the full exploitation of existing services facilities is likely to generate positive effect in terms of employment. Once services facilities currently not in use will be run from new service facilities managers new workforce will be hired.

Option 2 can be quite effective in developing rail related services market, hence they are likely to generate some additional employment in the sector. Conversely, option 1 and 3 is not reckoned to be effective with that respect, hence additional employment generated will be almost negligible.

Accordingly the results of the assessment of these are described here.

*Table 35: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Employment within the rail industry** | 0.25 | 1.5 | 0.25 |

*Source: PwC elaboration (2009).*

Working conditions

### *1.2.2. Education and mobility of workers in the rail sector*

The increased demand in the provision of rail related services may lead to improved working conditions, and above all to an increased demand of skilled personnel, and staff prepared to higher mobility and to work abroad. Education, mobility and skill level are the key indicators for improved working conditions in this context.

The general demand for more skilled personnel leads in turn to a higher demand of training centres, and to a higher quality of training, more focused in the development of professional figures devoted in higher added value activities.

As it was articulated above, option 2 is likely to be quite effective in developing rail relating services and hence in boosting the demand of skilled personnel and of staff prepared to higher mobility. By contrast option 1 and 3 are not expected to produce any relevant impact with this respect.

The results of the assessment of these are described here.

*Table36: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Education and mobility of workers in the rail sector** | 0 | 1.0 | 0 |

*Source: PwC elaboration (2009).*

## 1.3. Environmental Impacts

As previously suggested this measure could potentially affect the modal share of rail transport. If a modal shift from road to rail transport will be induced from this measure than some positive environmental impacts will be generated.

More in detail benefits in the air quality could be obtained in terms of reductions of NOx and PM emissions. The impact on the climate change, estimated through the emission of $CO_2$, could also be positive. Moreover, benefits due to the reduction of energy consumption could arise.

By contrast, the modal shift may result in higher noise emission. In any case it is worth mentioning that, the disbenefits due to the increase of noise emissions are about 1/10 of the benefits achieved by reducing the emission of pollutants expressed as external costs.

In consideration of the scarce capacity of this measure by itself of assuring high modal shift, it was cautiously assumed that the expected impact for the 3 options would be moderate. Once again higher impacts are expected for option 2 that is expected to be more effective in enhancing modal shift.

*Table37: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Environmental Impacts** | 0.25 | 1.0 | 0.25 |

*Source: PwC elaboration (2009).*

## 1.4. Administrative costs

The introduction of specific provisions to rule the cases in which service facilities are not used could involve additional “one-off” and “recurrent” administrative costs both in the public sector (EU and MSs) and in the business sector (facility owners or managers) compared to the baseline scenario.

In particular, at EU level “one off “ costs will be related to the development of a preliminary analysis on different types of services facilities aimed at setting critical parameters to be used in order to identify condition under which “use it or lose it” rule should be applied, and to the development of specific guide lines related to financial penalty schemes to be used (option 1), procedures for publishing the operation of the facility for lease or rent (option 2) and for sale (option 3). Such “one off” costs could be sustained within the first year of the measure implementation programme.

Moreover, starting from the EU legal and operational guidelines, each MS will have to perform a number of activities:

- carrying out technical analysis with the aim of developing a "Service Facilities" register including main criteria and parameters to be used for applying the "use-it-or-lose-it" provision: in particular, key drivers will have to be identified for any market segment to assess critical conditions under which penalties should be applied (option 1), management of service should be leased or rent (option 2) asset should be sold (option 3).

- defining and setting financial penalties according to EU guidelines, identifying administrative obligations, operational procedures and the responsibilities to notify penalties (option 1).

- designing procedures for leasing /renting the management of service facilities (option 2) or for selling the assets (option 3).

Such “one off” costs could be sustained within the first/second year of the measure implementation programme.

The public sector (MS or RB) will also bear additional “recurrent” administrative costs compared with the baseline scenario due to the legal obligations to provide information to the affected parties on financial penalties applied (option 1).

EU and MS “recurrent” costs can be classified as “recurrent” administrative costs for the public sector related to information requirements.

As far as the business sector (facility owners or managers) is concerned, the following tasks have to be performed:

- when the owner of the assets is not the manager, the owner shall establish controlling and monitoring programmes to assess whether the facility is in use (option 2 and 3);

- where the service facility has not been in use for a specific period, the owner shall publish it for lease or rent (option 2) or for sale (option 3): these administrative costs depend on number of cases in which service facilities are not used.

Such administrative costs can be classified as “recurrent” administrative costs for the business sector related to information obligation.

From the arguments presented before, it can be inferred that due to the higher number of obligations to be considered and activities to be planned, option 2 and 3 could create heavier administrative burdens that option 1. Moreover, administrative costs related to option 3 could be considered higher that option 2, because of the higher complexity of the legal and operational procedures for sale the asset compared to the ones related to rent or lease mechanisms.

These administrative costs could range depending on several factors, in particular: types and number of the service facilities, number of cases in which service facilities are not used, service facility capacity and demand, total number of owners and users etc. As follows, an example of possible impacts in terms of administrative costs is presented, considering specific assumptions and simplifications. The approach and methodology adopted and the assumption assumed for the assessment of the administrative costs are presented in detail in the Annex XIII of this study.

*Table 38: Administrative Cost vs Base line scenario: "one-off", "recurrent" (M€)*

| | One Off Costs (M€) | | | Recurrent (M€/year)) | | |
|---|---|---|---|---|---|---|
| **Option 1** | **Total** | **Business sector** | **Public sector** | **Total** | **Business sector** | **Public sector** |
| Option 1 | 1.70 | - | 1.70 | 1.14 | - | 1.14 |
| Option 2 | 4.00 | - | 4.00 | 3.23 | 3.23 | 0 |
| Option 3 | 4.40 | - | 4.40 | 3.88 | 3.88 | 0 |

*Source: PwC elaboration (2009)*

Accordingly the results of the quantitative assessment of each policy option have been described through a qualitative indicator.

*Table 39: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Administrative costs** | - 1.0 | - 2.5 | - 3.0 |

*Source: PwC elaboration (2009).*

The most negative qualitative score (- 3) has been assigned to option 3 that is characterised by the highest administrative costs. Scores to option 1 and 2 have been assigned proportionally.

## 1.5. Summary of Impacts

The following table provide a summary of the relative scores assigned to each option with regards to all types of impact.

*Table 40: Qualitative score attributed to the effectiveness of each option with regards to all type of impacts (relative scores ranging from 0 to 3)*

| Category | Type of impact | Sub-Type of impact | Policy Option | | |
|---|---|---|---|---|---|
| | | | 1 | 2 | 3 |
| Economic | Competition and opening of the rail market | Development of rail related services | 0.50 | 3.00 | 0.50 |
| | | Modal share of rail transport | 0.25 | 1.00 | 0.25 |
| | | New entrants in the rail freight market | 0.50 | 2.00 | 0.50 |
| | | Market share of new entrants in the rail freight market | 0.50 | 2.00 | 0.50 |
| | Cost of transport | Average operating costs for Railway Undertakings | 0.25 | 1.25 | 0.25 |
| | Administrative costs | Administrative costs for the EU and Member States and for the railway sector | - 1.0 | - 2.5 | - 3.0 |
| Social | Employment | Employment within the rail industry | 0.25 | 1.50 | 0.25 |
| | Working conditions | Education and mobility of workers in the rail sector | 0.00 | 1.00 | 0.00 |
| Environmental | Environmental | Environmental Impacts | 0.25 | 1.00 | 0.25 |

*Source: PwC elaboration (2009)*

## 2. Comparing the options

### 2.1. Multi-criteria analysis approach

According to the assumptions made and considering the figures of different impacts presented in the previous paragraphs, a Multi Criteria Analysis (MCA) has been developed in order to allow the comparisons of the three policy options proposed by the Commission against the base line scenario.

As far as the present Study is concerned, a MCA can be useful as there is a large amount of information on a number of different impacts.

The Multi-criteria Analysis has been performed through of the following main steps:

- **identifying criteria to compare the options**: impacts assessed have been chosen as the set of measurable and comparable indicators.
- **scoring the effectiveness of each option in meeting the criteria**: scores vary between 0 and 3 (where 3 corresponds to the most positive impact/effect, or to the less negative); in order to normalise the values of the impacts/effects the following methodology was adopted:
    - **Defining and assigning weights to each criterion:** to reflect its relative importance between different impacts represented;

- **Assigning of the final score to each policy option**: the following formula will be considered in order to perform the final score of each policy option:

$$V_{PO_X} = \sum_{i=1}^{I} W_i * V_i \qquad \text{for } X = A, B, C, D, D+$$

Where: "I" is the total number of impacts, "Wi" is the final weight assigned to the impact "i" and "Vi" is the relative score assigned to impact "i".

The following tables show the synthesis of the weights selected for all the impacts identified.

Macro Weights assigned reflect the relevance of each category of impacts in the framework of market opening and fostering competition of the rail market. In this context economic impacts have been assigned the highest score, since they measure the level market opening and the intermodal competitiveness of rail market.

As far as sub-weights are concerned:

- Economic impacts: 20% is assigned to criteria that measure the effects of the Policy Options on the competitiveness of rail market and to the administrative costs, 10% is assigned when the effect of the impact connected with the criterion is subject to the influence of external factor (i.e. willingness of new operators to enter the market, reduction of fees by facility managers or by IMs).

- Social impacts: 50% is given to both criteria, since it is assumed that they have they same relevance in the framework of the opening of the rail market and the creation of an internal market for rail.

*Table 41: Calculation of weights to be associated to each type of impact*

| Category | Macro Weight | Type of impact | Sub-Type of impact | Weight | Final weight Wi |
|---|---|---|---|---|---|
| Economic | 60% | Competition and opening of the rail market | Development of rail related services | 20% | 12.0% |
| | | | Modal share of rail transport | 20% | 12.0% |
| | | | New entrants in the rail freight market | 10% | 6.0% |
| | | | Market share of new entrants in the rail freight market | 20% | 12.0% |
| | | Cost of transport | Average operating costs for Railway Undertakings | 10% | 6.0% |
| | | Administrative costs | Administrative costs for the EU and Member States and for the railway sector | 20% | 12.0% |
| Social | 15% | Employment | Employment within the rail industry | 50% | 7.5% |

| Category | Macro Weight | Type of impact | Sub-Type of impact | Weight | Final weight Wi |
|---|---|---|---|---|---|
| | | Working conditions | Education and mobility of workers in the rail sector | 50% | 7.5% |
| Environmental | 25% | Environmental | Environmental Impacts | 100% | 25.0% |

## 2.2. Multi-criteria analysis outcomes

The table below shows the scoring of the single impacts for the three options and the relative weights, providing as well the results of the MCA in terms of score of each option, calculated as the weighted average of the scoring of the single impacts.

*Table 42: Qualitative score attributed to the effectiveness of each option with regards to all type of impacts (relative scores ranging from 0 to 3)*

| Category | Type of impact | Sub-Type of impact | Final weight | Policy Option | | |
|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 |
| Economic | Competition and opening of the rail market | Development of rail related services | 12.0% | 0.06 | 0.36 | 0.06 |
| | | Modal share of rail transport | 12.0% | 0.03 | 0.12 | 0.03 |
| | | New entrants in the rail freight market | 6.0% | 0.03 | 0.12 | 0.03 |
| | | Market share of new entrants in the rail freight market | 12.0% | 0.06 | 0.24 | 0.06 |
| | Cost of transport | Average operating costs for Railway Undertakings | 6.0% | 0.02 | 0.08 | 0.02 |
| | Administrative costs | Administrative costs for the EU and Member States and for the railway sector | 12.0% | -0.12 | -0.30 | -0.36 |
| Social | Employment | Employment within the rail industry | 7.5% | 0.02 | 0.11 | 0.02 |
| | Working conditions | Education and mobility of workers in the rail sector | 7.5% | 0.00 | 0.08 | 0.00 |
| Environmental | Environmental | Environmental Impacts | 25.0% | 0.06 | 0.25 | 0.06 |
| **Total** | | | **100%** | **0.16** | **1.05** | **-0.08** |

*Source: PwC elaboration (2009).*

According to the result of the analysis the most promising policy option is option 2 since it can assure highest overall positive effects.

**ANNEX X: IMPACT ASSESSMENT OF THE MEASURE ON ACCOUNTING SEPARATION**

## 1. Analysis of impacts

Hereafter it is presented a qualitative assessment of the 3 alternative policy options with respect to the different economic social and environmental expected effects. Impacts are assessed against the baseline scenario and referred to the 2007-2020 timeframe.

Each effect and each option has been assigned a relative score ranging from 0 to 3. Options that are reckoned to be highly effective in generating a specific effect have been assigned the maximum relative score (3). If the measure under assessment is not reckoned to be considerably effective in achieving a specific effect (e.g. indirect effect) then also the most effective option has been assigned a low relative score.

As regards subsidiarity, problems of cross-subsidisation of transport services affect the railway sector throughout the EU. They affect in particular competition on the international freight and passenger rail markets. Such trans-national aspects require action to be taken at the EU level.

The existing regulatory framework for rail market access in general and accounting seperation in particular has been developed at EU level. Clarification and development of the existing acquis in order to create a level playing field for all EU railway undertakings can be better achieved by the Union than by MS individually. Removing problems of cross-subsidisation and inadequate regulatory oversight which have been identified as a main competition issue is essential for the completion of the internal rail market.

In accordance with the principle of subsidiarity as set out in Article 5 of the Treaty, the objective of the EU in revitalising Europe's railway sector and, in particular, cross-subsidisation affecting competition in the rail market through additional accounting separation requirements, will be better reached by complementing the action already taken at EU level and by MS by EU action.

### 1.1. Economic Impacts

Competition and opening of the rail market

### *1.1.1. Development of rail related services*

According to the cause-effect analysis the effect of this measure on the development of rail related service can be substantially considered negligible. For this reason each option has been assigned a null qualitative score.

*Table 43: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Development of rail related services** | 0 | 0 | 0 |

*Source: PwC elaboration (2009).*

### *1.1.2. Modal share of rail transport*

Modal shift from road transport to rail transport could be an indirect effect of this measure. Removing market distortion will increase market competition and will allow for the entry in the market of new RU. Higher competition is expected to have positive effect in terms of transport quality and transport cost. This may result in a modal shift from road transport to rail transport.

In addition, in case of option 2 and 3, a reduction of infrastructure charges is expected that may further positively affect the competitiveness or rail transport services against road transport.

Considering that option 2 and 3 are the most effective, and option 1 is slightly less effective, the following relative scores were assigned.

*Table 44: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Modal share of rail transport** | 0.75 | 1.0 | 1.0 |

*Source: PwC elaboration (2009).*

### *1.1.3. New entrants in the rail freight market*

As explained above, removing market distortion will increase market competition and will allow for the entry in the market of new RU. In addition, with option 2 and 3 a reduction of infrastructure charges is expected. This might further encourage new RUs to enter the market.

Accordingly, the following relative scores were assigned.

*Table 45: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **New entrants in the rail freight market** | 1.0 | 1.5 | 1.5 |

*Source: PwC elaboration (2009).*

### *1.1.4. Market share of new entrants in the rail freight market*

Once again removing market distortions will boost the opportunity of new entrant RUs to develop their business and to acquiring new market shares. The adoption of option 2 or 3 will also have positive effects on infrastructure charges and consequently it will facilitate the business of new entrants.

Accordingly, the following relative scores were assigned.

*Table 46: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Market share of new entrants in the rail freight market** | 1.0 | 1.5 | 1.5 |

*Source: PwC elaboration (2009).*

### *1.1.5. Average operating costs for Railway Undertakings*

Under option 2 and 3 the Regulatory Bodies are put in the condition of controlling the compliance with the charging principles of fees applied by IMs. This should result in a general reduction of infrastructure charges. Hence, railway undertakings will benefit of lower costs. Under option 1 these benefits are not expected.

Accordingly, the following qualitative assessment scores were assigned.

*Table 47: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Average operating costs for Railway Undertakings** | 0 | 1.5 | 1.5 |

*Source: PwC elaboration (2009).*

### *1.1.6. Administrative costs for the EU and Member States and for the railway sector (RU, IM, SPO)*

The description of the impact is reported in paragraph 1.4.

## 1.2. Social Impacts

Employment

### *1.2.1. Employment within the rail industry*

Market distortions will be removed and rail market will benefit from more competition. As previously argued, new RUs will enter the market and will have the opportunity of developing their business and acquiring market share. Furthermore the overall competitiveness of the sector will increase and a modal shift from road transport will be induced.

This is likely to generate positive effect in terms of employment since RUs will need to hire new workforce.

As previously explained, modal shift from road transport is expected to be higher under option 2 and 3, hence also employment impacts will be higher.

Accordingly the results of the assessment of these are described here.

*Table 48: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Employment within the rail industry** | 0.75 | 1.0 | 1.0 |

*Source: PwC elaboration (2009).*

Working conditions

### *1.2.2. Education and mobility of workers in the rail sector*

RUs that will expand their business acquiring market share from road transport will need additional workforce, in particular skilled personnel and staff prepared to higher mobility and to work abroad will be needed.

As it was articulated above, option 2 and 3 is likely to be quite effective in developing rail market whereas option 1 is slightly less effective because it doesn't entitle RB to require cost accounting data in an aggregated and standardised format. Hence impacts are expected to be higher for option 2 and 3 than for option 1.

The results of the assessment of these are described here.

*Table49: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Education and mobility of workers in the rail sector** | 0.75 | 1.0 | 1.0 |

*Source: PwC elaboration (2009).*

1.3. Environmental Impacts

As previously suggested this measure could potentially affect the modal share of rail transport.If a modal shift from road to rail transport will be induced from this measure than some positive environmental impacts will be generated.

More in detail benefits in the air quality could be obtained in terms of reductions of NOx and PM emissions. The impact on the climate change, estimated through the emission of $CO_2$, could also be positive. Moreover, benefits due to the reduction of energy consumption could arise.

By contrast, the modal shift may result in higher noise emission. In any case it is worth mentioning that, the disbenefits due to the increase of noise emissions are about 1/10 of the benefits achieved by reducing the emission of pollutants expressed as external costs.

In consideration of the scarce capacity of this measure by itself of assuring high modal shift, it was cautiously assumed that the expected impact for the 3 options would be moderate. Once again higher impacts are expected for option 2 that is expected to be more effective in enhancing modal shift.

*Table 50: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Environmental Impacts** | 0.25 | 1.0 | 0.25 |

*Source: PwC elaboration (2009).*

1.4. Administrative costs

The introduction of the measure could involve additional “one-off” and “recurrent” administrative costs both in the public sector (EU and MSs) and in the business sector compared to the baseline scenario.

Specifically, RB shall preliminary set and deliver to IMs and RUs (option 1) or to external auditor (option 2 and 3) audit criteria, requirements and approach (frequency, criteria, output, formats, responsibilities, auditor requirements, etc.). To this end, the following tasks will be performed by RB:

- identification of clear target, contents and aim of the audits: different options will involve different audit contents (option 1, 2 and 3);

- identification of "regulatory account" with recommended minimum data to be provided relating to cost elements and performance parameters (option 2) or identification of "regulatory account comprehensive unified set of data" and additional performance parameter (option 3) ;

- define frequency, responsibility and timing (option 2 and 3) for carrying out audit or for initiating external audit with RU/IM and set requirements for the final results with the identification of report formats.

In option 2 and 3, RB shall design information flow between the auditor (external auditor or RB) and IM/RU.

All costs described above may be referred to as additional (compared to the baseline scenario) “one-off” administrative costs for the public sector due to information obligations. It is expected that they will be sustained within the first year of the initiative.

In order to make the measure become operational, under option 1 IM shall design tailor-made procedures to provide information to the auditor, with consequent additional administrative costs compared to the baseline scenario. Such costs may be referred to as additional (compared to the baseline scenario) “one-off” administrative costs for the business sector due to information obligations. It is expected that they will be sustained within the first year of the initiative.

Moreover, additional (against the baseline scenario) “recurrent” administrative costs are expected for the development of audit activities and reports.

As far as option 1 is concerned, such costs will be borne by the IM/RU, thus they can be referred to as additional “recurrent” administrative costs for the business sector related to information obligations.

As far as option 2 and 3 are concerned, audits could be carried out by the RB (option 2 and 3) or could be outsourced to external providers by the RB (option 2). In all cases related costs may be referred to as additional “recurrent” administrative costs for the public sector related to information obligations.

It is important to underline such costs are expected to be higher in option 2 and 3 than in option 1 due to the higher cost elements and performance parameters to be checked, analysed, and summarised.

Finally, under all options RBs will require reinforcing their operational structures (compared to the baseline scenario) in order to manage the increased information flow and to supervise the audit programmes. Administrative costs related to such activities may be referred to as “recurrent” costs for public sector.

The following table presents the main figures of "one-off" and "recurrent" administrative costs against the baseline scenario due to the implementation of the measure.

*Table 51: Administrative Cost vs Base line scenario: "one-off", "recurrent" (M€)*

| | One Off Costs (M€) | | | Recurrent (M€/year) | | |
|---|---|---|---|---|---|---|
| **Option 1** | **Total** | **Business sector** | **Public sector** | **Total** | **Business sector** | **Public sector** |
| Option 1 | 1.83 | 0.33 | 1.50 | 0.59 | 0.13 | 0.46 |
| Option 2 | 2.62 | 0.33 | 2.29 | 0.70 | 0.05 | 0.65 |
| Option 3 | 3.01 | 0.33 | 2.68 | 0.87 | 0.08 | 0.79 |

*Source: PwC elaboration (2009)*

Accordingly the results of the quantitative assessment of each policy option has been described through a qualitative indicator.

*Table 52: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Administrative costs** | - 2.0 | - 2.5 | - 3.0 |

*Source: PwC elaboration (2009).*

The most negative qualitative score (- 3) has been assigned to option 3 that is characterised by the highest administrative costs. Scores to option 1 and 2 have been assigned proportionally.

## 1.5. Summary of Impacts

The following table provide a summary of the relative scores assigned to each option with regards to all types of impact.

*Table 53: Qualitative score attributed to the effectiveness of each option with regards to all type of impacts (relative scores ranging from 0 to 3)*

| Category | Type of impact | Sub-Type of impact | Policy Option | | |
|---|---|---|---|---|---|
| | | | 1 | 2 | 3 |
| Economic | Competition and opening of the rail market | Development of rail related services | 0.00 | 0.00 | 0.00 |
| | | Modal share of rail transport | 0.75 | 1.00 | 1.00 |
| | | New entrants in the rail freight market | 1.00 | 1.50 | 1.50 |
| | | Market share of new entrants in the rail freight market | 1.00 | 1.50 | 1.50 |
| | Cost of transport | Average operating costs for Railway Undertakings | 0.00 | 1.50 | 1.50 |
| | Administrative costs | Administrative costs for the EU and Member States and for the railway sector | - 2.0 | - 2.5 | - 3.0 |
| Social | Employment | Employment within the rail industry | 0.75 | 1.00 | 1.00 |
| | Working conditions | Education and mobility of workers in the rail sector | 0.75 | 1.00 | 1.00 |
| Environmental | Environmental | Environmental Impacts | 0.75 | 1.00 | 1.00 |

*Source: PwC elaboration (2009).*

## 2. Comparing the options

### 2.1. Multi-criteria analysis approach

According to the assumptions made and considering the figures of different impacts presented in the previous paragraphs, a Multi Criteria Analysis (MCA) has been developed in order to allow the comparisons of the three policy options proposed by the Commission against the base line scenario.

As far as the present Study is concerned, a MCA can be useful as there is a large amount of information on a number of different impacts.

The Multi-criteria Analysis has been performed through of the following main steps:

- **identifying criteria to compare the options**: impacts assessed have been chosen as the set of measurable and comparable indicators.
- **scoring the effectiveness of each option in meeting the criteria**: scores vary between 0 and 3 (where 3 corresponds to the most positive impact/effect, or to the less negative); in order to normalise the values of the impacts/effects the following methodology was adopted:
    - **Defining and assigning weights to each criterion:** to reflect its relative importance between different impacts represented;

- **Assigning of the final score to each policy option**: the following formula will be considered in order to perform the final score of each policy option:

$$V_{PO_X} = \sum_{i=1}^{I} W_i * V_i \qquad \text{for } X = A, B, C, D, D+$$

Where: "I" is the total number of impacts, "Wi" is the final weight assigned to the impact "i" and "Vi" is the relative score assigned to impact "i".

The following tables show the synthesis of the weights selected for all the impacts identified.

Macro Weights assigned reflect the relevance of each category of impacts in the framework of market opening and fostering competition of the rail market. In this context economic impacts have been assigned the highest score, since they measure the level market opening and the intermodal competitiveness of rail market.

As far as sub-weights are concerned:

- Economic impacts: 20% is assigned to criteria that measure the effects of the Policy Options on the competitiveness of rail market and to the administrative costs, 10% is assigned when the effect of the impact connected with the criterion is subject to the influence of external factor (i.e. willingness of new operators to enter the market, reduction of fees by facility managers or by IMs).

- Social impacts: 50% is given to both criteria, since it is assumed that they have they same relevance in the framework of the opening of the rail market and the creation of an internal market for rail.

*Table 54: Calculation of weights to be associated to each type of impact*

| Category | Macro Weight | Type of impact | Sub-Type of impact | Weight | Final weight Wi |
|---|---|---|---|---|---|
| Economic | 60% | Competition and opening of the rail market | Development of rail related services | 20% | 12.0% |
| | | | Modal share of rail transport | 20% | 12.0% |
| | | | New entrants in the rail freight market | 10% | 6.0% |
| | | | Market share of new entrants in the rail freight market | 20% | 12.0% |
| | | Cost of transport | Average operating costs for Railway Undertakings | 10% | 6.0% |
| | | Administrative costs | Administrative costs for the EU and Member States and for the railway sector | 20% | 12.0% |
| Social | 15% | Employment | Employment within the rail industry | 50% | 7.5% |
| | | Working conditions | Education and mobility of workers in the rail sector | 50% | 7.5% |
| Environmental | 25% | Environmental | Environmental Impacts | 100% | 25.0% |

## 2.2. Multi-criteria analysis outcomes

The table below shows the scoring of the single impacts for the three options and the relative weights, providing as well the results of the MCA in terms of score of each option, calculated as the weighted average of the scoring of the single impacts.

*Table 55: Qualitative score attributed to the effectiveness of each option with regards to all type of impacts (relative scores ranging from 0 to 3)*

| Category | Type of impact | Sub-Type of impact | Final weight | Policy Option | | |
|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 |
| Economic | Competition and opening of the rail market | Development of rail related services | 12.0% | 0.00 | 0.00 | 0.00 |
| | | Modal share of rail transport | 12.0% | 0.09 | 0.12 | 0.12 |
| | | New entrants in the rail freight market | 6.0% | 0.06 | 0.09 | 0.09 |
| | | Market share of new entrants in the rail freight market | 12.0% | 0.12 | 0.18 | 0.18 |
| | Cost of transport | Average operating costs for Railway Undertakings | 6.0% | 0.00 | 0.09 | 0.09 |
| | Administrative costs | Administrative costs for the EU and Member States and for the railway sector | 12.0% | -0.24 | -0.30 | -0.36 |
| Social | Employment | Employment within the rail industry | 7.5% | 0.06 | 0.08 | 0.08 |
| | Working conditions | Education and mobility of workers in the rail sector | 7.5% | 0.06 | 0.08 | 0.08 |
| Environmental | Environmental | Environmental Impacts | 25.0% | 0.19 | 0.25 | 0.25 |
| **Total** | | | **100%** | **0.33** | **0.58** | **0.52** |

*Source: PwC elaboration (2009).*

According to the result of the analysis the most promising policy option is option 2 since it can assure highest overall positive effects.

**ANNEX XI: IMPACT ASSESSMENT OF THE MEASURE ON SUPPORT TO OPERATORS IN CASE OF DISCRIMINATORY TREATMENT**

## 1. Analysis of impacts

Hereafter it is presented a qualitative assessment of the 3 alternative policy options with respect to the different economic social and environmental expected effects. Impacts are assessed against the baseline scenario and referred to the 2007-2020 timeframe.

Each effect and each option has been assigned a relative score ranging from 0 to 3. Options that are reckoned to be highly effective in generating a specific effect have been assigned the maximum relative score (3). If the measure under assessment is not reckoned to be considerably effective in achieving a specific effect (e.g. indirect effect) then also the most effective option has been assigned a low relative score.

As regards subsidiarity, problems of discriminations in the supply of rail related service affect the railway sector throughout the EU. They are particularly acute for international freight and passenger rail services and represent a barrier to cross-border operations. Such trans-national aspects require action to be taken at the EU level.

The regulatory framework for rail market access in general and access to rail-related services in particular has been developed at EU level. Clarification and development of the existing acquis in order to create a level playing field for all EU railway undertakings can be better achieved by the Union than by MS individually. Removing problems of lack of regulatory oversight on the supply of rail-related services which have been identified as a main obstacle to market entry is essential for the completion of the internal rail market.

In accordance with the principle of subsidiarity as set out in Article 5 of the Treaty, the objective of the EU in revitalising Europe's railway sector and, in particular, ensuring adequate and non discriminatory access to rail-related services through the extension of RB competences, will be better reached by complementing the action already taken at EU level and by MS by EU action.

### 1.1. Economic Impacts

Competition and opening of the rail market

#### *1.1.1. Development of rail related services*

According to the cause-effect analysis the effect of this measure on the development of rail related service can be substantially considered negligible. For this reason each option has been assigned a null qualitative score.

*Table 56: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Development of rail related services** | 0 | 0 | 0 |

*Source: PwC elaboration (2009).*

### *1.1.2. Modal share of rail transport*

Modal shift from road transport to rail transport could be an indirect effect of this measure. Removing market distortion and ensuring equal treatment to all RUs in accessing rail services facilities will increase market competition and will allow for the entry in the market of new RUs. Higher competition is expected to have positive effect in terms of transport quality and transport prices. This may result in a potential modal shift from road transport to rail transport.

Considering that option 2 is the most effective, option 3 is slightly less effective than option 2 and option 1 is the least effective, the following relative scores were assigned.

*Table 57: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Modal share of rail transport** | 0.25 | 1.0 | 0.75 |

*Source: PwC elaboration (2009).*

### *1.1.3. New entrants in the rail freight market*

As explained above, removing market distortion by ensuring a fair level play field to all RUs will increase market competition and will allow for the entry in the market of new RUs.

In consideration of the effectiveness of each policy option, the following relative scores were assigned.

*Table 58: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **New entrants in the rail freight market** | 0.5 | 1.5 | 1.25 |

*Source: PwC elaboration (2009).*

### *1.1.4. Market share of new entrants in the rail freight market*

Once again removing market distortions will boost the opportunity of new entrant RUs to develop their business and to acquiring new market shares.

In consideration of the effectiveness of each policy option, the following relative scores were assigned.

*Table 59: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Market share of new entrants in the rail freight market** | 1.0 | 1.5 | 1.5 |

*Source: PwC elaboration (2009).*

### *1.1.5. Average operating costs for Railway Undertakings*

Under option 2 and 3 the Regulatory Bodies are put in the condition of ruling on all the cases of discrimination on rail related service matters. Under these options, the RBs will be empower to intervene in case a RU receive a discriminatory treatment (fees, timing, etc.) for accessing a services facility. This will positively affect the average operating costs of RUs.

Conversely, under option 1 not all cases of discrimination would be effectively ruled. Accordingly, the following qualitative assessment scores were assigned.

*Table 60: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Average operating costs for Railway Undertakings** | 0 | 1.5 | 1.5 |

*Source: PwC elaboration (2009).*

### *1.1.6. Administrative costs for the EU and Member States and for the railway sector (RU, IM, SPO)*

The description of the impact is reported in paragraph 1.4..

## 1.2. Social Impacts

Employment

*1.2.1. Employment within the rail industry*

Market distortions will be removed and rail market will benefit from more competition. As previously argued, new RUs will enter the market and will have the opportunity of developing their business and acquiring market share. Furthermore the overall competitiveness of the sector will increase and a modal shift from road transport will be induced.

This is likely to generate positive effect in terms of employment since RUs will need to hire new workforce.

*Table 61: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Employment within the rail industry** | 0.25 | 1.0 | 0.75 |

*Source: PwC elaboration (2009).*

Working conditions

*1.2.2. Education and mobility of workers in the rail sector*

RUs that will expand their business acquiring market share from road transport will need additional workforce, in particular skilled personnel and staff prepared to higher mobility and to work abroad will be needed.

As previously explained, option 2 is likely to be quite effective in developing rail market, whereas option 3 and 1 are respectively less effective. Hence positive impacts on working condition are expected to be higher for option 2 than for option 3 and 1.

The results of the assessment of these are described here.

*Table 62: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Education and mobility of workers in the rail sector** | 0.25 | 1.0 | 0.75 |

*Source: PwC elaboration (2009).*

1.3. Environmental Impacts

As previously suggested this measure could potentially affect the modal share of rail transport. If a modal shift from road to rail transport will be induced from this measure than some positive environmental impacts will be generated.

More in detail benefits in the air quality could be obtained in terms of reductions of NOx and PM emissions. The impact on the climate change, estimated through the emission of $CO_2$, could also be positive. Moreover, benefits due to the reduction of energy consumption could arise.

By contrast, the modal shift may result in higher noise emission. In any case it is worth mentioning that, the disbenefits due to the increase of noise emissions are about 1/10 of the benefits achieved by reducing the emission of pollutants expressed as external costs.

In consideration of the scarce capacity of this measure by itself of assuring high modal shift, it was cautiously assumed that the expected impact for the 3 options would be moderate. Once again higher impacts are expected for option 2 that is expected to be more effective in enhancing modal shift.

*Table 63: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Environmental Impacts** | 0.25 | 1.0 | 0.75 |

*Source: PwC elaboration (2009).*

### 1.4. Administrative costs

The implementation of the measure involves additional administrative costs for the public sector (MS or RB) compared to the baseline scenario.

In particular, the implementation of option 1 will involve a preliminary analysis at EU level in order to clearly identify the boundaries between the competences of the Regulatory Body and those of the Competition Authority and to define the guidelines for the implementation of the measure at MS level that clarify scope the aim of emergency procedures (for the “fast track” interventions). Such costs may be referred to as “one off” costs for the public sector related to information requirements.

Basing on the results of the preliminary analysis, the implementation of option 1 will require MS to reinforce existing operational structures of Competition Authorities in order to carry out the new task. Administrative costs related to such activities may be referred to as “recurrent” costs for public sector related to information requirements.

Again, the implementation of option 2 and 3 will involve a preliminary analysis at EU level in order to clearly identify the boundaries between the competences of the Regulatory Body and those of the Competition Authority, to clearly define the “new” scope and competences of the RB and to define the guidelines for the implementation of the measure at MS level. In case of option 3, the guidelines should also clarify the scope and the aim of emergency procedures (for the “ex-ante” interventions). Such costs may be referred to as additional (compared to the baseline) “one off” costs for the public sector related to information requirements.

Basing on the results of the preliminary analysis, the implementation of option 2 and 3 will require MS to reinforce existing operational structures of Regulatory Bodies in order to carry out the new task. Administrative costs related to such activities may be referred to as "recurrent" costs for public sector related to information requirements.

Since the extension of the scope of the competences of the RBs will be larger than that of the Competition Authorities "recurrent" additional administrative costs incurred are expected to be higher than in option 1 (for the same reason, administrative costs incurred under option 3 are expected to be higher than in option 2).

The following table presents the main figures of "one-off" and "recurrent" administrative costs against the baseline scenario due to the implementation of the measures 25.

*Table 64: Administrative Cost vs Base line scenario: "one-off", "recurrent" (M€)*

| | One Off Costs (M€) | | | Recurrent (M€/year) | | |
|---|---|---|---|---|---|---|
| **Option 1** | **Total** | **Business sector** | **Public sector** | **Total** | **Business sector** | **Public sector** |
| Option 1 | 0.09 | - | 0.09 | 1.08 | - | 1.08 |
| Option 2 | 0.09 | - | 0.09 | 2.37 | - | 2.37 |
| Option 3 | 0.09 | - | 0.09 | 3.08 | - | 3.08 |

*Source: PwC elaboration (2009)*

Accordingly the results of the quantitative assessment of each policy option has been described through a qualitative indicator.

*Table 65: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| **Administrative costs** | - 1.25 | - 2.5 | - 3.0 |

*Source: PwC elaboration (2009).*

The most negative qualitative score (- 3) has been assigned to option 3 that is characterised by the highest administrative costs. Scores to option 1 and 2 have been assigned proportionally.

## 1.5. Summary of Impacts

The following table provide a summary of the relative scores assigned to each option with regards to all types of impact.

*Table 66: Qualitative score attributed to the effectiveness of each option with regards to all type of impacts (relative scores ranging from 0 to 3)*

| Category | Type of impact | Sub-Type of impact | Policy Option | | |
|---|---|---|---|---|---|
| | | | 1 | 2 | 3 |
| Economic | Competition and opening of the rail market | Development of rail related services | 0.00 | 0.00 | 0.00 |
| | | Modal share of rail transport | 0.25 | 1.00 | 0.75 |
| | | New entrants in the rail freight market | 0.50 | 1.50 | 1.25 |
| | | Market share of new entrants in the rail freight market | 0.50 | 1.50 | 1.25 |
| | Cost of transport | Average operating costs for Railway Undertakings | 0.50 | 1.50 | 1.25 |
| | Administrative costs | Administrative costs for the EU and Member States and for the railway sector | -1.25 | -2.50 | -3.00 |
| Social | Employment | Employment within the rail industry | 0.25 | 1.00 | 0.75 |
| | Working conditions | Education and mobility of workers in the rail sector | 0.25 | 1.00 | 0.75 |
| Environmental | Environmental | Environmental Impacts | 0.25 | 1.00 | 0.75 |

*Source: PwC elaboration (2009).*

## 2. Comparing the options

### 2.1. Multi-criteria analysis approach

According to the assumptions made and considering the figures of different impacts presented in the previous paragraphs, a Multi Criteria Analysis (MCA) has been developed in order to allow the comparisons of the three policy options proposed by the Commission against the base line scenario.

As far as the present Study is concerned, a MCA can be useful as there is a large amount of information on a number of different impacts.

The Multicriteria Analysis has been performed through of the following main steps:

- **identifying criteria to compare the options**: impacts assessed have been chosen as the set of measurable and comparable indicators.
- **scoring the effectiveness of each option in meeting the criteria**: scores vary between 0 and 3 (where 3 corresponds to the most positive impact/effect, or to the less negative); in order to normalise the values of the impacts/effects the following methodology was adopted:
    - **Defining and assigning weights to each criterion:** to reflect its relative importance between different impacts represented;

- **Assigning of the final score to each policy option**: the following formula will be considered in order to perform the final score of each policy option:

$$V_{PO_X} = \sum_{i=1}^{I} W_i * V_i \qquad \text{for } X = A, B, C, D, D+$$

Where: "I" is the total number of impacts, "Wi" is the final weight assigned to the impact "i" and "Vi" is the relative score assigned to impact "i".

The following tables show the synthesis of the weights selected for all the impacts identified.

Macro Weights assigned reflect the relevance of each category of impacts in the framework of market opening and fostering competition of the rail market. In this context economic impacts have been assigned the highest score, since they measure the level market opening and the intermodal competitiveness of rail market.

As far as sub-weights are concerned:

- Economic impacts: 20% is assigned to criteria that measure the effects of the Policy Options on the competitiveness of rail market and to the administrative costs, 10% is assigned when the effect of the impact connected with the criterion is subject to the influence of external factor (i.e. willingness of new operators to enter the market, reduction of fees by facility managers or by IMs).

- Social impacts: 50% is given to both criteria, since it is assumed that they have they same relevance in the framework of the opening of the rail market and the creation of an internal market for rail.

*Table 67: Calculation of weights to be associated to each type of impact*

| Category | Macro Weight | Type of impact | Sub-Type of impact | Weight | Final weight Wi |
|---|---|---|---|---|---|
| Economic | 60% | Competition and opening of the rail market | Development of rail related services | 20% | 12.0% |
| | | | Modal share of rail transport | 20% | 12.0% |
| | | | New entrants in the rail freight market | 10% | 6.0% |
| | | | Market share of new entrants in the rail freight market | 20% | 12.0% |
| | | Cost of transport | Average operating costs for Railway Undertakings | 10% | 6.0% |
| | | Administrative costs | Administrative costs for the EU and Member States and for the railway sector | 20% | 12.0% |
| Social | 15% | Employment | Employment within the rail industry | 50% | 7.5% |
| | | Working conditions | Education and mobility of workers in the rail sector | 50% | 7.5% |
| Environmental | 25% | Environmental | Environmental Impacts | 100% | 25.0% |

## 2.2. Multi-criteria analysis outcomes

The table below shows the scoring of the single impacts for the three options and the relative weights, providing as well the results of the MCA in terms of score of each option, calculated as the weighted average of the scoring of the single impacts.

*Table 68: Qualitative score attributed to the effectiveness of each option with regards to all type of impacts (relative scores ranging from 0 to 3)*

| Category | Type of impact | Sub-Type of impact | Final weight | Policy Option | | |
|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 |
| Economic | Competition and opening of the rail market | Development of rail related services | 12.0% | 0.00 | 0.00 | 0.00 |
| | | Modal share of rail transport | 12.0% | 0.03 | 0.12 | 0.09 |
| | | New entrants in the rail freight market | 6.0% | 0.03 | 0.09 | 0.08 |
| | | Market share of new entrants in the rail freight market | 12.0% | 0.06 | 0.18 | 0.15 |
| | Cost of transport | Average operating costs for Railway Undertakings | 6.0% | 0.03 | 0.09 | 0.08 |
| | Administrative costs | Administrative costs for the EU and Member States and for the railway sector | 12.0% | -0.15 | -0.30 | -0.36 |
| Social | Employment | Employment within the rail industry | 7.5% | 0.02 | 0.08 | 0.06 |
| | Working conditions | Education and mobility of workers in the rail sector | 7.5% | 0.02 | 0.08 | 0.06 |
| Environmental | Environmental | Environmental Impacts | 25.0% | 0.06 | 0.25 | 0.19 |
| **Total** | | | **100%** | **0.10** | **0.58** | **0.33** |

*Source: PwC elaboration (2009).*

According to the result of the analysis the most promising policy option is option 2 since it can assure highest overall positive effects.

## ANNEX XII : IMPACT ASSESSMENT OF THE MEASURE ON THE INDEPENDENCE OF REGULATORY BODIES

# 1. Analysis of impacts

Hereafter it is presented a qualitative assessment of the 3 alternative policy options with respect to the different economic social and environmental expected effects. Impacts are assessed against the baseline scenario and referred to the 2007-2020 timeframe.

Each effect and each option has been assigned a relative score ranging from 0 to 3. Options that are reckoned to be highly effective in generating a specific effect have been assigned the maximum relative score (3). If the measure under assessment is not reckoned to be considerably effective in achieving a specific effect (e.g. indirect effect) then also the most effective option has been assigned a low relative score.

As regards subsidiarity, problems of inadequate regulatory oversight of the rail market affect the railway sector throughout the EU. They have in particular an influence on international freight and passenger rail services and represent a barrier to cross-border operations. Such trans-national aspects require action to be taken at the EU level.

The regulatory framework for rail market access in general and rail market regulatory oversight in particular has been developed at EU level. Clarification and development of the existing acquis in order to create a level playing field for all EU railway undertakings can be better achieved by the Union than by MS individually. Removing problems of inadequate regulatory oversight which have been identified as a main obstacle to market entry is essential for the completion of the internal rail market.

In accordance with the principle of subsidiarity as set out in Article 5 of the Treaty, the objective of the EU in revitalising Europe's railway sector and, in particular, strengthening the monitoring of the rail market, will be better reached by complementing the action already taken at EU level and by MS by EU action.

## 1.1. Economic Impacts

Competition and opening of the rail market

### *1.1.1. Development of rail related services*

The effect of this measure on the development of rail related service can be substantially considered negligible. For this reason each option has been assigned a null qualitative score.

*Table 69: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | |
|---|---|---|
| | 1 | 2 |
| **Development of rail related services** | 0 | 0 |

*Source: PwC elaboration (2009).*

### *1.1.2. Modal share of rail transport*

Modal shift from road transport to rail transport could be an indirect effect of this measure. Higher competition (cf. paragraph 1.1.3) is expected to have positive effect in terms of transport quality and transport prices. This may result in a potential modal shift from road transport to rail transport.

Considering that options 1 and 2 are reckoned to have same effectiveness in assuring satisfactory independence to the Regulatory Body, the following relative scores were assigned.

*Table 70: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | |
|---|---|---|
| | 1 | 2 |
| **Modal share of rail transport** | 1.0 | 1.0 |

*Source: PwC elaboration (2009).*

### *1.1.3. New entrants in the rail freight market*

Full independence of regulatory Body from infrastructure manager and incumbent RU is important requirement for ensuring a fair level play field to all RUs. Furthermore, the application of this measure will ensure equal administrative capacity of Regulatory Bodies across EU.

Removing market distortion and ensuring equal treatment to all RUs in accessing rail services facilities will increase market competition and will allow for the entry in the market of new RUs.

In consideration of the effectiveness of each policy option, the following relative scores were assigned.

*Table 71: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | |
|---|---|---|
| | 1 | 2 |
| **New entrants in the rail freight market** | 1.5 | 1.5 |

*Source: PwC elaboration (2009).*

### *1.1.4. Market share of new entrants in the rail freight market*

Once again removing market distortions will boost the opportunity of new entrant RUs to develop their business and to acquiring new market shares.

In consideration of the effectiveness of each policy option, the following relative scores were assigned.

*Table 72: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | |
|---|---|---|
| | 1 | 2 |
| **Market share of new entrants in the rail freight market** | 1.5 | 1.5 |

*Source: PwC elaboration (2009).*

### *1.1.5. Average operating costs for Railway Undertakings*

The Regulatory Body will have the required independence for intervene in all cases where infrastructure charges are not properly set or a services facility is not made available without discrimination, etc. All this will positively impact the operating costs of new entrant RUs.

In consideration of the effectiveness of each policy option, the following relative scores were assigned.

*Table 73: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | |
|---|---|---|
| | 1 | 2 |
| **Average operating costs for Railway Undertakings** | 1.5 | 1.5 |

*Source: PwC elaboration (2009).*

### *1.1.6. Administrative costs for the EU and Member States and for the railway sector (RU, IM, SPO)*

The description of the impact is reported in paragraph 1.4.

## 1.2. Social Impacts

Employment

### *1.2.1. Employment within the rail industry*

Market distortions will be removed and rail market will benefit from more competition. As previously argued, new RUs will enter the market and will have the opportunity of

developing their business and acquiring market share. Furthermore the overall competitiveness of the sector will increase and a modal shift from road transport will be induced.

This is likely to generate positive effect in terms of employment since RUs will need to hire new workforce. In consideration of the effectiveness of each policy option, the following relative scores were assigned.

*Table 74: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | |
|---|---|---|
| | 1 | 2 |
| **Employment within the rail industry** | 1.0 | 1.0 |

*Source: PwC elaboration (2009).*

Working conditions

*1.2.2. Education and mobility of workers in the rail sector*

RUs that will expand their business acquiring market share from road transport will need additional workforce, in particular skilled personnel and staff prepared to higher mobility and to work abroad will be needed.

In consideration of the effectiveness of each policy option, the following relative scores were assigned.

*Table 75: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | |
|---|---|---|
| | 1 | 2 |
| **Education and mobility of workers in the rail sector** | 1.0 | 1.0 |

*Source: PwC elaboration (2009).*

1.3. Environmental Impacts

As previously suggested this measure could potentially affect the modal share of rail transport. If a modal shift from road to rail transport will be induced from this measure than some positive environmental impacts will be generated.

More in detail benefits in the air quality could be obtained in terms of reductions of NOx and PM emissions. The impact on the climate change, estimated through the emission of $CO_2$, could also be positive. Moreover, benefits due to the reduction of energy consumption could arise.

By contrast, the modal shift may result in higher noise emission. In any case it is worth mentioning that, the disbenefits due to the increase of noise emissions are about 1/10 of the benefits achieved by reducing the emission of pollutants expressed as external costs.

In consideration of the effectiveness of each policy option, the following relative scores were assigned.

*Table 76: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | |
|---|---|---|
| | 1 | 2 |
| **Environmental Impacts** | 1.0 | 1.0 |

*Source: PwC elaboration (2009).*

## 1.4. Administrative costs

The implementation of the measure involves additional administrative costs for the public sector (EU and MS) compared to the baseline scenario.

In particular, the implementation of both options 1 and 2 will involve a preliminary analysis (at EU level) in order to identify the legal and organisational solutions to make Regulatory Bodies (at least) functionally independent from the public authority that exercise the ownership rights over the incumbent railway undertaking. Following the establishment of independence requirements and on the base of the situation at country level, the implementation of option 1 will involve effort by MS to define procedures (i.e. information flows, information obligation, etc.), with the aim of ensuring transparency of the functioning of RBs and compliance with the independence requirements. Operational action plans shall be developed by MS for a fast implementation of the measure (meeting with all the competent authority involved and affected by operational and legislative measures may be required).

Costs related to the activities described, can be referred to as “one-off” additional administrative costs for the public sector related to information requirements are expected to be sustained within the first year of the programme.

Moreover, for the implementation of option 2, MS shall establish a single (stand alone) national Regulatory Body. As far as option 2 is concerned, in order to make Regulatory Bodies independent, MS may turn a division/area of an RB into a separate entity. In both cases, it will involve additional “recurrent” administrative costs compared to the baseline scenario, due to the need of additional flow of information (i.e. reporting and notifications between competent authority, information to ensure transparency, etc.).

Such costs may be referred to as “recurrent” administrative costs for the public sector related to information requirements and are expected to be higher in option 2 that in

option 1, due to the major number of cases that would require to be aligned with the new requirements.

The following table presents the main figures of "one-off" and "recurrent" administrative costs against the baseline scenario due to the implementation of the measures 26.

*Table 77: Administrative Cost vs Base line scenario: "one-off", "recurrent" (M€)*

| | One Off Costs (M€) | | | Recurrent (M€/year) | | |
|---|---|---|---|---|---|---|
| **Option 1** | **Total** | **Business sector** | **Public sector** | **Total** | **Business sector** | **Public sector** |
| Option 1 | 0,31 | - | 0,31 | 2,69 | - | 2,69 |
| Option 2 | 0,20 | - | 0,20 | 4,74 | - | 4,74 |

*Source: PwC elaboration (2009)*

Accordingly, the results of the quantitative assessment of each policy option have been described through a qualitative indicator.

*Table 78: Qualitative score attributed to the effectiveness (relative scores ranging from 0 to 3)*

| Type of impact | Policy Option | |
|---|---|---|
| | 1 | 2 |
| **Administrative costs** | - 1.75 | - 3.0 |

*Source: PwC elaboration (2009).*

The most negative qualitative score (- 3) has been assigned to option 3 that is characterised by the highest administrative costs. Scores to option 1 and 2 have been assigned proportionally.

## 1.5. Summary of Impacts

The following table provide a summary of the relative scores assigned to each option with regards to all types of impact.

*Table 79: Qualitative score attributed to the effectiveness of each option with regards to all type of impacts (relative scores ranging from 0 to 3)*

| Category | Type of impact | Sub-Type of impact | Policy Option | |
|---|---|---|---|---|
| | | | 1 | 2 |
| Economic | Competition and opening of the rail market | Development of rail related services | 0.00 | 0.00 |
| | | Modal share of rail transport | 1.00 | 1.00 |
| | | New entrants in the rail freight market | 1.50 | 1.50 |
| | | Market share of new entrants in the rail freight market | 1.50 | 1.50 |
| | Cost of transport | Average operating costs for Railway Undertakings | 1.50 | 1.50 |
| | Administrative costs | Administrative costs for the EU and Member States and for the railway sector | - 1.75 | - 3.0 |
| Social | Employment | Employment within the rail industry | 1.00 | 1.00 |
| | Working conditions | Education and mobility of workers in the rail sector | 1.00 | 1.00 |
| Environmental | Environmental | Environmental Impacts | 1.00 | 1.00 |

*Source: PwC elaboration (2009).*

## 2. Comparing the options

### 2.1. Multicriteria analysis approach

According to the assumptions made and considering the figures of different impacts presented in the previous paragraphs, a Multi Criteria Analysis (MCA) has been developed in order to allow the comparisons of the three policy options proposed by the Commission against the base line scenario.

As far as the present Study is concerned, a MCA can be useful as there is a large amount of information on a number of different impacts.

The Multicriteria Analysis has been performed through of the following main steps:

- **identifying criteria to compare the options**: impacts assessed have been chosen as the set of measurable and comparable indicators.
- **scoring the effectiveness of each option in meeting the criteria**: scores vary between 0 and 3 (where 3 corresponds to the most positive impact/effect, or to the less negative); in order to normalise the values of the impacts/effects the following methodology was adopted:
    - **Defining and assigning weights to each criterion:** to reflect its relative importance between different impacts represented;

- **Assigning of the final score to each policy option**: the following formula will be considered in order to perform the final score of each policy option:

$$V_{PO_X} = \sum_{i=1}^{I} W_i * V_i \qquad \text{for } X = A, B, C, D, D+$$

Where: "I" is the total number of impacts, "Wi" is the final weight assigned to the impact "i" and "Vi" is the relative score assigned to impact "i".

The following tables show the synthesis of the weights selected for all the impacts identified.

Macro Weights assigned reflect the relevance of each category of impacts in the framework of market opening and fostering competition of the rail market. In this context economic impacts have been assigned the highest score, since they measure the level market opening and the intermodal competitiveness of rail market.

As far as sub-weights are concerned:

- Economic impacts: 20% is assigned to criteria that measure the effects of the Policy Options on the competitiveness of rail market and to the administrative costs, 10% is assigned when the effect of the impact connected with the criterion is subject to the influence of external factor (i.e. willingness of new operators to enter the market, reduction of fees by facility managers or by IMs).

- Social impacts: 50% is given to both criteria, since it is assumed that they have they same relevance in the framework of the opening of the rail market and the creation of an internal market for rail.

*Table 80: Calculation of weights to be associated to each type of impact*

| Category | Macro Weight | Type of impact | Sub-Type of impact | Weight | Final weight Wi |
|---|---|---|---|---|---|
| Economic | 60% | Competition and opening of the rail market | Development of rail related services | 20% | 12.0% |
| | | | Modal share of rail transport | 20% | 12.0% |
| | | | New entrants in the rail freight market | 10% | 6.0% |
| | | | Market share of new entrants in the rail freight market | 20% | 12.0% |
| | | Cost of transport | Average operating costs for Railway Undertakings | 10% | 6.0% |
| | | Administrative costs | Administrative costs for the EU and Member States and for the railway sector | 20% | 12.0% |
| Social | 15% | Employment | Employment within the rail industry | 50% | 7.5% |
| | | Working conditions | Education and mobility of workers in the rail sector | 50% | 7.5% |
| Environmental | 25% | Environmental | Environmental Impacts | 100% | 25.0% |

## 2.2. Multicriteria analysis outcomes

The table below shows the scoring of the single impacts for the three options and the relative weights, providing as well the results of the MCA in terms of score of each option, calculated as the weighted average of the scoring of the single impacts.

*Table 81: Qualitative score attributed to the effectiveness of each option with regards to all type of impacts (relative scores ranging from 0 to 3)*

| Category | Type of impact | Sub-Type of impact | Final weight | Policy Option | |
|---|---|---|---|---|---|
| | | | | 1 | 2 |
| Economic | Competition and opening of the rail market | Development of rail related services | 12.0% | 0.00 | 0.00 |
| | | Modal share of rail transport | 12.0% | 0.12 | 0.12 |
| | | New entrants in the rail freight market | 6.0% | 0.09 | 0.09 |
| | | Market share of new entrants in the rail freight market | 12.0% | 0.18 | 0.18 |
| | Cost of transport | Average operating costs for Railway Undertakings | 6.0% | 0.09 | 0.09 |
| | Administrative costs | Administrative costs for the EU and Member States and for the railway sector | 12.0% | -0.21 | -0.36 |
| Social | Employment | Employment within the rail industry | 7.5% | 0.08 | 0.08 |
| | Working conditions | Education and mobility of workers in the rail sector | 7.5% | 0.08 | 0.08 |
| Environmental | Environmental | Environmental Impacts | 25.0% | 0.25 | 0.25 |
| **Total** | | | **100%** | **0.67** | **0.52** |

*Source: PwC elaboration (2009).*

According to the result of the analysis the most promising policy option is option 1 since it can assure highest overall positive effects.

## ANNEX XIII: ADMINISTRATIVE COSTS

The implementation of the measures or the options identified for each measure would imply additional costs imposed on the concerned stakeholders for the organisation, planning, development and management of the specific programmes, action plans, procedures, and/or structures needed by the new legal framework.

Administrative costs have been identified according to the Commission specification [51] (see IA guide lines – chapter 10), as "*the cost incurred by different stakeholders in meeting legal obligation to provide information* (including cost of labelling, reporting, monitoring to provide the information and registration) *on their action or production, either to public authorities or to private parties*". Accordingly, the identification and assessment of administrative costs have been made through the EU Standard Cost Model. Firstly, each provision included in the alternative policy options of each measure has been analysed in order to identify if it could imply additional administrative burdens (organisation, planning, development and management of the specific programmes, action plans, procedures, and/or structures) compared to the baseline scenario for affected stakeholders. Secondly, each administrative burden has been analysed in order to assess expected administrative costs.

Costs are presented separately for businesses and public administration.

### 1. Step for the calculation of administrative costs

For the purpose of this study, in order to assess all the administrative costs, a specific evaluation approach was adopted consisting in the following main steps:

1. Identification of the actions required to implement each specific measure (identification of information obligations and the required actions);

2. Identification of relevant cost parameters: for the purpose of this study, it has been assumed that the main costs induced by the identified action plan are labour costs;

3. Identification of target groups (public, business), responsible to develop the actions and stakeholders affected by the implementation (the effects) of the actions;

4. Identification of two different types of administrative costs: one-off and recurrent administrative costs;

5. Identification of the frequency of recurring actions (starting from a case-by-case approach, considering an average value at EU level);

6. Identification of the timeframe;

[51] 15 January 2009

7. Assessment the full administrative cost of a normally efficient entity (identification of the Full Time Equivalent -man-day- related to each action related to each measure);

8. Assessment of the number of entities concerned

9. Quantification of full administrative Cost: According with the commission requirement and Impact Assessment Guide Lines, Administrative cost are mainly assessed on the basis of the average cost per action ("P") of total number of action performed per year, defined multiplying frequency ("F") and number of entities concerned ("NE")

$$AdmCost = P_{Actioni} * F_{Actioni} * NE_{Actioni}$$

The average cost per action is estimated by multiplying a tariff (based on the average labour cost per hour including prorated overheads) by the time required per action.

## 2. Assumption for administrative cost calculation

### 2.1. General assumption

- If an administrative action is required by law (directive, regulation, etc.) but corresponds to what an entity normally does in the absence of any legal obligation, it has not been regarded as administrative action and thus as administrative cost;

- For the assessment of net administrative costs only additional/new costs imposed by a legislative framework in relation to the base line scenario (action/measures) have been considered;

- One-off/recurrent administrative costs:

    - one-off administrative costs, defined as start up-cost or costs incurred when re-designing the way administrative obligation or specific action are met;

    - recurrent administrative costs, defined as annual costs (for instance) related to a specific reporting or auditing/controlling programme;

- Cost timeframe: the one-off administrative costs have been distributed within a three year start up period, from 2009 to 2012. For all the measures, flat distributions of administrative costs within this start-up period have been assumed; moreover, the starting periods for the recurrent administrative costs have been assumed from 2013 onward.

- For all the measures, specific levels of Full Time Equivalent (man-days) have been defined according to detailed assumptions and hypothesis developed measure-by-measure;

- The following categories of cost parameters have been considered:

    - cost parameters for actions developed by the targeted entity itself: number of hours spent to develop the specific action, multiplied by the hourly pay plus the overheads;

    - cost parameters for the "outsourced activities"(administrative actions eventually outsourced to external providers): the service provider charges per activity could be calculated considering an "overall service provider" charge per action or by multiplying the hourly fee charged (the service providers "external" tariff) by number of hours spent on the specific actions.

  In particular, for the different categories of cost parameters, the following assumptions have been made:

    - hourly labour costs is fixed at 20,8 €/h[52];

    - costs of overheads, are set by default at 25% of the hourly labour costs, according with the new IA Guidelines[53];

    - hourly fee charged by service providers is considered roughly at 75 €/h.

- Different levels of action outsourced to external providers have been considered depending on the specific type of actions.

- Number of entities: the following table illustrates the total number of entities per each stakeholder cluster identified in the 25 countries.

*Table 82: Full Time Equivalent man-day*

| | |
|---|---|
| Infrastructure Managers | 25 |
| Regulatory Bodies | 25 |

[52] Source: Eurostat website: hourly labour costs in euro for NACE Transport Storage and Communication.

[53] See Chapter 10.2 of Part III, "Annex to impact assessment Guidelines (15 January 2009)

| | |
|---|---|
| Railway Undertakings | 103 |
| Service providers | 443[54] |
| MS | 25 |

*Source: PwC elaboration (2008)*

- Because of the lack of consistent and reliable data and information related to the implementation of the measures at national level, all the measures have been considered as "not in place" for all MSs, in order to assess the worst scenario in terms of administrative burdens.

## 2.2. Specific assumption and action plan measure-by-measure

### *2.2.1. Measure 2: Introduction of independence requirements for the management of service facilities from rail transport provision (i.e. legal, organizational and decision making independence)*

As considered before, the aim of measure 2 is the introduction of independence requirements for the management of service facilities from rail transport provision.

The implementation of policy option 1 involves additional administrative costs to be borne both by the public sector (at EU level) and by the business sector compared to the baseline scenario.

As far as the public sector is concerned, the implementation of the option will involve a preliminary project at EU level with the aimed at identifying specific market segment and related involved entities and at developing guidelines and recommendations to perform monitoring programmes on the market. Such costs may be referred to as "one off" costs for the public sector related to information requirements, and are expected to be sustained within the first /second year of the initiative.

As far as the business sector is concerned (manager of the service facility, RU), the implementation of the option will involve activities aimed at setting up the new legally independent structures (evaluation of the company, definition of the organisational structure, re-design of internal procedures, control of the start-up process, training of the employees, etc..) in all cases in which management of the service facility and management of the transport operation occur under the same company in separate business divisions. Administrative costs related to such activities may be referred to as "one-off "business sector costs related to information requirements and are expected to occur in a two-three years time at the beginning of the process.

[54] SERVRAIL STUDY – Final Report (December 2006), Assessment of present and likely future conditions of providing rail-related services - It important to underlie that the services are undertaken by more than one category of service.

Turning a division/area of a large firm/entity into a separate legal entity will involve additional "recurrent" administrative costs compared to the baseline, due to the need of additional flow of information (i.e. financial reporting to the holding, notifications and information to ensure transparency, submission of new internal reports on activities, registrations and notifications of service facility availabilities, etc). Such costs may be referred to as "recurrent" administrative costs for the business sector related to information requirements.

The creation of a new entity could also require additional resources/structures in order to manage service units, such as the legal department, the human resources department, etc... However, it can be assumed that personnel could be shifted from one company to another, thus it is not expected to involve additional administrative costs compared to the baseline scenario.

The implementation of option 2 will involve the same level and nature of administrative "one-off" costs for the public sector. "One-off" costs for the business sector will be of the same nature of those of policy option 1. However, since the number of entities involved in the process will be higher (it will include also those transport operators that are currently legally separated from the manager of the facility, but are part of the same financial group) one off administrative costs incurred by the business sector is expected to be higher than in option 1.

The implementation of option 3 will involve the same level and nature of administrative "one-off" costs for the public sector incurred in option 1 and in option 2.

"One-off" administrative costs incurred by the business sector will be of the same nature of those in option 2, but since the scope of the option is larger (it applies to all entities notwithstanding their market share) the level of administrative costs is expected to be higher.

No recurrent administrative costs are expected for the same reason of policy option 2.

The level of costs for administrative obligations depend on several factors, in particular it depends on the number, size and structures of the entities involved, and on typology and number of the service facilities.

The variegated picture of the management of service facilities (in terms of service markets, legal structures and size of service operators and wide range of service markets and facilities) make not possible to provide a fully reliable quantification of the administrative costs for the business sector for this specific measure.

The following table presents the main figures of "one-off" and "recurrent" administrative costs against the baseline scenario due to the implementation of the measures 2.

*Table 83: Administrative Cost vs Base line scenario: "one-off", "recurrent" (M€)*

| | One Off Costs (M€) | Recurrent (M€/year)) |
|---|---|---|

| Option 1 | Total | Business sector | Public sector | Total | Business sector | Public sector |
|---|---|---|---|---|---|---|
| Option 1 | 1.80 | 1.6 | 0.2 | 1.14 | 1.14 | - |
| Option 2 | 4.40 | 4.2 | 0.2 | - | | |
| Option 3 | 6.50 | 6.3 | 0.2 | - | | |

*Source: PwC elaboration (2009).*

### *2.2.2. Measure 3: Introduction of 'Use-it-or-lose-it' provisions for the management of rail related service facilities*

The introduction of specific provisions to rule the cases in which service facilities are not used could involve additional "one-off" and "recurrent" administrative costs both in the public sector (EU and MSs) and in the business sector (facility owners or managers) compared to the baseline scenario.

In particular, at EU level "one off " costs will be related to the development of a preliminary analysis on different types of services facilities aimed at setting critical parameters to be used in order to identify condition under which "use it or lose it" rule should be applied, and to the development of specific guide lines related to financial penalty schemes to be used (option 1), procedures for publishing the operation of the facility for lease or rent (option 2) and for sale (option 3). Such "one off" costs could be sustained within the first year of the measure implementation programme.

Moreover, starting from the EU legal and operational guidelines, each MS will have to perform a number of activities:

- carrying out technical analysis with the aim of developing a "Service Facilities" register including main criteria and parameters to be used for applying the "use-it-or-lose-it" provision: in particular, key drivers will have to be identified for any market segment to assess critical conditions under which penalties should be applied (option 1), management of service should be leased or rent (option 2) asset should be sold (option 3).

- defining and setting financial penalties according to EU guidelines, identifying administrative obligations, operational procedures and the responsibilities to notify penalties (option 1).

- designing procedures for leasing /renting the management of service facilities (option 2) or for selling the assets (option 3).

Such "one off" costs could be sustained within the first/second year of the measure implementation programme.

The public sector (MS or RB) will also bear additional "recurrent" administrative costs compared with the baseline scenario due to the legal obligations to provide information to the affected parties on financial penalties applied (option 1).

EU and MS "recurrent" costs can be classified as "recurrent" administrative costs for the public sector related to information requirements.

As far as the business sector (facility owners or managers) is concerned, the following tasks have to be performed:

- when the owner of the assets is not the manager, the owner shall establish controlling and monitoring programmes to assess whether the facility is in use (option 2 and 3);
- where the service facility has not been in use for a specific period, the owner shall publish it for lease or rent (option 2) or for sale (option 3): these administrative costs depend on number of cases in which service facilities are not used.

Such administrative costs can be classified as "recurrent" administrative costs for the business sector related to information obligation.

From the arguments presented before, it can be inferred that due to the higher number of obligations to be considered and activities to be planned, option 2 and 3 could create heavier administrative burdens that option 1. Moreover, administrative costs related to option 3 could be considered higher that option 2, because of the higher complexity of the legal and operational procedures for sale the asset compared to the ones related to rent or lease mechanisms.

These administrative costs could range depending on several factors, in particular: types and number of the service facilities, number of cases in which service facilities are not used, service facility capacity and demand, total number of owners and users etc.

As follows, an example of possible impacts in terms of administrative costs is presented, considering specific assumptions and simplifications.

*Table 84: Administrative Cost vs Base line scenario: "one-off", "recurrent" (M€)*

| | One Off Costs (M€) | | | Recurrent (M€/year)) | | |
|---|---|---|---|---|---|---|
| **Option 1** | **Total** | **Business sector** | **Public sector** | **Total** | **Business sector** | **Public sector** |
| Option 1 | 1.70 | - | 1.70 | 1.14 | - | 1.14 |
| Option 2 | 4.00 | - | 4.00 | 3.23 | 3.23 | 0 |
| Option 3 | 4.40 | - | 4.40 | 3.88 | 3.88 | 0 |

*Source: PwC elaboration (2009)*

*2.2.3. Measure 16-27: Empower the Rail regulatory body to carry out audits or to initiate external audits with the railway undertakings and infrastructure managers to verify the compliance with accounting separation provisions and to require cost accounting data in an aggregated and standardised form as 'regulatory accounts" in a common format, which include infrastructure managers' main cost elements and performance parameters*

The introduction of the measure could involve additional "one-off" and "recurrent" administrative costs both in the public sector (EU and MSs) and in the business sector compared to the baseline scenario.

Specifically, RB shall preliminary set and deliver to IMs and Rus (option 1) or to external auditor (option 2 and 3) audit criteria, requirements and approach (frequency, criteria, output, formats, responsibilities, auditor requirements, etc.). To this end, the following tasks will be performed by RB:

- identification of clear target, contents and aim of the audits: different options will involve different audit contents (option 1, 2 and 3);
- identification of "regulatory account" with recommended minimum data to be provided relating to cost elements and performance parameters (option 2) or identification of "regulatory account comprehensive unified set of data" and additional performance parameter (option 3) ;
- define frequency, responsibility and timing (option 2 and 3) for carrying out audit or for initiating external audit with RU/IM and set requirements for the final results with the identification of report formats.

In option 2 and 3, RB shall design information flow between the auditor (external auditor or RB) and IM/RU.

All costs described above may be referred to as additional (compared to the baseline scenario) "one-off" administrative costs for the public sector due to information obligations. It is expected that they will be sustained within the first year of the initiative.

In order to make the measure become operational, under option 1 IM shall design tailor-made procedures to provide information to the auditor, with consequent additional administrative costs compared to the baseline scenario. Such costs may be referred to as additional (compared to the baseline scenario) "one-off" administrative costs for the business sector due to information obligations. It is expected that they will be sustained within the first year of the initiative.

Moreover, additional (against the baseline scenario) "recurrent" administrative costs are expected for the development of audit activities and reports.

As far as option 1 is concerned, such costs will be borne by the IM/RU, thus they can be referred to as additional "recurrent" administrative costs for the business sector related to information obligations.

As far as option 2 and 3 are concerned, audits could be carried out by the RB (option 2 and 3) or could be outsourced to external providers by the RB (option 2). In all cases related costs may be referred to as additional "recurrent" administrative costs for the public sector related to information obligations.

It is important to underline such costs are expected to be higher in option 2 and 3 than in option 1 due to the higher cost elements and performance parameters to be checked, analysed, and summarised.

Finally, under all options RBs will require reinforcing their operational structures (compared to the baseline scenario) in order to manage the increased information flow and to supervise the audit programmes. Administrative costs related to such activities may be referred to as "recurrent" costs for public sector.

The following table presents the main figures of "one-off" and "recurrent" administrative costs against the baseline scenario due to the implementation of the measure.

*Table 85: Administrative Cost vs Base line scenario: "one-off", "recurrent" (M€)*

| | One Off Costs (M€) | | | Recurrent (M€/year) | | |
|---|---|---|---|---|---|---|
| **Option 1** | **Total** | **Business sector** | **Public sector** | **Total** | **Business sector** | **Public sector** |
| Option 1 | 1.83 | 0.33 | 1.50 | 0.59 | 0.13 | 0.46 |
| Option 2 | 2.62 | 0.33 | 2.29 | 0.70 | 0.05 | 0.65 |
| Option 3 | 3.01 | 0.33 | 2.68 | 0.87 | 0.08 | 0.79 |

*Source: PwC elaboration (2009)*

### *2.2.4. Measure 25: Extend the scope of competences of regulatory bodies shall explicitly cover Decisions related to Annex II of Directive 2001/14 in order to be put in a position to effectively ensure non-discriminatory access to rail related services*

The implementation of the measure involves additional administrative costs for the public sector (MS or RB) compared to the baseline scenario.

In particular, the implementation of option 1 will involve a preliminary analysis at EU level in order to clearly identify the boundaries between the competences of the Regulatory Body and those of the Competition Authority and to define the guidelines for the implementation of the measure at MS level that clarify scope the aim of emergency procedures (for the "fast track" interventions). Such costs may be referred to as "one off" costs for the public sector related to information requirements.

Basing on the results of the preliminary analysis, the implementation of option 1 will require MS to reinforce existing operational structures of Competition Authorities in order to carry out the new task. Administrative costs related to such activities may be referred to as "recurrent" costs for public sector related to information requirements.

Again, the implementation of option 2 and 3 will involve a preliminary analysis at EU level in order to clearly identify the boundaries between the competences of the Regulatory Body and those of the Competition Authority, to clearly define the "new" scope and competences of the RB and to define the guidelines for the implementation of the measure at MS level. In case of option 3, the guidelines should also clarify the scope and the aim of emergency procedures (for the "ex-ante" interventions). Such costs may be referred to as additional (compared to the baseline) "one off" costs for the public sector related to information requirements.

Basing on the results of the preliminary analysis, the implementation of option 2 and 3 will require MS to reinforce existing operational structures of Regulatory Bodies in order to carry out the new task. Administrative costs related to such activities may be referred to as "recurrent" costs for public sector related to information requirements.

Since the extension of the scope of the competences of the RBs will be larger than that of the Competition Authorities "recurrent" additional administrative costs incurred are expected to be higher than in option 1 (for the same reason, administrative costs incurred under option 3 are expected to be higher than in option 2).

The following table presents the main figures of "one-off" and "recurrent" administrative costs against the baseline scenario due to the implementation of the measures 25.

*Table 86: Administrative Cost vs Base line scenario: "one-off", "recurrent" (M€)*

| | One Off Costs (M€) | | | Recurrent (M€/year) | | |
|---|---|---|---|---|---|---|
| **Option 1** | **Total** | **Business sector** | **Public sector** | **Total** | **Business sector** | **Public sector** |
| Option 1 | 0.09 | - | 0.09 | 1.08 | - | 1.08 |
| Option 2 | 0.09 | - | 0.09 | 2.37 | - | 2.37 |
| Option 3 | 0.09 | - | 0.09 | 3.08 | - | 3.08 |

*Source: PwC elaboration (2009)*

### 2.2.5. *Measure 26: Regulatory bodies shall be at least functionally independent including decision making independence, including decision making independence from the public authority that exercises the ownership rights over the incumbent railway undertaking.*

The implementation of the measure involves additional administrative costs for the public sector (EU and RB) compared to the baseline scenario.

In particular, the implementation of both options 1 and 2 will involve a preliminary analysis (at EU level) in order to identify the legal and organisational solutions to make regulatory bodies (at least) functionally independent from the public authority that exercise the ownership rights over the incumbent railway undertaking. Following the establishment of independence requirements and on the base of the situation at country level, the implementation of option 1 will involve effort by MS to define procedures (i.e. information flows, information obligation, etc.), with the aim of ensuring

transparency of the functioning of RB and compliance with the independence requirements. Operational action plans shall be developed by MS for a fast implementation of the measure (meeting with all the competent authority involved and affected by operational and legislative measures may be required).

Costs related to the activities described, can be referred to as "one-off" additional administrative costs for the public sector related to information requirements are expected to be sustained within the first year of the programme.

Moreover, for the implementation of option 2, MS shall establish a single (stand alone) national Regulatory Body. As far as option 1 is concerned, in order to make Regulatory Bodies independent, MS may turn a division/area of a RB into a separate entity. In both cases, it will involve additional "recurrent" administrative costs compared to the baseline scenario, due to the need of additional flow of information (i.e. reporting and notifications between competent authority, information to ensure transparency, etc.).

Such costs may be referred to as "recurrent" administrative costs for the business sector related to information requirements and are expected to be higher in option 2 that in option 1, due to the major number of cases that would require to be aligned with the new requirements.

The following table presents the main figures of "one-off" and "recurrent" administrative costs against the baseline scenario due to the implementation of the measures 26.

*Table 87: Administrative Cost vs Base line scenario: "one-off", "recurrent" (M€)*

| | One Off Costs (M€) | | | Recurrent (M€/year) | | |
|---|---|---|---|---|---|---|
| **Option 1** | **Total** | **Business sector** | **Public sector** | **Total** | **Business sector** | **Public sector** |
| Option 1 | 0,31 | - | 0,31 | 2,69 | - | 2,69 |
| Option 2 | 0,20 | - | 0,20 | 4,74 | - | 4,74 |

*Source: PwC elaboration (2009)*

## 2.3. Administrative costs by measure

The following table shows main cost drivers and final economic figures for administrative one-off and recurrent costs, related to all the actions identified measure-by-measure, in particular:

- average tariffs per action considering the average tariff per hour, the time per action needed (hours) , the percentage of actions outsourced;
- one-off/ recurring costs;
- Target Group;
- total number of actions required considering the frequency and the entities involved;
- total costs per action (Euro).

***Table 88:*** *"One-off" and "Recurrent" administrative costs per measure (Euro) – preliminary results*

| Measures | Main required action | One Off(OO)/ RecurrentI | Target Group | Ave. Tariff | Av FTE | Time per action (h) | | | Price per action (€) | | | Freq (year) | n° of actors | Actions/ year | Total cost per Action- One Off (Start up period) and Recurrent (Annual) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | OP 1 | OP 2 | OP 3 | OP 1 | OP 2 | OP 3 | | | | OP 1 | OP 2 | OP 3 |
| M2 | Project at EU level aimed at identifying specific market segment and related involved entities and at developing guidelines and recommendations to perform monitoring programmes on the market. | OO | EU | 64,2 | 300 | 2516 | 2516 | 2516 | 161414 | 161414 | 161414 | 1 | 1 | 1 | 161414 | 161414 | 161414 |
| M2 | Design information material on the outcomes of the study, identification of operative guidelines, and recommendation, hold a presentation meeting and submit the information to MSs. | OO | EU | 31,6 | 64 | 614 | 1843 | 1843 | 19430 | 58289 | 58289 | 1,0 | 1 | 1 | 19.430 | 58.289 | 58.289 |
| M2 | Setting up the new legally independent structures (evaluation of the company, definition of the organisational structure, re-design of internal procedures, control of the start-up process, training of the employees, etc..) | OO | Operator | 31,6 | 100 | 960 | 1920 | 2880 | 30359 | 60718 | 91077 | 1,0 | 25 | 25 | 758.976 | 1.517.952 | 2.276.928 |
| M2 | Start up activities and alignment: information flow, materials and training programme on the new organisation/structure, new procedures etc; | OO | Operator | 31,6 | 120 | 1152 | 3456 | 5184 | 36431 | 109293 | 163939 | 1,0 | 25 | 25 | 910.771 | 2.732.314 | 4.098.470 |
| M2 | Turning a division/area of a large firm/entity into a separate legal entity: additional flow of information (i.e. financial reporting to the holding, notifications and information to ensure transparency, submission of new internal reports on activities, registrations and notifications of service facility availabilities, etc). | R | Operator | 20,8 | 220 | 2200 | 0 | 0 | 45716 | 0 | 0 | 1,0 | 25 | 25 | 1.142.900 | - | - |

| Measures | Main required action | One Off(OO)/ RecurrentI | Target Group | Ave. Tariff | Av FTE | Time per action (h) | | | Price per action (€) | | | Freq (year) | n° of actors | Actions/ year | Total cost per Action- One Off (Start up period) and Recurrent (Annual) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | OP 1 | OP 2 | OP 3 | OP 1 | OP 2 | OP 3 | | | | OP 1 | OP 2 | OP 3 |
| M3 | Preliminary analysis on different types of services facilities in order to identify condition under which penalties should be applied, and to the development of specific guide lines related to financial penalty schemes to be used (option 1), procedures for publishing the operation of the facility for lease or rent (option 2) and for sale (option 3). | OO | EU | 64,2 | 150 | 1260 | 0 | 0 | 80837 | 0 | 0 | 1,0 | 1 | 1 | 80.837 | - | - |
| M3 | Technical analysis with the aim of developing a "Service Facilities" register including main criteria and parameters to be used for applying the "use-it-or-lose-it" provision. | OO | MS | 47,9 | 150 | 1350 | 1800 | 1980 | 64652 | 86202 | 94822 | 1,0 | 25 | 25 | 1.616.288 | 2.155.050 | 2.370.555 |
| M3 | Identification/design of the "re-allocation" processes and deliver of the "use-it-or-loose-is" rules | OO | MS | 47,9 | 170 | 0 | 1530 | 1683 | 0 | 73272 | 80599 | 1,0 | 25 | 25 | - | 1.831.793 | 2.014.972 |
| M3 | - Establish controlling and monitoring programmes in assess whether the facility is in use (option 2 and 3);<br>- Publish it for lease or rent (option 2) or for sale (option 3);<br>- Manage the administrative obligation required by leasing/renting contracts (option 2). | R | Owner (IM) | 47,9 | 280 | 0 | 2700 | 3240 | 0 | 129303 | 155164 | 1,0 | 25 | 25 | - | 3.232.575 | 3.879.090 |
| M3 | Legal obligations to monitor and provide information on financial penalties | R | MS | 20,8 | 220 | 2200 | 0 | 0 | 45716 | 0 | 0 | 1,0 | 25 | 25 | 1.142.900 | - | - |
| M16/ 27 | Preliminary analysis in order to set and deliver audit criteria, requirements and approach (frequency, criteria, output, formats, responsibilities, auditor requirements, etc.) | OO | RB | 31,6 | 50 | 480 | 480 | 480 | 15180 | 15180 | 15180 | 1,0 | 25 | 25 | 379.488 | 379.488 | 379.488 |
| M16/ 27 | Identification of clear target, contents and aim of the audits: different options will involve different | OO | RB | 31,6 | 80 | 768 | 768 | 768 | 24287 | 24287 | 24287 | 1,0 | 25 | 25 | 607.181 | 607.181 | 607.181 |

| Measures | Main required action | One Off(OO)/ RecurrentI | Target Group | Ave. Tariff | Av FTE | Time per action (h) | | | Price per action (€) | | | Freq (year) | n° of actors | Actions/ year | Total cost per Action- One Off (Start up period) and Recurrent (Annual) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | OP 1 | OP 2 | OP 3 | OP 1 | OP 2 | OP 3 | | | | OP 1 | OP 2 | OP 3 |
| | audit contents; | | | | | | | | | | | | | | | | |
| M16/ 27 | Identification and delivering of "regulatory account" with recommended minimum data to be provided relating to cost elements and performance parameters | OO | RB | 31,6 | 50 | 0 | 480 | 480 | 0 | 15180 | 15180 | 1,0 | 25 | 25 | - | 379.488 | - |
| M16/ 27 | identification of "regulatory account comprehensive unified set of data" and additional performance parameter | OO | RB | 31,6 | 80 | 0 | 768 | 922 | 0 | 24287 | 29145 | 1,0 | 25 | 25 | - | - | 728.617 |
| M16/ 27 | Output formats and templates identification (check list) is requested (it might be more effectives if those organisations reports their findings to regulators on a regular basis) | OO | RB | 20,8 | 35 | 350 | 350 | 420 | 7273 | 7273 | 8728 | 1,0 | 25 | 25 | 181.825 | 181.825 | 218.190 |
| M16/ 27 | General audit action plan for for audit programme | OO | RB | 20,8 | 80 | 0 | 800 | 800 | 0 | 16624 | 16624 | 1,0 | 25 | 25 | - | 415.600 | 415.600 |
| M16/ 27 | Communication to external auditors in order to plan the operative programme and to set the operative procedures, | OO | RU-IM | 20,8 | 10 | 100 | 100 | 100 | 2078 | 2078 | 2078 | 1,0 | 25 | 25 | 51.950 | 51.950 | 51.950 |
| M16/ 27 | Definition and setting of the "audit" register and design of the communication | OO | RU-IM | 31,6 | 80 | 768 | 768 | 768 | 24287 | 24287 | 24287 | 1,0 | 25 | 25 | 607.181 | 607.181 | 607.181 |
| M16/ 27 | Setting up the new structures in order to perform audits and to deliver information to RBs or to initiate external audit with RUs and IMs | R | Audit–r - RB | 47,9 | 25 | 45 | 90 | 135 | 2155 | 4310 | 6465 | 0,5 | 50 | 25 | 53.876 | 107.753 | 161.629 |
| M16/ 27 | Synthesis of the outcomes and document delivery (from Auditor to IM/RU) | R | Auditor | 47,9 | 15 | 135 | 0 | 0 | 6465 | 0 | 0 | 0,5 | 50 | 25 | 161.629 | - | - |
| M16/ 27 | Documents and other outcomes delivery (from IM-RU to RB) | R | IM-RU | 20,8 | 10 | 100 | 0 | 0 | 2078 | 0 | 0 | 0,5 | 50 | 25 | 51.950 | - | - |
| M16/ | Document gathering and analysis of critical | R | RB | 20,8 | 62 | 620 | 744 | 893 | 12884 | 15460 | 18552 | 1,0 | 25 | 25 | | | |

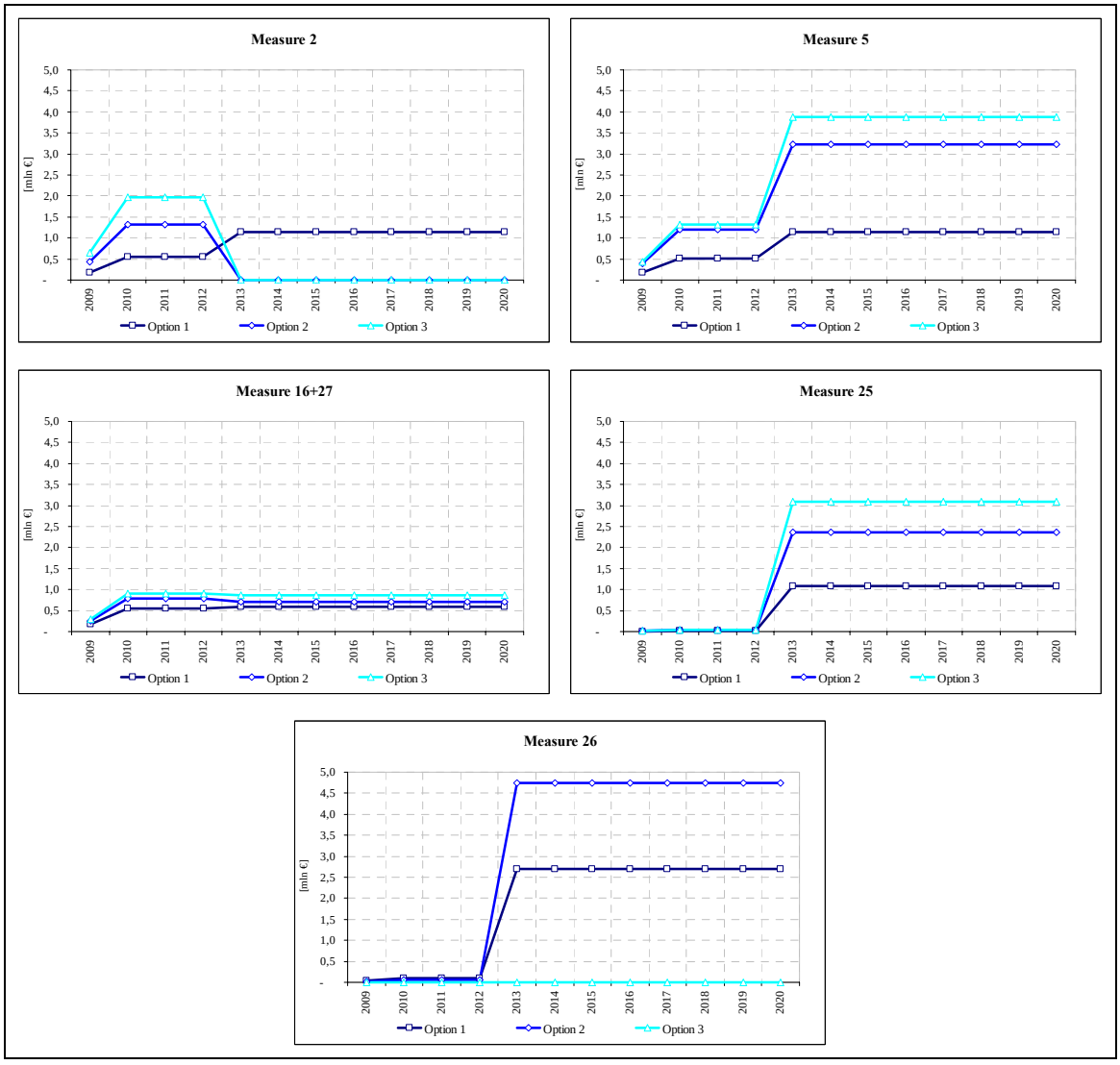
| Measures | Main required action | One Off(OO)/ RecurrentI | Target Group | Ave. Tariff | Av FTE | Time per action (h) | | | Price per action (€) | | | Freq (year) | n° of actors | Actions/ year | Total cost per Action- One Off (Start up period) and Recurrent (Annual) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | OP 1 | OP 2 | OP 3 | OP 1 | OP 2 | OP 3 | | | | OP 1 | OP 2 | OP 3 |
| 27 | aspects | | | | | | | | | | | | | | 322.090 | 386.508 | 463.810 |
| M16/ 27 | Upgrading of the RB structure (focusing on audit programme) in order to manage the additional information flow | R | RB | 20,8 | 40 | 0 | 400 | 480 | 0 | 8312 | 9974 | 1,0 | 25 | 25 | - | 207.800 | 249.360 |
| M25 | Work programme at EU level in order to identify the scope of competences of Regulatory Bodies, define the organisational guidelines related to recommendation to be delivered by the MSs and clarify scope the aim of emergency procedures | OO | EU | 47,9 | 210 | 1890 | 2079 | 2287 | 90512 | 99563 | 109520 | 1,0 | 1 | 1 | 90.512 | 99.563 | 109.520 |
| M25 | Upgrading the existing structures in order to provide information obligation due to the extension of the competencies of regulatory bodies | R | MS | 47,9 | 100 | 900 | 0 | 0 | 43101 | 0 | 0 | 1,0 | 25 | 25 | 1.077.525 | - | - |
| M25 | Upgrading the existing structures in order to provide information obligations due to the extension of the competencies of regulatory bodies, also including "emergency procedures" aspects (format, periodical documents , other outcomes) | R | RB | 47,9 | 220 | 0 | 1980 | 2574 | 0 | 94822 | 123269 | 1,0 | 25 | 25 | - | 2.370.555 | 3.081.722 |
| M26 | Preliminary analysis (project at EU level) in order to identify the legal and organisational solutions to make regulatory bodies (at least) functionally independent from the public authority that exercise the ownership rights over the incumbent railway undertaking. | OO | EU | 47,9 | 125 | 75,0 | 0,5 | 47,9 | 0,0 | 53876 | 0 | 1 | 1 | 1 | 53876 | 53876,3 | 0 |
| M26 | Identify, set, design and delivery operational and legal guidelines with specific recommendation on independence requirement and best practices | OO | EU | 47,9 | 100 | 75,0 | 0,5 | 47,9 | 0,0 | 43101 | 0 | 1 | 1 | 1 | 43101 | 43101,0 | 0 |

| Measures | Main required action | One Off(OO)/ RecurrentI | Target Group | Ave. Tariff | Av FTE | Time per action (h) | | | Price per action (€) | | | Freq (year) | n° of actors | Actions/ year | Total cost per Action- One Off (Start up period) and Recurrent (Annual) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | OP 1 | OP 2 | OP 3 | OP 1 | OP 2 | OP 3 | | | | OP 1 | OP 2 | OP 3 |
| M26 | Defining of internal and external procedure, setting of the information flow between the RB and the other authority (IM, charging bodies, allocation bodies, applicants) with the aim to assure transparency independency and compliancy with the independence requirements. | OO | MS | 47,9 | 10 | 75,0 | 0,5 | 47,9 | 0,0 | 0 | 0 | 1 | 25 | 25 | 107753 | 0,0 | 0 |
| M26 | MSs have to define action plan for legal, operational and organisational aspects (identifying responsibility and deadlines) in order to assure fast implementation of the programme and to information sharing. | OO | MS | 47,9 | 10 | 75,0 | 0,5 | 47,9 | 0,0 | 4310 | 0 | 1 | 25 | 25 | 107753 | 107752,5 | 0 |
| M26 | Upgrading of the RB structure with the aim to manage the (new) administrative obligation (gathering/providing information from and to different competent authorities, producing new data and finalise/deliver reports, holdings meeting etc..) | R | RB | 47,9 | 250 | 75,0 | 0,5 | 47,9 | 0,0 | 0 | 0 | 1 | 25 | 25 | 2693813 | 0,0 | 0 |
| M26 | Establish the single national body for the railway sector (a stand alone completely independent from the other competent authorities) | R | MS | 47,9 | 440 | 75,0 | 0,5 | 47,9 | 0,0 | 189644 | 0 | 1 | 25 | 25 | 0 | 4741110 | 0 |

## 2.4. Synthesis of the main figures of administrative costs

The following figures represent the yearly distribution of the additional administrative costs against the baseline scenario for the different options of each measure.

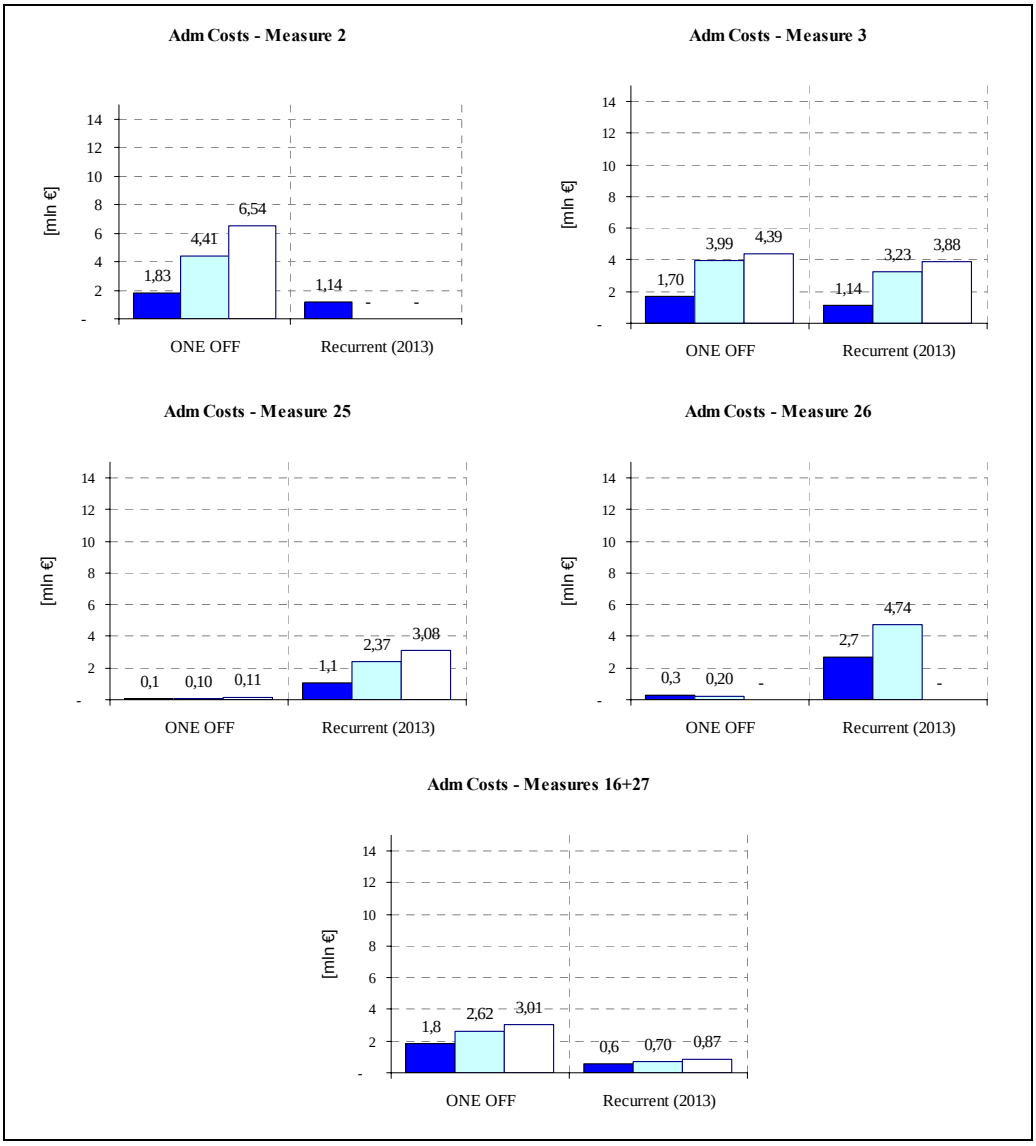
*Figure7: Administrative Cost vs Base line scenario (cost trend)*




*Source: PwC (2008)*

In order to further understand the differences between administrative costs of the options, the following figures summarise the total "one-off" and "recurrent" administrative costs due to the implementation of the measures within the three options with respect to the no policy one (base line scenario).

*Figure8: Administrative Cost vs Base line scenario: "one-off" and "recurrent"*



**Total Administrative costs for the whole package of measures**

| Administrative Costs | Public Institutions | | Business | |
|---|---|---|---|---|
| **= modernisation** | **ONE OFF (total)** | **Recurrent (2013)** | **ONE OFF (total)** | **Recurrent (2013)** |
| | Million € | Million € | Million € | Million € |
| M1 | 0,16 | - | - | - |
| **M2** | **-** | **-** | **-** | **-** |
| **M3** | **0,25** | **3,44** | **0,07** | **-** |
| M4 | 0,17 | - | - | - |
| M5 | - | - | - | - |
| **M6** | **-** | **-** | **1,43** | **0,32** |
| M7 | - | - | 6,13 | 2,26 |
| **M8** | **-** | **-** | **0,82** | **0,69** |
| M9 | - | - | 0,80 | 0,03 |
| M10 | - | - | 0,25 | 0,03 |
| M11 | - | - | - | 0,50 |
| M12 | 2,46 | - | - | - |
| M13 | 0,13 | 2,43 | - | - |
| M14 | - | - | 1,36 | 0,90 |
| M15 | - | - | 3,01 | 4,22 |
| **M16** | **2,40** | **0,58** | **0,18** | **0,15** |
| **M17** | **0,10** | **0,67** | **-** | **-** |
| **M18** | **0,04** | **-** | **-** | **-** |
| **M19** | **4,25** | **1,19** | **4,25** | **1,19** |
| **M20** | **0,07** | **1,47** | **-** | **-** |

| | | | | |
|---|---|---|---|---|
| M21 | - | - | 0,03 | 0,35 |
| M22 | 0,24 | 0,18 | - | - |
| M23 | 0,31 | - | 0,64 | - |
| M24 | 0,60 | 1,26 | - | 1,26 |
| **M25** | **0,10** | **2,52** | **-** | **-** |
| **M26** | **0,11** | **2,52** | **-** | **-** |
| **TOTAL** | **11,37** | **16,26** | **18,97** | **11,89** |

## 3. Basic assumptions

Basic assumptions underlying the impact assessment relate to its overall general scope as well as to economic, social and environmental dimensions.

### 3.1. General Assumptions

The timeframe of the impact assessment is assumed to be 2007-2020 and the geographical scope, the EU-25.

### 3.2. Reference indicators

The baseline scenario serves as a reference against which the impact of the package of modifications proposed by the Commission will be assessed. It describes the forecast evolution to 2020 of the European railway market assuming the implementation of no new measure. It reveals little or no progress in terms of achieving the specific objectives.

The reference indicators are projected to 2020 to describe the no-change-in-policy situation against which the impact of the package of modifications is assessed.

### 3.3. Full implementation of existing legislation

This impact assessment assumes that the infringement procedures launched in June 2008 will push the 24 Member States against which procedures were launched to be fully compliant with the first railway package by 1 January 2011. The effects of full implementation of the first railway package are expected to be reflected in the behaviour of the market but to influence the trend of only some of the indicators.

## 4. Methodology

The methodology used for the assessment of impacts is illustrated in a chronological sequence.

### 4.1. Screening of available information and quantitative data

The relevant literature and previous work for the EC was analysed with the aim of identifying information useful for the impact assessment. The availability of quantitative data for **indicators** relevant to the assessment was ascertained.

### 4.2. Definition and description of the baseline scenario

The baseline scenario for the assessment is represented through the **indicator** variations which are expected to occur in the case of no further EU action. The predictions are mainly taken from literature and EU studies which have gathered a wide consensus (e.g. Eurostat data, “Energy and Transport Trends to 2030”).

4.3. Identification of correlations among quantitative data

The **indicators** for which detailed quantitative data is available were analysed in order to highlight statistical correlations. From this process the indicator that emerged as the best available to represent the degree of opening in EU countries is the "LIB index", defined in the report “Rail Liberalisation Index 2007” by IBM.

The LIB Index is based, country by country, on the degree of presence of **barriers** to market opening and development and precisely the following barriers, to each of which a corresponding “sub-index” is associated by IBM: organisational structures of the incumbent RU, regulation of market access, Regulatory Authority powers, information barriers, administrative barriers, operational barriers, share of domestic market available.

The best statistical correlations were found between six of these seven sub-indexes (all but “share of domestic market available”) and four other **indicators** strongly connected with the aims and objectives of this initiative. These are, in order of "quality" of the identified correlation: modal share of rail freight, number of non-incumbent RUs, market share of non-incumbent RUs, average operating costs for RUs. The quality of the correlations is represented by the "regression index", whose value ranges between zero (no correlation) and one (complete correlation, no effect of other "external" indicators) – see the last column of Table 89.

*Table 89: Coefficients of the regression model*

| Dependent Variables | Independent variables | | | | | | | | | | Regression Index |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Constant | Organisation structures of the incumbent | Regulation of market access | Regulatory Authority powers | Information barriers | Administrative barriers | Operational barriers | Share of domestic market available | Dummy variable isolated Countries | Dummy variable Baltic Countries | |
| | b | L.I | L.II | L.III | A.I | A.II | A.III | A.IV | d2 | d1 | $R^2$ |
| **Linear Models - Coefficients of the independent variables** | | | | | | | | | | | |
| Modal share rail freight | 2.59 | | | 1.83 | 7.31 | 5.88 | 1.81 | | -15.03 | -27.54 | 0.85 |
| Number of non incumbent RUs | | 0.296 | | | | 0.0396 | 0.112 | | | | 0.50 |
| Market share of non incumbents | | 1.07 | | | | 8.27 | 0.482 | | | | 0.47 |
| **Exponential Model - Coefficients of the independent variables** | | | | | | | | | | | |
| Operating cost/train km | 101.1 | | | | | | -0.463 | | | | 0.37 |

*Source: PwC elaboration (2008)*

The good correlation found between the LIB index and modal share of rail freight was obtained only after considering separately from the rest two groups of countries: "isolated" countries (Greece, Ireland, Luxembourg, Portugal, Spain, United Kingdom) and the three Baltic States (Estonia, Latvia, Lithuania). This indicates that in all three groups of countries the market opening process is one of the main contributors to modal share growth (high regression index = low contribution of external effects) but that the relationship differs according to some differences, which can be inferred by understanding the geographical and

network characteristics of the two separate groups: low degree of cross-border operations for the isolated countries, close ties to extra-EU countries for the Baltic States.

The fact that the best correlations were found with the LIB index measured in one single year, and not with its differences over some years, is most probably due to two main causes: i) the method with which the LIB index is calculated varies over time - this is inevitable due to changes in the relative importance given to the factors affecting market opening; ii) time is implicitly represented in the LIB index for one single year, which is higher for countries which have started the market opening process earlier – in other words the index is correlated to "time from start of market opening".

4.4. Cause-effect analysis: identification of impacts

A detailed cause-effect analysis was carried out in order to identify impacts. Figure 9 illustrates this analysis in a simplified form.

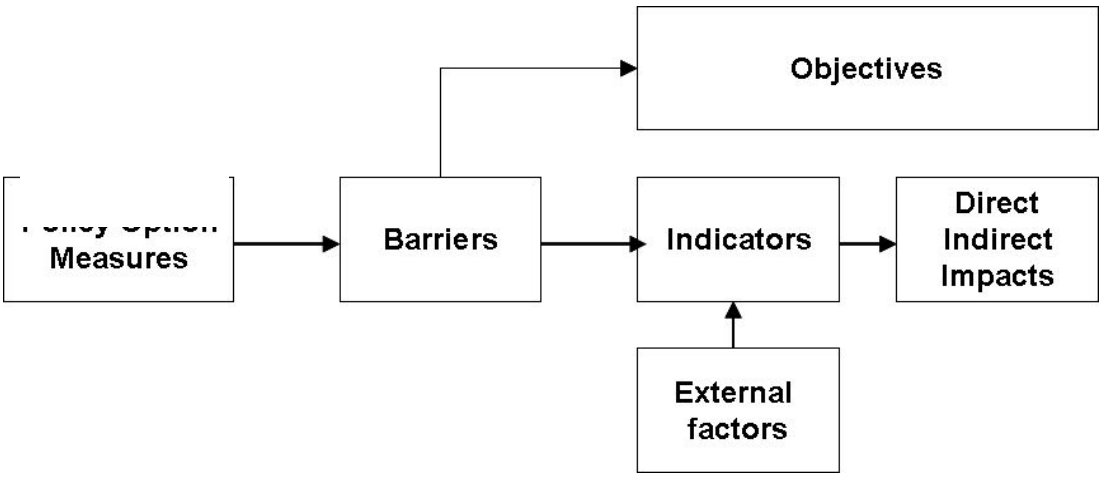



*Figure 9: Coefficients of the regression model*

The diagram illustrates the main cause-effect relationships identified. These relationships were used both to identify and to quantify impacts. Furthermore they were used to quantify the degree to which the specific objectives are reached.

The **effects** associated with the proposed package of modifications (i.e. the **causes**) on the removal of **barriers** to market opening and development were identified. The barriers were represented according to the "Rail Liberalisation Index 2007" report by IBM with the appropriate sub-indexes. This relationship was quantified where possible.

The **effects** of the removal of **barriers** (**causes**) are: i) to reach to a certain degree the specific **objectives**; ii) variations of related **indicators**. These **indicator** variations are therefore **direct impacts** of the proposed package of modifications.

In turn, one of the **direct impacts**, namely the variation of rail-freight modal share, was recognised to cause other **indirect impacts**, that is: administrative costs (partly), number of transport related fatalities, employment, external costs for air pollution, noise, climate change, energy consumption.

At the end of this exercise all the relevant impacts had been identified and the distinction of quantitative/qualitative and direct/indirect impacts was accomplished.

4.5. Assessment of quantitative impacts

A mathematical model which quantifies the logical sequence of the cause-effect diagram was used for the four indicators showing a reasonable degree of correlation with the six LIB sub-indexes shown in table 89: modal share of rail freight, number of non-incumbent RUs, market share of non-incumbent RUs, average operating costs for RUs. The model is structured as follows:

representation of the "package of modifications - barrier removal" cause-effect link: this is achieved through a "measure effectiveness model", on the basis of stakeholder consultation results and expert judgment; a degree of effectiveness is attributed to each modification and combined with the maximum possible future variation of LIB sub-index points to obtain an estimate for actual future variation of the LIB index;

representation of the "barrier removal - indicator variation" cause-effect link: this is achieved through the regression model which directly descends from the correlation analysis of table 89) above; the LIB sub-index variations output from the measurement effectiveness models thus allow to predict future variations of modal share of rail freight and of the other three indicators (whose variations are "direct impacts") for which correlation shows some statistical significance;

representation of the "indicator - impact" cause-effect link: the variations of the four indicators for which correlation shows some statistical significance (modal share, etc.) are considered “direct impacts” and require no further calculations, while the other quantitative “indirect impacts” are not derived directly from the regression model rather:

from the variation of modal share of rail freight, for environmental impacts, variations in fatalities and employment;

with a bottom-up analysis according to the “micro-assessment approach” for administrative costs.

**Uncertainties of the model**

The uncertainties associated with this model were evaluated through a sensitivity analysis which shows that the results of the impact assessment are not particularly sensitive to the main sources (baseline data, assumptions on the effectiveness of the proposed modifications in removing barriers, use of mathematical model). In this sense one impact deserves special mention: variations in average operating costs for Railway Undertakings, for which small variations lead to very large overall savings.

The problem addressed in this impact assessment is very sensitive to these costs. However, due to the quality of the data available, the analysis conducted lacks robustness, although showing a satisfactory degree of statistical significance in the correlation between the LIB sub-index related to operational barriers and average operating costs. This means that, assuming the correctness of the available data, there is some positive correlation of variations in operating costs with market opening – however other non-investigated factors have a greater influence on this impact and therefore the quantitative estimate cannot be taken to be extremely reliable.

Table 89b below illustrates the effect of a plus or minus 25% variation of the index representing the maximum fraction of LIB points removed by the proposed measures (index $K_{biii}$) on economic impacts. It reveals that in most cases, a variation of 25% in the index will have an insignificant effect on the overall impact of the package on the baseline (e.g. the impact of the package – presuming that 100% of the maximum possible LIB points are removed by all measures – will result in 36 new RUs, while a positive or negative variation of 25% in the points removed results in a marginal difference of 1 RU).

*Table 89b: values of predicted impacts, year 2020, for 3 different ranges of values for index $K_{biii}$*

| | $K_{biii}$ | Baseline | Package |
|---|---|---|---|
| Rail freight (100M t-km) | 75% | 512,7 | 521,1 |
| | 100% | 512,7 | 523,7 |
| | 125% | 512,7 | 526,3 |
| Modal share freight (% t-km freight / t-km total) | 75% | 15,8% | 16,0% |
| | 100% | 15,8% | 16,1% |
| | 125% | 15,8% | 16,2% |
| Number of non incument RU (n) | 75% | 1004 | 1039 |
| | 100% | 1004 | 1040 |
| | 125% | 1004 | 1041 |
| Market share of non incumbent RU in the rail freight market (% tr-km new/incumbent) | 75% | 28,4 | 29,10 |
| | 100% | 28,4 | 29,10 |
| | 125% | 28,4 | 29,10 |
| Average operating costs for RU (€/year-tr-km) | 75% | 13,75 | 12,53 |
| | 100% | 13,75 | 12,52 |
| | 125% | 13,75 | 12,52 |
| Difference in NOx emissions (net - rail+road) | 75% | 0 | -2840 |
| | 100% | 0 | -3721 |
| | 125% | 0 | -4605 |
| Difference in PM emissions (net - rail+road) | 75% | 0 | -60,5 |
| | 100% | 0 | -79,3 |
| | 125% | 0 | -98,1 |
| Difference in CO2 emissions (net - rail+road) | 75% | 0 | -402 |
| | 100% | 0 | -527 |
| | 125% | 0 | -652 |
| Difference in energy consumption (net - rail+road) | 75% | 0 | -145,7 |
| | 100% | 0 | -190,9 |
| | 125% | 0 | -236,1 |
| Difference in external costs for noise emission (net - rail+road) | 75% | 0 | 0,18 |
| | 100% | 0 | 0,23 |
| | 125% | 0 | 0,29 |

## 4.6. Assessment of qualitative impacts

Qualitative impacts were assessed by identifying a direct cause-effect relationship between single modifications within the proposed package of modifications and the impacts themselves. The effectiveness of each modification was represented by a score ranging from 0 to 1. The overall effectiveness of the package of modifications was assessed simply by summing the scores of the related modifications.

4.7. Assessment of the degree to which specific objectives are expected to be achieved

All specific objectives of the proposed initiative are correlated (see Table 90) with the removal of the **barriers** used for the quantitative impact analysis, represented by the LIB sub-indexes.

*Table 90: Relationships between Barriers and Objectives – the removal of Barriers allows the Objectives to be reached totally or in part*

| SPECIFIC OBJECTIVES / BARRIERS | **1**. Improving non discriminatory access to service facilities | **2.** Enhancing transparency of the functioning of the institutional framework on the railway market | **3.** Enhance co-operation and co-ordination to facilitate international rail transport | **4.** Provide effective incentives for sound and sustainable financing of railway system | **5.** Enhancing the independence and the competencies of the regulatory body |
|---|---|---|---|---|---|
| **$B_I$ - LI. (Barriers related to the) Organisational Structure of the Incumbent** | X | X | | X | |
| **$B_{II}$ -LII (Barriers related to the) Regulation of Market Entry** | X | | | X | X |
| **$B_{III}$ -LIII (Barriers related to the) Competence of the Regulatory Authority** | | X | X | | X |
| **$B_{IV}$ -AI Information Barriers** | | X | X | X | |
| **$B_V$ AII Administrative Barriers** | | X | X | X | X |
| **$B_{VI}$ - AIII Operational Barriers** | X | X | X | X | X |

It was thus possible to provide a quantitative / qualitative assessment of the degree to which the specific objectives can be expected to be achieved on the basis of the variations of the LIB sub-indexes calculated by the measure effectiveness model of 5).

A list of relevant impacts and stakeholders affected is presented in Annex XV.

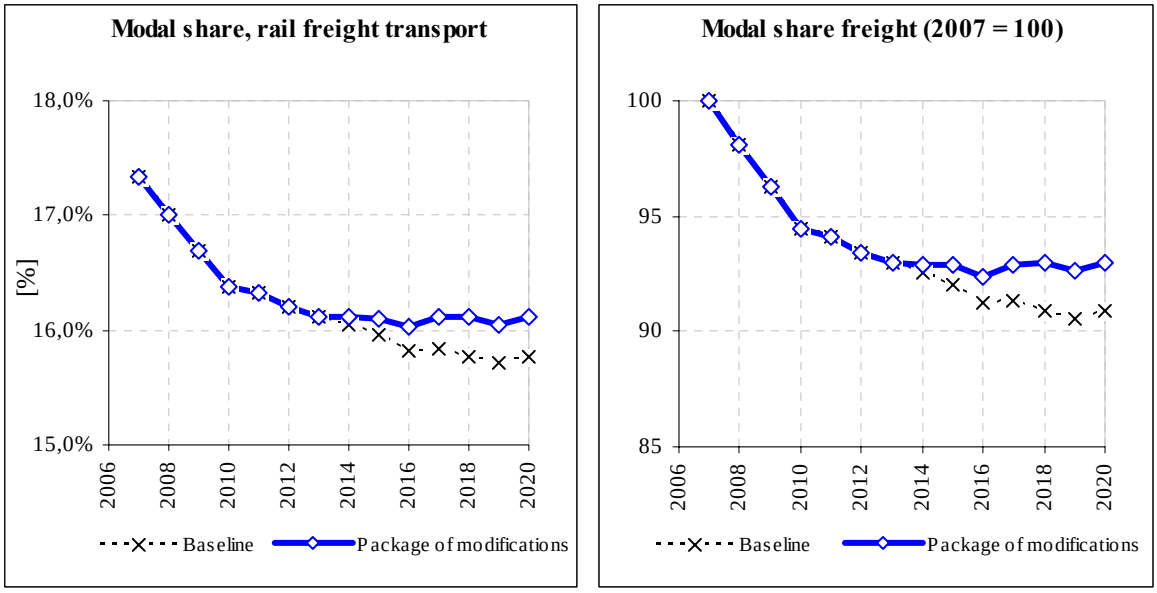
## 5. Economic Impacts

5.1. Competition and opening of the rail market

*5.1.1. Modal share of rail freight transport*

The projections based on the regression between the variations of the 7 LIB sub-indexes and modal share are shown in Figure 10.

*Figure 10– Predicted impacts of the Package of modifications on freight transport modal split in the EU27*




*Source: PwC elaboration (2009).*

The general comments regarding these results are:

- the Package of modifications considered in this study is not expected to have a substantial influence on freight modal share at the EU level; however, even the small effects reported (less than 2% of the 2007 value of modal share) seems to be able to lead to a stabilisation or earlier inversion of the baseline negative trend, which lasts until 2019;

- in Belgium, Denmark and Finland the Package of modifications may contribute to the stabilisation or inversion of a trend which otherwise, i.e. in the baseline scenario, would decrease;

- the maximum effects are expected in the three Baltic countries, although the trends in these countries will continue to decrease.

#### 5.1.1.1. Development of rail related services

According to the cause-effect analysis, modifications which are considered to have a potential impact on the development of rail-related services, for example in terms of number of service providers, are modifications M1, M2, M 3, M 4, M14, M19, M22, M24 and M25.

However, the effect of modifications M4, M14, M19, M22, M24 and M25 on the development of rail related services can be considered negligible. The potential increase in rail freight transport connected with these modifications, or with any other modification for that matter, could have an effect on the development of the market. However, this is a second order effect and is not quantifiable on the basis of the data available for this study. In addition, even if modification 4 could have a small effect on the development of the service market, this effect is linked to the different degrees of opening of the energy market, external to the rail sector.

The modifications contained in the Package that are considered to have a relevant effect on rail related services are thus M1 (medium effect), M2 (high effect) and M3 (medium effect). The consequent scores attributed are reported in Table 92.

The results of the assessment are described here.

*Table 92: Qualitative score attributed to the effectiveness*

| Modification | Qualitative score |
|---|---|
| **Modification 1**: Rail Regulatory Bodies should develop guidelines on the interpretation of the provisions concerning access to rail related services and pricing of services in order to:<br>clarify that it is not necessary to be a railway undertaking to provide rail related services (e.g. driver training);<br>define what a 'viable alternative by rail under market conditions';<br>define of common structures and formats of charges for rail related services based on best practice (e.g. principles of cost estimation and cost recovery). | 0.5 |
| **Modification 2:** Introduction of independence requirements for the management of service facilities from rail transport provision (i.e. legal, organizational and decision making independence). | 1.0 |
| **Modification 3** Introduction of 'Use-it-or-lose-it' provisions for the management of rail related service facilities. | 0.25 |
| **Qualitative score** | **1,75** |

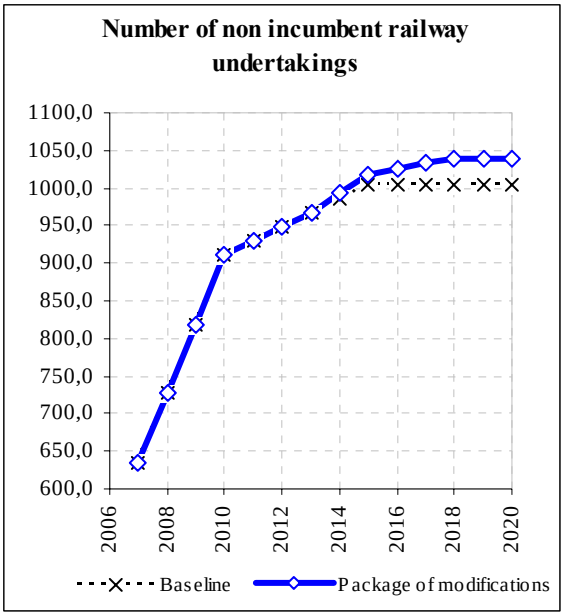
*Source: PwC elaboration (2009).*

Modifications have been assigned a relative score ranging from 0.25 to 1. M3 is deemed to have the highest effectiveness with respect to the opening of the rail-related service market.

5.1.1.2. Number of new entrants in the rail freight market

The projections based on the regression between the variations of the 7 LIB sub-indexes and the number of non-incumbent Railway Undertakings are shown hereunder.

*Figure 11: Predicted impact of the Package of modifications on the number of non-incumbents in the EU27*




*Source: PwC elaboration (2009).*

*Table 93: Project number of additional non-incumbent RUs in the 25-IA countries generated by the Package of modifications*

| Year | Project number |
|---|---|
| 2007 | 0 |
| 2008 | 0 |
| 2009 | 0 |
| 2010 | 0 |
| 2011 | 0 |
| 2012 | 0 |
| 2013 | 0 |
| 2014 | 7 |
| 2015 | 14 |
| 2016 | 22 |
| 2017 | 29 |
| 2018 | 36 |
| 2019 | 36 |

| | |
|---|---|
| 2020 | 36 |

*Source: PwC elaboration (2009).*

The following general remarks can be made:

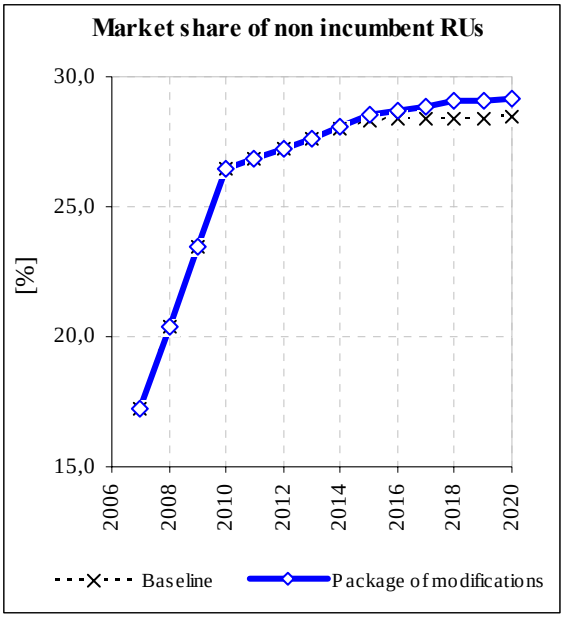
– the modifications proposed in the initiative addressed by this study should be capable of generating up to 3-4% more new Railway Undertakings than in the baseline scenario;

– the largest effects are expected in France, where market opening has progressed slowly and market conditions for new undertakings exist.

5.1.1.3. Market share of new entrants in the rail freight market

The projections based on the regression between the variations of the 7 LIB sub-indexes and the market share of non-incumbent Railway Undertakings are shown in Figure .

*Figure 12: Predicted impacts of the Package of modifications on market share of non-incumbents in the EU27 (figures result from the market share of each of the 25-IA countries weighted on the basis of rail t-km)*




*Source: PwC elaboration (2009).*

The following general remark can be made:

– the modifications proposed in the package should be capable of generating up to 2-3% more market share for non-incumbents than in the baseline scenario.

### *5.1.2. Quality of rail transport*

#### 5.1.2.1. Safety: number of fatalities

The modal shift generated by the implementation of the Package of modifications has a direct effect on safety. The difference in relation to the baseline scenario in terms of fatalities in road transport is then calculated as the number of fatalities avoided by shifting freight traffic (tonne-km) from road to rail.

The main results are summarised in the following table, in a time series which highlights the different effects on safety, in accordance to the timeframe, i.e. the partial or full implementation of the different proposed modifications.

*Table 94: Number of fatalities deriving from implementation of the Package of modifications against baseline scenario per year*

| Year | Number of fatalities |
|---|---|
| 2007 | |
| 2008 | |
| 2009 | |
| 2010 | |
| 2011 | |
| 2012 | |
| 2013 | |
| 2014 | -112 |
| 2015 | -140 |
| 2016 | -168 |
| 2017 | -196 |
| 2018 | -280 |
| 2019 | -280 |
| 2020 | -280 |

*Source: PwC elaboration (2009).*

The maximum number of fatalities in road freight transport avoided per year by the modal shift generated by the implementation of the proposed modifications is 280 from 2018 onwards.

5.1.2.2. Punctuality and reliability of international freight trains

Punctuality depends on processes, but also on infrastructure. A high capacity utilisation is widely assumed to reduce punctuality; this is even truer when the rail network is a shared network, for both passenger and freight trains, and usually the passenger services still have priority over freight services. Another factor which has a great level of influence on punctuality is the distance from origin to destination, which is a major factor in international rail traffic and the interoperability problems in international rail transport.

It is probably for these reasons that a low or very low correlation was found between market opening (LIB sub-indexes) and the available data (Stakeholder consultation data and available literature). Thus it was not possible to construct a regression model for this impact.

Possibly more important in characterising the quality of freight rail transport is the reliability of the service (correlated for example to the number of trains cancelled relative to trains planned). Even less data is available in this case.

According to the cause-effect analysis, almost all modifications in the Package have a potential effect on the punctuality and reliability of trains. However, a simple qualitative analysis was carried out to identify the modifications which could have a significant effect on punctuality and reliability. These are shown in Table  along with the scores assigned.

*Table 95: Qualitative score attributed to the effectiveness*

| Modification | Qualitative Score |
|---|---|
| **Modification 3:** Introduction of 'Use-it-or-lose-it' provisions for the management of rail related service facilities. | 0.75 |
| **Modification 13:** Extend the monitoring of the rail market to items such as rail infrastructure investments, developments of prices and quality of rail transport services and public service obligations for rail passenger transport | 0.25 |
| **Modification 22:** Define more clearly the main characteristics and general principles of performance regimes that are compatible across Member States (e.g. definition of a minimum set of delay causes with assigned responsibilities, including a harmonised definition of the point from when a delay is counted, allow different market segments in the design of a performance regime, 'notwithstanding the non-discrimination requirements, define the treatment of delays as they build up before a train arrives the border or as they build up at the border) and extend the international cooperation of Infrastructure Managers to international rail traffic management or infrastructure charging (e.g. European performance Regime) | 1.00 |
| **Qualitative score** | **2.00** |

*Source: PwC elaboration (2009).*

Two important issues must be stressed:

– two main factors with opposite effects on punctuality and reliability are foreseeable in the context of this study: the increase of rail traffic, with the certainty of negative effects unless counter-modifications are put in place, and the increased attention towards customers, which could lead to a possible improvement, although the constraints could impair this effect;

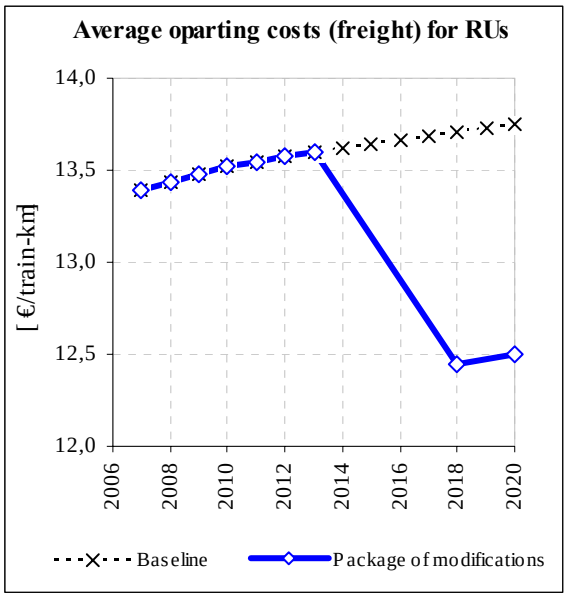
– punctuality and reliability are among the least predictable impacts in this study – it is important to consider them carefully in the monitoring scheme associated with the implementation of the modifications.

### *5.1.3. Cost of transport*

#### 5.1.3.1. Average operating costs for Railway Undertakings

The projections of the average cost per train-km are based on the regression between the variations of the LIB sub-index AIII due to the implementation of the Package of modifications. The trend in the years 2007-2020 is depicted in Figure 13 .

*Figure 13: Predicted impacts of the Package of modifications on average operating costs in the EU27 (figures result from the available average costs of each of the 25-IA countries weighted on the basis of rail t-km).*




*Source: PwC elaboration (2009).*

It is expected that the implementation of the Package of modifications could reduce the average operating cost up to about 12,5 €/train-km, with respect to the almost constant value of about 13,4 expected in the baseline (-6%).

### *5.1.4. Administrative cost*

The implementation of the package of modifications would imply additional costs for the concerned stakeholders in terms of organisation, planning, development and management of specific programmes, action plans, procedures, and/or structures required by the new legal framework.

Administrative costs have been identified according to the Commission guidelines as "*the cost incurred by different stakeholders in meeting legal obligation to provide information*

(including cost of labelling, reporting, monitoring to provide the information and registration) *on their action or production, either to public authorities or to private parties*".

The types of administrative information obligation and required action have been identified according to the classification provided in Chapter 10 of the new Impact Assessment Guideline (2009)[55]. These primarily consist of new requirements for publication for MS, infrastructure managers, managers of terminals and licensing bodies as follow: MS with regard to the framework for charging rules and the medium long term development strategy, IMs with regard to further information to be provided in the network statement, Managers of terminals with regard to access conditions (prices and use) to service facilities and licensing bodies with regard to conditions to grant licenses.

Cost parameters: for the purpose of this study include:

a) cost parameters for actions developed by the targeted entity itself: number of hours spent to develop the specific action, multiplied by the hourly pay plus the overheads;

b) cost parameters for equipment and supplies (for instance, in relation to the M19, on Rail Noise DTAC, the costs of instrument for "silent" wagon controls or the costs of specific labels to apply on "silent" wagons);

c) cost parameters for the "outsourced activities"(administrative actions outsourced to external providers): the service provider charges per activity could be calculated considering an "overall service provider" charge per action or by multiplying the hourly fee charged (the service providers "external" tariff) by number of hours spent on the specific actions.

According with the Commission requirement and Impact Assessment Guidelines, Administrative costs are mainly assessed on the basis of the average cost per action ("P") of total number of action performed per year, defined multiplying frequency ("F") and number of entities concerned ("NE").

$$AdmCost = P_{Action\,i} * F_{Action\,i} * NE_{Action\,i}$$

Moreover, the average cost per action is estimated by multiplying a tariff (based on the average labour cost per hour including prorated overheads) by the time required per action.

This impact assessment has employed the Micro Assessment Approach[56] and a detailed assessment of individual pieces of legislation (action related to specific legislative measure), has been used.

Two types of administrative cost have been taken into account: **one-off administrative costs**, defined as start up-cost or costs incurred when re-designing the way administrative obligation or specific action are met; and **recurrent administrative costs**, defined as annual costs.

In order to further understand the differences between administrative costs of the policy options, the following figure summarises the total "one-off" and "recurrent" administrative

55 See note 1

56 SEC (2005) 175 Minimising administrative cost imposed by legislation

costs due to the implementation of the modifications both for public authorities and business (See Annex XIII for details.)

## 6. Social Impacts

### 6.1. Employment

#### *6.1.1. Employment within the rail industry*

Data on impacts are assessed as differentials from the baseline scenario. Impacts are examined for each year composing the EU trend 2007-2020 and considering the different staff categories for freight trains and terminal operations, the latter being rail related services for which employment is mainly dependent to rail traffic.

Results are showed both in terms of difference in staff hours, and difference in FTE.

The present section includes also an assessment of impacts generated on the employment in road transport by the modal shift foreseen with the implementation of the Package of modifications.

#### *6.1.2. Rail transport – overview*

By 2020, the implementation of the Package of modifications shows a very relevant impact on employment, with a positive differential towards the baseline scenario of over 1.700.000 working hours equal to more than 1.000 additional workers from 2018 onwards.

This outcome has to be considered as the main impact on employment generated by the implementation of the Package of modifications. Excluding terminal staff, the additional increase of estimated workforce demand is about 0,04% of the total workforce active in the total number of RUs and IMs in the baseline scenario.

The following table summarises in a time series the impacts on employment deriving from the implementation of the Package of modifications.

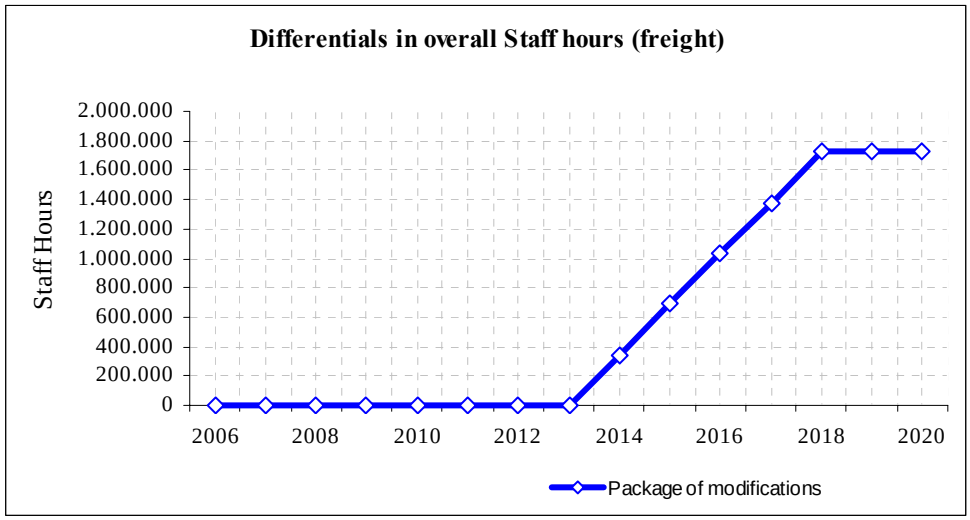
*Table 96: Difference in overall Staff hours and FTE against baseline scenario– time series*

| Year | FTE | Staff hours |
|---|---|---|
| 2007 | - | - |
| 2008 | - | - |
| 2009 | - | - |
| 2010 | - | - |
| 2011 | - | - |
| 2012 | - | - |
| 2013 | - | - |
| 2014 | 201 | 344.447 |

| Year | FTE | Staff hours |
|---|---|---|
| 2015 | 403 | 688.893 |
| 2016 | 604 | 1.033.340 |
| 2017 | 806 | 1.377.787 |
| 2018 | 1.007 | 1.722.234 |
| 2019 | 1.007 | 1.722.234 |
| 2020 | 1.007 | 1.722.234 |

*Source: PwC elaboration (2009).*

*Figure 14: Differentials in overall Staff hours (freight)– time series*




*Source: PwC elaboration (2009).*

The following table summarises the results in terms of working hours per category.

*Table 97: Maximum additional FTE and staff hours per worker category, against baseline scenario*

| Staff category | FTE | Staff hours |
|---|---|---|
| Freight train drivers | 147 | 252.017 |
| Shunting/marshalling workers | 153 | 261.163 |
| Monitoring of trains | 43 | 73.110 |

| Staff category | FTE | Staff hours |
|---|---|---|
| Cross-border operations | 94 | 160.339 |
| Terminal/transhipment operations | 571 | 975.605 |

*Source: PwC elaboration (2009).*

The main effects in terms of employment are in terminal and transhipment operations. This is not surprising since terminals – as fundamental junctions between modes in the intermodal and rail transport chain – are the nodes where the train is loaded and unloaded, i.e. where the many units of which the cargo of a train is composed are put together on a single convoy.

*Freight train drivers*

Results evidence an additional demand of freight train drivers estimated at over 250.000 person-hours per year. This corresponds to over 140 additional workers.

*Shunting/marshalling workers*

The calculation leads to an additional increase of over 260.00 person-hours per year, corresponding to over 150 additional workers.

*Monitoring of trains*

The results show an additional demand of freight train drivers estimated at over 70.000 person-hours per year. This corresponds to over 40 additional workers.

*Cross-border operations*

The calculation shows an increase of over 160.000 person-hours per year. This corresponds to over 90 additional workers.

*Terminal/transhipment operations*

The results reveal an additional demand of freight train drivers estimated at over 970.000 person-hours per year. This corresponds to roughly 570 additional workers.

### *6.1.3. Road transport*

The modal shift from road to rail results in a slight decrease of employment in road transport.

The reduction of demand of truck drivers is at just over 700 FTE per year. This is the outcome of a maximum reduction of working time on trucks (including break times) of about 1.470.000 person-hours per year.

*Table 98: Difference in road transport Staff hours and FTE against baseline scenario– time series*

| Year | FTE | Staff hours |
|---|---|---|
| 2007 | - | - |

| Year | FTE | Staff hours |
|---|---|---|
| 2008 | - | - |
| 2009 | - | - |
| 2010 | - | - |
| 2011 | - | - |
| 2012 | - | - |
| 2013 | - | - |
| 2014 | -286 | -579.112 |
| 2015 | -357 | -723.891 |
| 2016 | -429 | -868.669 |
| 2017 | -500 | -1.013.447 |
| 2018 | -715 | -1.447.781 |
| 2019 | -715 | -1.447.781 |
| 2020 | -715 | -1.447.781 |

*Source: PwC elaboration (2009).*

### *6.1.4. Education and mobility of workers in the rail sector, working conditions of workers in the rail sector*

Some modifications contained in the Package may have positive impact, either on the level of employment of working categories and rail related services, or on working conditions. Education, mobility and skill level are the key indicators for improved working conditions in this context.

According to the cause-effect analysis almost all modifications have potential effect on education and mobility of workers. In order to identify those modifications that would have a sensible effect the following analysis was carried out.

In general terms, the access to the market of new operators leads to a higher demand of rail related services, such as supply of energy, terminal services, and all ancillary and additional services addressed by Article 11 of Dir. 2001/14/EC.

In particular, modifications to attain the objective of "Improving non-discriminatory access to service facilities and fostering competition" are expected to have a certain level of effectiveness in increasing employment in related services. Furthermore, services which are positively affected are, according to the evaluation proposed: services in freight terminals, marshalling and shunting yards, passenger stations, train formation services; training services, leasing of staff. Other groups of modifications show very weak or no relevant relations with the rail related services, concerning the assessment of socio-economic variables.

The increased demand in the provision of such rail related services may lead to improved working conditions, and above all to an increased demand of skilled personnel, and staff prepared to higher mobility and to work abroad. Implementation of the Package of modifications will boost the trends identified in the baseline scenario. Moreover, the increased demand for skilled personnel and staff able to speak more than one language can help the railway sector in bridging the 'skills gap' identified, also with an increased demand of training centres.

A list of the modifications contained in the Package most likely affecting working conditions and employment in rail related services are summarised in the following table, with the related qualitative score of effectiveness. Education, mobility and skill level are the key indicators for improved working conditions in this context.

*Table 99: Qualitative score attributed to the effectiveness*

| Modification | Qualitative Score |
|---|---|
| **Modification 1**: Rail Regulatory Bodies should develop guidelines on the interpretation of the provisions concerning access to rail related services and pricing of services in order to:<br>clarify that it is not necessary to be a railway undertaking to provide rail related services (e.g. driver training);<br>define what a 'viable alternative by rail under market conditions';<br>define of common structures and formats of charges for rail related services based on best practice (e.g. principles of cost estimation and cost recovery). | 0.75 |
| **Modification 2:** Introduction of independence requirements for the management of service facilities from rail transport provision (i.e. legal, organizational and decision making independence). | 0.2 |
| **Modification 3:** Introduction of 'Use-it-or-lose-it' provisions for the management of rail related service facilities. | 0.2 |
| **Modification 4:** Use of electrical supply equipment for traction current should be defined as part of minimum access package (group 1 of Annex II - Directive 2001/14). Traction network operator would be subject to non-discrimination requirements. Energy charges and invoices should show separately the charges for using the electrical supply equipment and for traction current. | 0.1 |
| **Modification 10:** Infrastructure managers to publish the Network Statement in a second of official EU language and in an electronic form on the web accessible for instance through a web portal of the European Railway Agency (ERA). | 0.50 |
| **Modification 11:** Infrastructure managers to publish references to relevant information on access to service facilities (beyond the tariff information currently required), including those in border crossing station. | 0.50 |
| **Modification 12:** Oblige licensing body to publish clear list of requirements, indicative response times to process application and schedule of fees | 0.25 |
| **Modification 19:** Introduce differentiation of track access charges depending on the noise emission characteristics of the rolling stock composing the train. | 0.50 |
| **Modification 22:** Define more clearly the main characteristics and general principles of performance regimes that are compatible across Member States (e.g. definition of a minimum set of delay causes with assigned responsibilities, including a harmonised definition of the point from when a delay is counted, allow different market segments in the design of a performance regime, 'notwithstanding the non-discrimination requirements, define the treatment of delays as they build up before a train arrives the border or as they build up at the border) and extend the international cooperation of Infrastructure Managers to international rail traffic management or infrastructure charging (e.g. European performance Regime). | 0.50 |
| **Qualitative score** | **3.50** |

*Source: PwC elaboration (2009).*

In particular, the following qualitative conclusions can be drawn:

- Regulatory bodies issuing guidelines for accessing rail-related services facilitate the provision of rail related services by independent bodies, as well as increased competition and demand for skilled staff in rail related services. The mobility of workers will be enhanced as a results of the increased competition;

- Modifications enhancing an independent management of rail related services and the provision of rail related services on a more transparent basis may lead to establishment of new companies and demand for skilled personnel, with the same conclusion on mobility of workers;

- The publishing of the Network Statement in a second official language may lead to easier market access by foreign operators, and a higher demand for language skilled workers;

- The issuing of clearer guidelines and requirements for licensing (and safety certification) could facilitate the establishment of a higher supply of consultancy services for the preparation of licensing and safety procedure documents. It could lead to a higher education level of persons employed in the (broader) process of safety procedure and licensing applications;

- The introduction of differentiated track access charges depending on noise emission characteristics may lead to the establishment of a specific market of environmental audits, leading to a higher demand of skilled personnel;

- The issuing of more clear guidelines for performance regimes may have effects on the establishment of a specific working function within IMs and RUs, devoted to monitoring continuously the matching of bonuses and penalties provided by the higher number of performance regimes issued.

- The general demand for more skilled personnel leads in turn to a higher demand of training centres, and to a higher quality of training, more focused in the development of professional figures devoted in higher added value activities.

## 7. Environmental Impacts

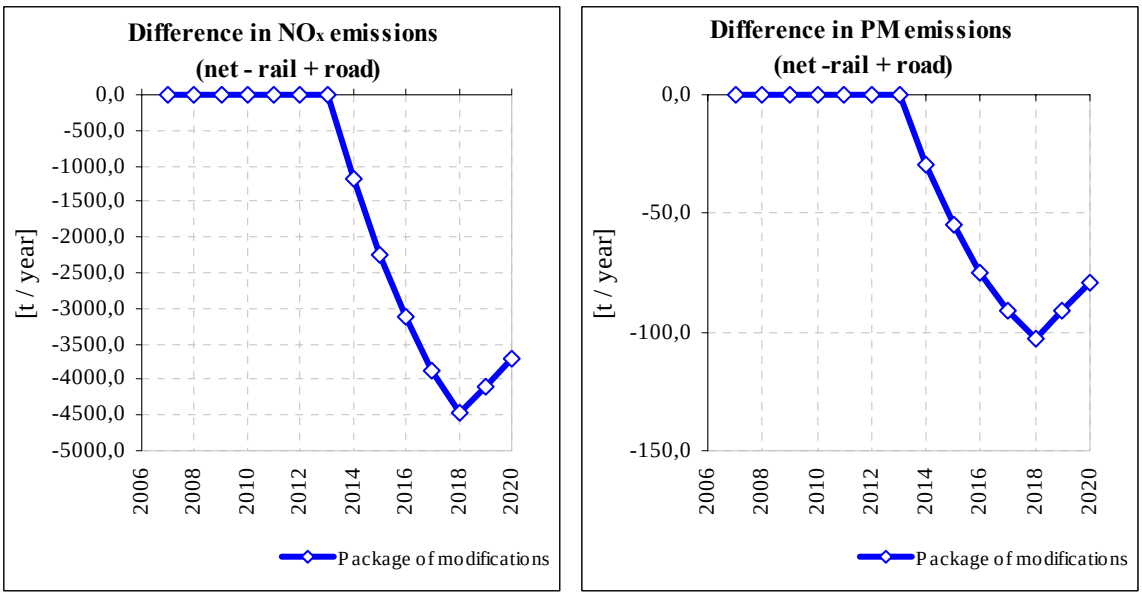
### 7.1. Air quality

It is expected that the implementation of the modifications will provide benefits in air quality.

In fact, two different effects superimpose each other: on one hand, benefits should improve over the time because of the progressive enhancement of the effect produced by the modifications; on the other hand, the unitary benefit reduces because of the progressive introduction of more restrictive European standards on pollutant emissions by road vehicles.

The highest benefits of the implementation of the Package of modifications occur in the year 2018 (about 4.500t less of NOx and 100t less of PM).

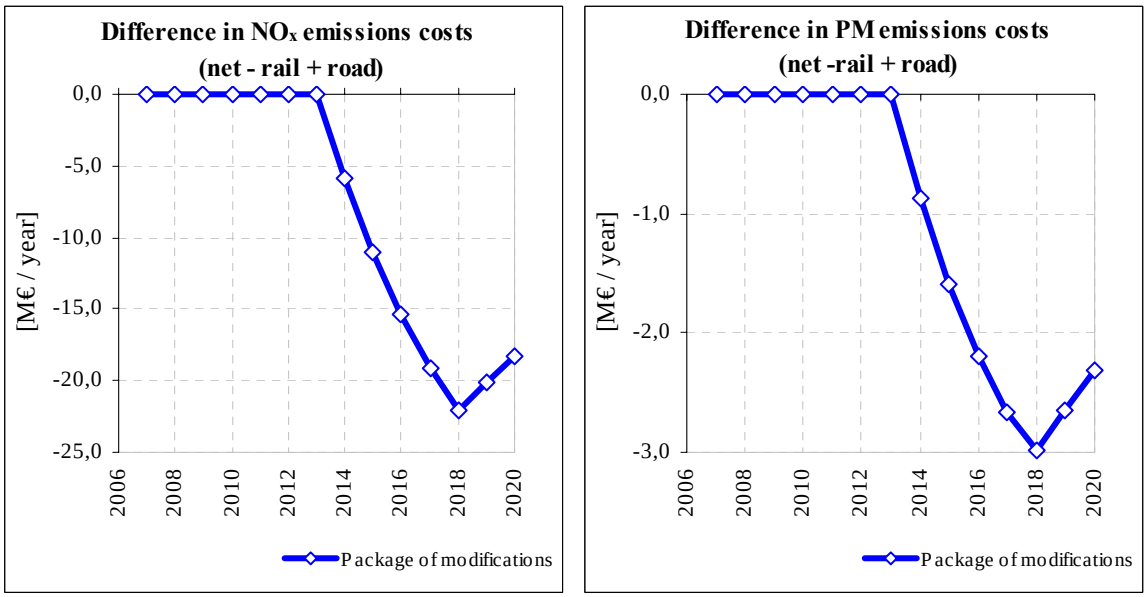
*Figure 16: Predicted impacts of the Package of modifications on the pollutant emissions as the difference of physical emissions of NOx (on the left) and PM (on the right)with respect to the baseline scenario*




*Source: PwC elaboration (2009).*

In monetary terms, the highest benefits from NOx reduction are about 22M€, while the highest benefits from PM account for 3 M€.

*Figure 17: Predicted impacts of the Package of modifications on the pollutant emissions as the difference of external costs associated to NOx (on the left) and PM (on the right)with respect to the Baseline scenario*

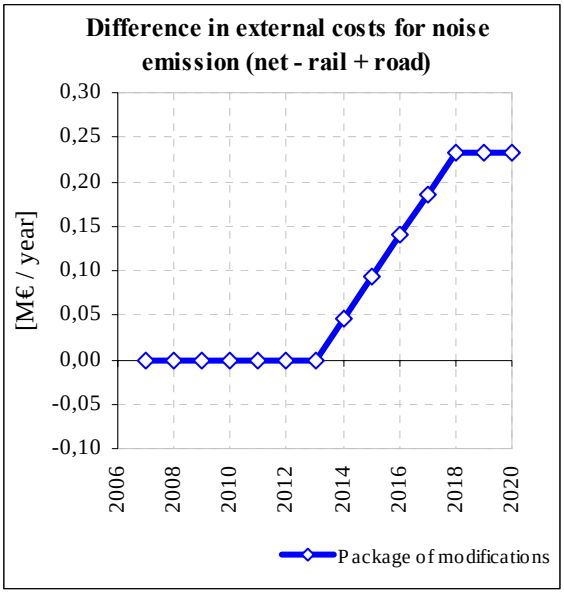


## 7.2. Noise emissions

On the basis of the assumptions introduced in the impact analysis, it is expected that the implementation of the Package of modifications could be disadvantageous in terms of noise emissions due to increased traffic (which is off-set by noise-abatement measures).

Even if all assumptions made are cautionary, the disbenefits due to the increase of noise emissions are about 1/10 of the benefits achieved by reducing the emission of pollutants expressed as external costs.

***Figure 18:*** *Predicted impacts of the Package of modifications on the noise emission as the difference of external costs with respect to the baseline scenario*




*Source: PwC elaboration (2009).*

As can be inferred from the above figure, the implementation of the Package of modifications would represent external costs for noise emission of about 0,2 M€ by the year 2018.

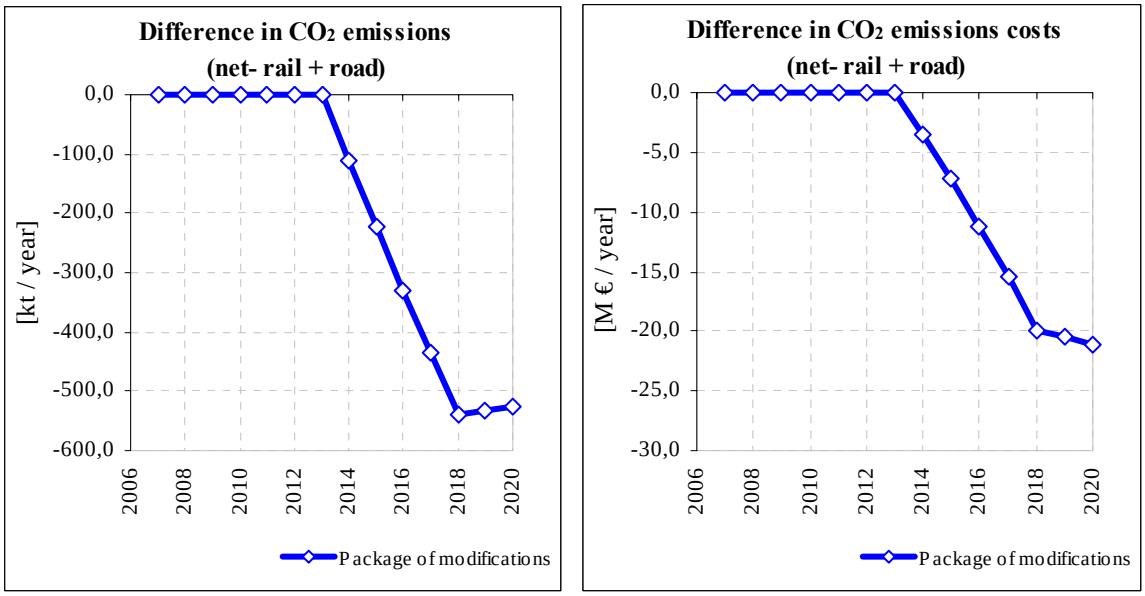
## 7.3. Climate

The impact on the climate change, estimated through the emission of CO2, should follow a similar trend as that on the air quality.

In this case, the technological enhancement depends on the voluntary agreement actions of manufacturers in order to reduce $CO_2$ and then would affect less the effect produced by the implementation of the Package of modifications on the modal shift form the road to the rail.

It results that the highest benefits (about 530kt of $CO_2$ less) are expected in the year 2018.

***Figure 19:*** *Predicted impacts of the Package of modifications on the climate change as the difference of CO2 emission with respect to the Baseline scenario (on the left)) and the related external costs (on the right).*




*Source: PwC elaboration (2009).*

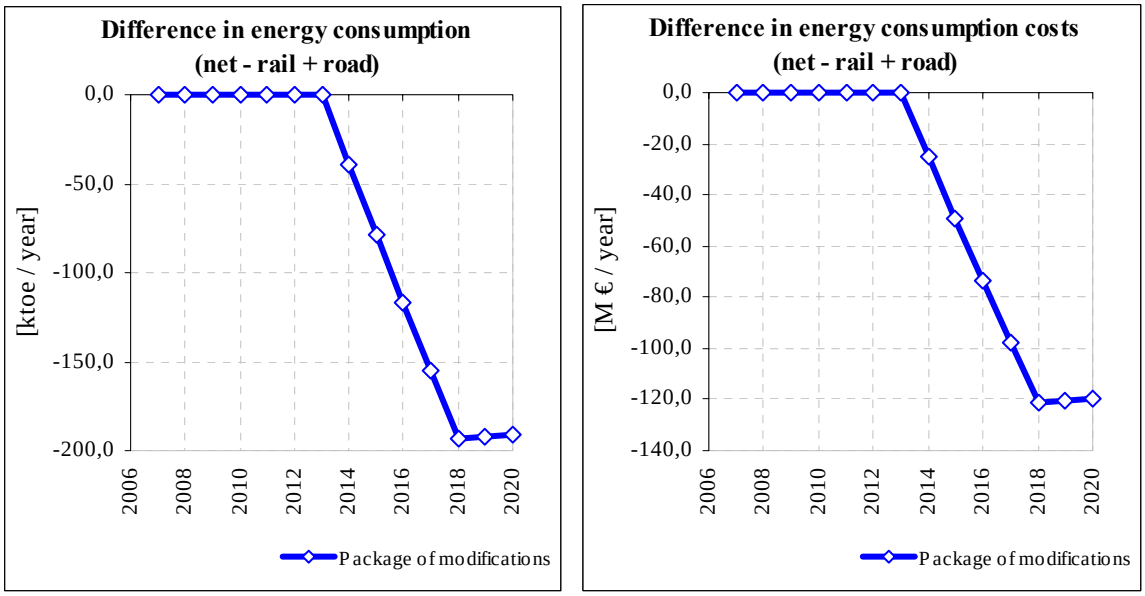
As for CO2 emission, the benefit reduction due to technology enhancement would be more than compensated when it is expressed as external costs, because of the recommended increase of the unitary cost of CO2 over the time, which doubles from the present (about 20€/t) to 2040 (about 40€/t).

Finally, the estimation of the benefits deriving from the reduction of CO2 emissions could be quantifiable in about 20M€ in the year 2018.

### 7.4. Use of energy

Benefits due to the reduction of energy consumption are expected to have their maximum effect in the year of full implementation of the Package of modifications and then decrease slightly because of the anticipated enhancement of energy efficiency expected for HDVs with respect to rail transport.

***Figure 20:*** *Predicted impacts of the Package of modifications on energy use as the difference of energy consumption with respect to the Baseline scenario (on the left) and the related external costs (on the right).*




*Source: PwC elaboration (2009).*

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The highest expected benefits are near 190ktoe.

The estimation of the external costs highlights that the reduction of energy use due to the implementation of the Package of modifications would provide the largest environmental benefits in the order of 120M€ in the year 2018 .

## ANNEX XV: LIST OF RELEVANT IMPACTS AND STAKEHOLDERS AFFECTED

| Impact | | Assessment type | Unit | Main affected stakeholders |
|---|---|---|---|---|
| **Economic Impacts** | | | | |
| **Impact on** | **Variations of:** | | | |
| Competition and opening of the rail market | Modal share of rail freight transport | **Quantitative** (regression model) | % (function of time) | All |
| | Modal share of passenger transport | **Qualitative** (score for measure effectiveness) | - | All |
| | Development of rail related services | **Qualitative** (score for measure effectiveness) | - | All |
| | Number of new entrants in the rail freight market | **Quantitative** (regression model) | n. (function of time) | Incumbent RUs<br>New RUs |
| | Market share of new entrants in the rail freight market | **Quantitative** (regression model) | % (function of time) | Incumbent RUs ,<br>New RUs |
| Cost of transport | Average operating costs for Railway Undertakings | **Quantitative** (regression model) | € / ton-km year<br>(function of time) | Incumbent RUs, New RUs |
| | Total administrative costs for the EU and Member States and for the railway sector (RU, IM, SPO) | **Quantitative** (micro-assessment) | € over time frame | EU , MS ,<br>Regulatory Authorities , RUs , IMs , SPs |
| Quality of rail transport | Safety: number of fatalities (road and rail transport) | **Quantitative** (from variations in modal share) | average n. / year over time frame | Society (represented by EU and MS) |
| | Punctuality and reliability of international freight trains | **Qualitative** (score for measure effectiveness) | - | Customers |

| Impact | | Assessment type | Unit | Main affected stakeholders |
|---|---|---|---|---|
| **Social Impacts** | | | | |
| **Impact on** | **Variations of:** | | | |
| Employment | Employment rates within the rail industry: train driving staff at RU, training accompanying staff, train monitoring and other IM staff, shunting/marshalling staff, terminal operator staff | **Quantitative** (from variations in modal share) | n./ year (function of time) | Society (represented by EU and MS) |
| | Education and mobility of workers | **Qualitative** (score for measure effectiveness) | - | Society (represented by EU and MS) |
| | Work safety and working conditions | **Qualitative** (score for measure effectiveness) | - | Society (represented by EU and MS) |
| **Environmental Impacts** | | | | |
| **Impact on** | **Variations of:** | | | |
| Air quality | External air pollution costs | **Quantitative** (from variations in modal share) | € / year over time frame | Society (represented by EU and MS) |
| Noise emission | External noise costs | **Quantitative** (from variations in modal share) | € / year over time frame | Society (represented by EU and MS) |
| Climate | External climate change costs | **Quantitative** (from variations in modal share) | € / year over time frame | Society (represented by EU and MS) |
| Use of Energy | Total cost for energy consumption | **Quantitative** (from variations in modal share) | € / year over time frame | Society (represented by EU and MS) |

**ANNEX XVI: RMMS QUESTIONNAIRE**

*Please fill in the questionnaire electronically. Feel free to change the size of the tables according to your needs. You may provide additional comments under each answer. If there have been no developments or modifications undertaken in a certain field, please indicate it clearly. In case of non-availability of the requested data, use the abbreviation "n/a".*

*Thank you!*

## 1. Evolution of rail transport performance and compensation of PSO[57]:

| | 2007 | %-variation compared to previous year | 2008 | %-variation compared to previous year |
|---|---|---|---|---|
| Freight (in tkm[58]) total | | | | |
| international | | | | |
| transit | | | | |
| national | | | | |
| Passengers (in pkm[59]) total[60] | | | | |
| international | | | | |
| transit[61] | | | | |
| national | | | | |
| of which under PSO: | | | | |
| Paid compensation for PSO (in euro): | | | | |

## 2. Shares of railway undertakings62 in total transport performance at the end of 2008 (please list railway undertakings with market shares in tkm/pkm ≥ 1%):

| Railway undertakings (FREIGHT) | Share (% of | Total market share of non- |
|---|---|---|

57 Public Service Obligations as defined in Regulation 1370/2007 of 23 October 2007

58 tkm = tonne km

59 pkm = passenger km

60 Please do not include passenger transit in total figure to ensure comparability with Eurostat data.

61 Provide passenger transit figures as far as available. Do not include in total figure as Eurostat survey does not include them.

62 Please apply territoriality principle, i.e. an undertaking operating in more than one country would see its share split across respective national rail markets.

| | tkm) | incumbents[63] |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

| Railway undertakings (PASSENGERS) | Share (% of pkm) | Total market share of non-incumbents |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

**3. Regulatory Bodies:**

| | In 2007 | In 2008 |
|---|---|---|
| No. of staff dealing with regulatory issues related to rail market access: | | |
| No. of complaints dealt with: | | |
| No. of ex officio investigations dealt with: | | |
| No. of decisions taken - on complaints: | | |
| - on ex officio investigations: | | |

**4. Please list national legislation and regulatory acts relevant to railway transport which has been issued between July 2008 and December 2008.**

[63] Incumbent = biggest historical railway undertaking

**5. Please list relevant developments as regards restructuring of the incumbent railway undertaking and adoption/implementation of national transport strategies that have taken place between July 2008 and December 2008.**

**6. Please list important training initiatives/modifications64 in the field of railway transport taken in your country between July 2008 and December 2008.**

**7. Employment of railway undertakings and infrastructure managers at the end of 2008:**

| | |
|---|---|
| Total staff of railway undertakings | |
| - of which train drivers | |
| Total staff of infrastructure managers | |
| Other staff including in rail related service companies (e.g. maintenance workshops, terminal operators, training, train driver leasing, energy supply) | |

**8. Multi-annual infrastructure management contracts (MAC)65 in 2008:**

| Infrastructure manager | Length of the network covered by the contract | Time span of the contract starting from [date] | Definition of performance indicators agreed (Y/N)?<br><br>If yes, please specify. | Total compensation paid<br><br>(in Euro/year) | Existence of independent monitoring body supervising MAC (Y/N)? |
|---|---|---|---|---|---|
| | | | | | |

64 E.g. measures related to the organisation of driver training, opening of training centres, support schemes for management training in the rail sector, setting up of an advanced apprenticeship scheme in the rail sector, international exchange programmes for staff or developments on the market for training services.

65 Contract concluded with the State or other competent authorities providing for financial compensation to infrastructure managers for maintenance and renewal to achieve an agreed performance, according to Directive 2001/14/EC, Article 6.

## 9. Infrastructure[66] expenditure (conventional network and high-speed network[67]):

| | Maintenance | Renewals | Enhancements |
|---|---|---|---|
| Conventional lines 2008: (in Euro) | | | |
| (in km worked on) | | | |
| Forecast for 2009 (in Euro) | | | |
| (in km worked on) | | | |
| High-speed lines 2008 (in Euro) | | | |
| (in km worked on) | | | |
| Forecast for 2009 (in Euro) | | | |
| (in km worked on) | | | |

## 10. Estimated infrastructure maintenance backlog [68] at the end of 2008

| | |
|---|---|
| Conventional lines 2008 (in Euro) | |
| (in km to be worked on) | |
| High-speed lines 2008 (in Euro) | |
| (in km to be worked on) | |

66 As defined in Directive 91/440/EEC

67 High-speed infrastructure as defined in Directive 2008/57/EC, Annex I

68 Infrastructure maintenance backlog = Maintenance expenditure in Euro required to ensure that rail transport operations on the infrastructure sustained in the long-term can be carried out under safe conditions and at the speed the infrastructure was designed for, on the basis of the network to be kept in a medium term.

## 11. Investments in the high-speed rail network:

| Lines | Km of lines being put into service in 2008 | Km being put into service at a conventional planning horizon (2020/2030) |
|---|---|---|
| | | |
| | | |

## 12. Length of railway network at the end of 2008

| | |
|---|---|
| Conventional lines (in km) | |
| High-speed lines (in km) | |

## 13. Track access charges in 2008

| Train category[69] | Average charge in €/train km, excluding cost of the use of electricity |
|---|---|
| 1000 gross tonne freight train | |
| 500 gross tonne intercity passenger train | |
| 140 gross tonne suburban passenger train | |

## 14. Please indicate whether in your country exists a performance regime set up according to Article 11 of Directive 2001/14/EC and if yes, describe its main features.

[69] The International Transport Forum in Leipzig (D) (http://www.internationaltransportforum.org/) has published a survey on track access charges in the indicated categories.

**15. Number of active railway licences issued by competent, national authority[70]**

| | Active licences on 31.12.2007 | Licences withdrawn | New licences issued | Active licences on 31.12.2008 |
|---|---|---|---|---|
| **Total** | | | | |
| thereof: - for freight transport | | | | |
| - for passenger transport | | | | |

**16. Please describe briefly the status of the ERTMS deployment.**

**17. Are there any other developments you would like to report on?**

[70] Licences issued according to Directive 95/18/EC