

Impact assessment support study on
the revision of the institutional
framework of the EU railway
system, with a special
consideration to the role of the
European Railway Agency

Final Report

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Executive Summary

Introduction

1.1 The purpose of this study has been to:

- verify and validate problems identified by the Commission with the effectiveness of the institutional framework in which the European Rail Agency operates and facilitating the creation of a single European railway;
- consider the policy initiatives proposed by the Commission to address these problems and to validate the general and specific objectives of the foreseen initiative;
- validate the operational objectives developed so far by the Commission and propose additional ones where justified;
- propose arrangements for monitoring the future achievement of the operational objectives, including the choice of monitoring tools and timeframe;
- substantiate the policy options and specific policy measures identified by the Commission for the purpose of this policy initiative;
- assess the viability of different combinations of the policy options;
- assess the economic, social and environmental impacts of the policy options, taking into consideration their legal feasibility and effectiveness; and
- undertake an economic analysis of the microeconomic, sectoral and macroeconomic impacts of the implementation of the options and sub-options considered, including an assessment of administrative costs.

1.2 In order to conduct this study, supporting evidence and information has been gathered through a literature research, and an extensive consultation of stakeholders, which included an on-line questionnaire and was followed up by more detailed interviews with a selection of the stakeholders.

Stakeholder consultation

1.3 An on-line survey was sent to 119 individual stakeholder institutions. The response rate at 57% was comparable with that observed in previous studies of this nature. In addition to the on-line survey, we undertook follow-up interviews with a selection of stakeholders to investigate emerging issues in more detail and to substantiate evidence collected through the literature research. Details of the stakeholder consultation are set out in Appendix B of this report.

Assessment of the functioning of the market

1.4 Although there has been positive progress through liberalisation and growth in some Member States, the performance of the rail sector is still lagging behind other transport modes. As a result, rail's share of the overall passenger market (in terms of passenger km) amounted to only 6% in 2009, while the private car accounted for some 73%. In the freight sector, rail accounts for a little over 10% of tonne-kilometres transported. These trends support the view that both rail passenger and freight services have failed to respond

effectively to competition in road transport, whilst acknowledging that the road sector is not recovering the full marginal social cost of its operations.

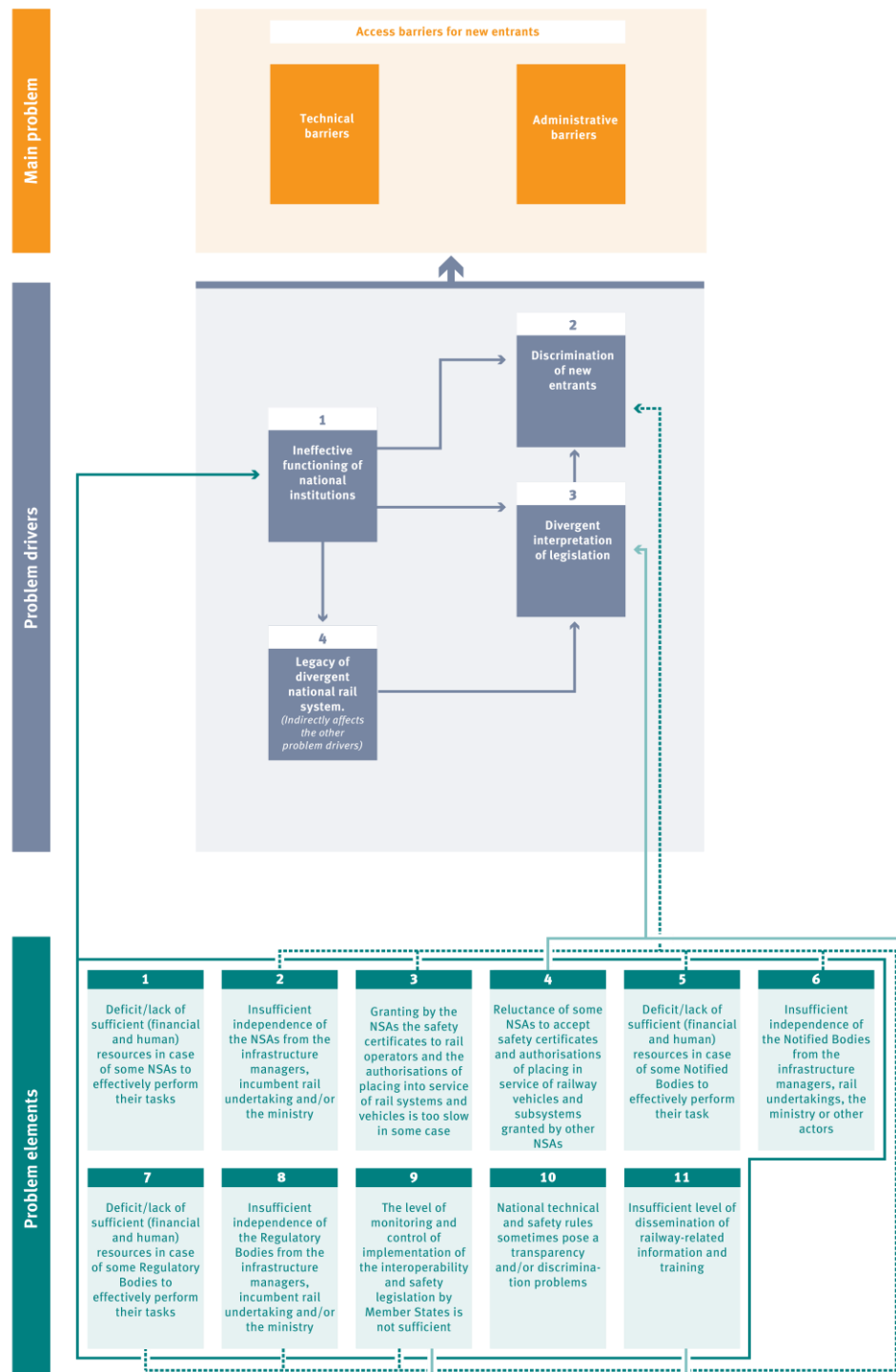
- 1.5 Rail freight markets within the EU have now been open for a number of years, and the industry's lack of competitiveness cannot be fully explained by the existence of legal barriers of the kind that continue to restrict competition in domestic passenger services. The problem also needs to be defined and addressed in terms of technical, physical capacity and institutional barriers. As suggested by the Commission, the establishment of a Single European Transport Area in the rail sector requires a two-fold strategy aimed at:
1. establishing an attractive and dynamic open rail market including (a) completing the process of market opening (access rights for domestic passenger transport services and award of public service contracts) and (b) ensuring non-discriminatory access to the infrastructure (separation between infrastructure managers and operators); and
 2. removing administrative and technical barriers, in particular by establishing a common approach to safety in order to avoid disguised discriminations.
- 1.6 The focus of this support study has been to address the second pillar of the strategy, by investigating the current administrative and technical barriers that hinders the development of the rail market and discussing the future role of the European Railway Agency and other national institutions.
- 1.7 The analysis undertaken confirmed the existence of the main problem affecting the sector as identified by the Commission, that is:
- *The persistence of technical and administrative barriers that are creating long and costly procedures for the sector, and ultimately affecting the competitiveness of rail.*
- 1.8 Further details of the assessment of the functioning of the market are set out in Chapter 2 of this report.

Problem definition

- 1.9 On the basis of the analysis of the functioning of the rail market and of the issues detected, we have identified the following four principle causes (problem drivers) that lead to the presence of the current administrative and technical access barriers:
- Inefficient functioning of the national institutions set up by EU legislation (Problem driver 1);
 - Discrimination against new entrants (both national and foreign) by national institutions (Problem driver 2);
 - Divergent interpretations of EU railway legislation by national authorities (Problem driver 3); and
 - Legacy of national rail systems that has meant that the various networks have grown and evolved heterogeneously over the past century (Problem driver 4).
- 1.10 Based on these four main problem drivers we then identified the key problem elements attributed to each of the following institutions: NSAs, Regulatory Bodies, Notified Bodies

and Other elements. The problem, the key drivers and the elements to those drivers is graphically illustrated in the ‘Problem Tree’ as shown in the figure below.

FIGURE 0.1 PROBLEM TREE

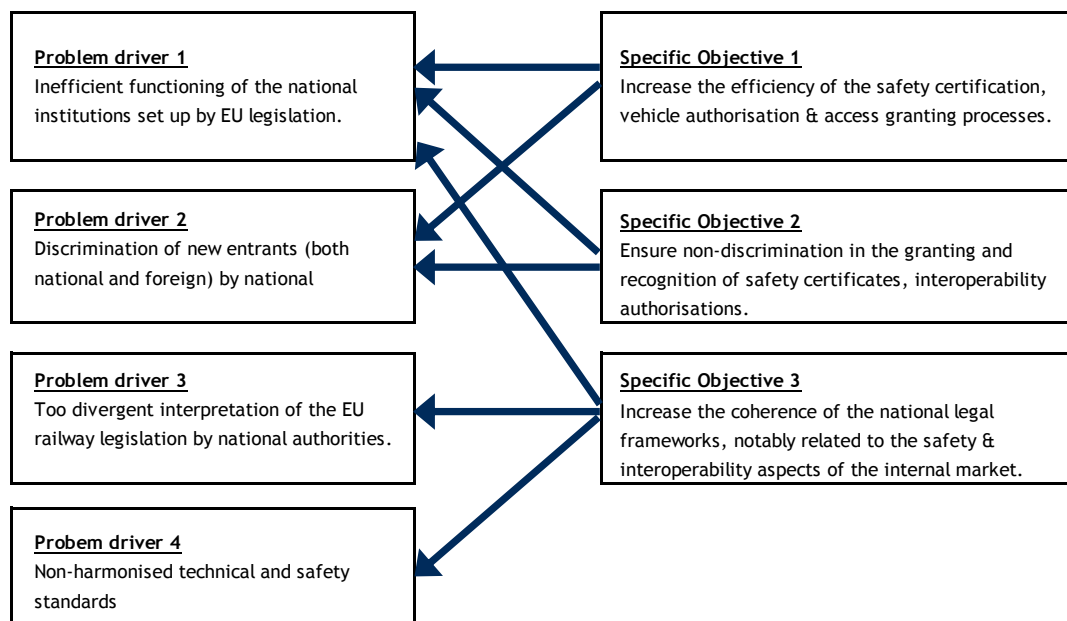


- 1.11 Chapter 3 provides greater detail of our findings in defining the problem and draws on evidence from literature research, the stakeholder consultation (both on-line survey, and follow-up interviews) and our knowledge and understanding of the sector. Evidence has been documented in the form of a number of country case studies that are incorporated in Appendix A to this report.

The objectives

- 1.12 Based on the developed understanding and definition of the problem and its constituent drivers and elements, we then proceeded to determine the general, specific and operational objectives relevant to this policy initiative.
- 1.13 The Commission has defined the general objective of this policy initiative as:
- *“To contribute to the completion of the internal market for transport through improvements to the operation of the integrated EU railway system and its institutional framework.”*
- 1.14 This general objective reflects closely the main problem and we believe it to be appropriate for the study.
- 1.15 Based on this general objective and consideration of the main problem drivers, we identified the following specific objectives:
- Increase the efficiency of the safety certification, vehicle authorisation and access granting processes (Specific Objective 1);
 - Ensure non-discrimination in the granting and recognition of safety certificates, interoperability authorisations (Specific Objective 2); and
 - Increase the coherence of the national legal frameworks, notably related to the safety and interoperability aspects of the internal market for railways (Specific Objective 3).
- 1.16 The figure below illustrates the linkage between these Specific Objectives and the Problem Drivers.

FIGURE 0.2 SPECIFIC OBJECTIVES/PROBLEM DRIVERS MAP



1.17 Finally, as part of the further refinement process, we determined the following operational objectives:

- To achieve, by 2025, the removal of all unnecessary national rules.
- To achieve in 2025 a 20% reduction in the time to market for new railway undertakings above the baseline situation in 2025.
- To achieve in 2025, a 20% reduction in the cost and duration of the certification of rolling stock.

1.18 Our validation of the general and specific objectives and our determination and validation of the relevant operational objectives, including our proposals for the arrangements for monitoring of their achievement, are set out in Chapter 4 of this report.

The policy options

1.19 Having identified the problem and the objectives to pursue, the study proceeded to define what policy options needed to be assessed in the impact assessment. Based on our understanding of the industry and the evidence gathered through our literature research and stakeholder consultation, we were able to assess a number of individual measures. These measures were then combined in such a way as to form logical policy options that could then be subject to an impact assessment analysis.

1.20 Six main policy options were identified for the impact assessment, summarised as follows:

- Option 1: Baseline scenario (Do nothing - continuing on the path that is currently set out for the sector as per the description set out at the end of Chapter 3)
- Option 2: Greater coordination role for the Agency (in ensuring a consistent approach to certification and authorisation)

- Option 3: ERA as a one-stop-shop (where the final decision on certification and authorisation remains with the NSAs)
- Option 4: ERA & NSAs share competencies (where the final decision on certification and authorisation is taken by the Agency)
- Option 5: ERA takes over activities of NSAs regarding authorisation & certification (relating NSA authorisation and safety certification, but not ongoing auditing and national monitoring activities)
- Option 6: Horizontal measures (other legislative changes and Agency tasks that could be implemented to improve the competitiveness of the rail sector)

1.21 The table below shows these six policy options and how they relate to grouping of the individual measures.

1.22 Details of the process of the selection of the individual measures are included in Appendix C to this report. The process for the development of the individual options and the final composition of the options that have been taken forward for the impact assessment are described in Chapter 5 of this report.

TABLE 0.1 SUMMARY OF POLICY OPTIONS

Option 1	Option 2: Further ERA “Coordination” over NSAs	Option 3: ERA as One-Stop-Shop, with NSAs retaining their powers	Option 4: ERA & NSAs share competencies	Option 5: ERA takes over activities of NSAs regarding authorisation & certification
1.0.0 Baseline	2.1.2: Enhanced “coordination” and supervision role of ERA with respect to NSAs regarding granting of vehicle authorisations & safety certificates including ensuring their mutual recognition by national authorities.	2.2.B: ERA shares the competences with the NSAs regarding granting of safety certificates to the railway undertakings and vehicle authorisations (“one stop shop” concept): the decision is taken by NSA, ERA performs “entry and exit” checks of the application.	2.2.Z: ERA shares the competences with the NSAs regarding granting of safety certificates & vehicle authorisations: a “one stop shop” concept with the NSAs (acting as regional offices of ERA) contributing but the final decision rests with ERA.	2.2.C: ERA takes over the competences of the NSAs regarding granting of certificates to the railway undertakings and vehicle authorisations.
		2.3: ERA as an appeal body for some decisions of NSAs		
		2.1.1a + 4.9a: Migration to a single (common) safety certificate and single vehicle authorisation (setting up European “passport” for vehicles): <u>national authorities issue</u> single safety certificates & single vehicle authorisations (mutually recognised by definition)	2.1.1b + 4.9b: Migration to a single (common) safety certificate and single vehicle authorisation (setting up European “passport” for vehicles): <u>ERA issues</u> single safety certificates and single vehicle authorisations (Appeals to ERA decisions are sent to a separate appeal body)	
	2.1.6: Control by ERA over the functioning of NSAs (e.g. developing guidelines & auditing adherence to them).			
	2.1.B: Enhanced “coordination” and supervision role of ERA with respect to Notified Bodies regarding: type approval; rail vehicles certification; ERTMS certification and accreditation of NoBos.			
Option 6: horizontal measures (independent of the level of interaction ERA/national authorities)	3.1: Strengthened action by the Commission outside infringement procedure, notably on non-discrimination in the railway market			
	3.3: Amendment of the directives to enable the adoption of implementing measures setting out common principles & practices for national authorities			
	4.1.1: Enhanced role of ERA in monitoring and control of implementation of national safety and interoperability legislation			
	4.1.2: Migrating from national technical & safety rules to a system of EU rules through clear requirement of national rules need to be removed by national authorities with national authorities tasked with the role of removing them and limiting their possibility of adopting new rules.			
	4.2: Enhanced role of ERA in dissemination of railway-related information and training.			
	4.3: Enhanced role of ERA in providing advice & support for Member States & other stakeholders in implementing legislation on safety & interoperability			
	4.6: Communication from the Commission regarding guidelines on the interpretation of specific EU laws & decisions (including TSIs)			
4.7: Enhanced role of ERA in identifying potential spare parts to be standardised and coordination of industry activities in this area				

Impact assessment

1.23 In carrying out the impact assessment we have taken the six options set out above and analysed them using a standard process as defined in the Impact Assessment Guidelines. The assessment involved the:

- Identification of impacts of options;
- Quantitative assessment of direct impacts;
- Qualitative assessment of indirect impacts;
- Assessment of impacts on SMEs;
- Assessment of impacts on sectoral competitiveness; and
- Assessment of administrative impacts.

1.24 The benefits and costs determined from the impact assessment of the options are summarised below.

Benefits

BENEFITS ARISE PRINCIPALLY FROM SAVINGS IN AUTHORISATION AND CERTIFICATION TIMESCALES AND COSTS. COMBINING THE AUTHORISATION, CERTIFICATION AND OPPORTUNITY COST SAVINGS DEMONSTRATES SUBSTANTIAL BENEFITS OVER THE EVALUATION PERIOD WITH BENEFITS OF OVER €0.5BN FOR OPTIONS 3-5 EVEN IN DISCOUNTED TERMS. NOTE THAT FOR THESE CALCULATIONS WE HAVE USED THE CENTRAL CASE NUMBERS FOR THE OPPORTUNITY COST SAVINGS FOR REDUCED VOLUMES OF DELAYED ROLLING STOCK. THE QUANTIFIED BENEFITS CALCULATED IN THE IMPACT ASSESSMENT ANALYSIS ARE SUMMARISED IN TABLE 0.2 BELOW:

TABLE 0.2 DISCOUNTED TOTAL QUANTIFIED BENEFITS 2015-2025 (€M NPV)

Option	Impact assessment calculator			Admin costs calculator	ERA/NSA authorisation fee revenue loss*	Total net benefit	Additional funds necessary from EU budget to cover ERA costs (€ mil.)
	Authorisation	Safety certification	Opportunity costs	Cost savings (increase)			
Option 2: Further ERA "Coordination"	201	2	237	9	(28)	420	28
Option 3: ERA as One-Stop-Shop	217	2	255	25	(28)	471	29
Option 4: ERA & NSAs share competencies	235	2	265	33	(28)	508	a: 0
							b: 0
							c: 18
Option 5: ERA takes over activities of NSAs regarding authorisation & certification	276	3	295	(69)	(28)	477	155
Option 6: Horizontal measures	156	1	174	11	N/A	331	N/A

Note: Options 2 to 5 represent the results for the combined options with Option 6 incorporated within each of these options. We have also included (shaded in grey) the impact of Option 6 on its own. The individual values for Options 2 to 5 cannot be obtained simply by subtracting the value for Option 6 due to the overlap of a number of single measures that make up the various Options.

Costs

- 1.25 The impact on administration costs of ERA and the NSAs has been estimated and these are summarised in the table below.

TABLE 0.3 CHANGE IN AGENCY AND NSA COSTS (€M NPV 2015-2025)

Option	Total estimated <u>cost variation</u> for ERA (€M.)	Total estimated <u>cost variation</u> for NSAs (€M.)	Total change in administrative costs (€M.)
	A	B	C=A+B
Option 2	28	-37	-9
Option 3	29	-55	-25
Option 4	35	-68	-33
Option 5	221	-152	69

Note: Negative values indicate cost increases

- 1.26 This table shows for each of the Options the total estimated cost variation for the Agency (column A) and for the NSAs (column B). For presentational reasons, costs related to other entities such as the Commission or the independent ombudsman have been included in the costs for the Agency. The details of this are discussed in more detail in Chapter 6.
- 1.27 Four of the measures included in Option 6 entail specific additional tasks for ERA, which may require additional staff involved and other extra costs. However, when merged with other options, the impact on ERA in terms of administrative costs is likely to be rather small. We have nevertheless allowed for an increase in staff numbers.
- 1.28 The main impact on national institutions in terms of administrative costs is related to the necessity of respecting tighter parameters in the implementation of the EU legislation, due to control and supervision from ERA and other EU institutions. On the other hand, NSAs would benefit from the guidance and monitoring by ERA, of a clearer legislative framework (e.g. by migrating from national technical and safety rules to a system of EU rules) and from guidance from the Commission.
- 1.29 The table below shows the results of the impact assessment in relation to the individual Options and the operational objectives.

TABLE 0.4 OPTIONS RESULT COMPARISON WITH OPERATIONAL OBJECTIVES (% DECREASE BY 2025)

Option	Total authorisation costs (reduction on baseline)	Total authorisation timescales (reduction on baseline)	Average time to market (reduction on baseline)
Target	20%	20%	20%
Option 1	0%	0%	0%
Option 2	19%	17%	19%
Option 3	20%	18%	22%
Option 4	24%	22%	25%
Option 5	24%	22%	30%

- 1.30 It should be noted that each of the percentages set out above relate to a reduction on the baseline, that is compared to Option 1. We have seen however that the baseline itself produced a number of benefits with total authorisation costs decreasing by about 24%, authorisation timescales decreasing by about 18% and average time to market falling by 6%.
- 1.31 It can be seen from the table that the operational objectives relating to a reduction of 20% in total authorisation costs and timescales are achieved in 2025 only by implementing Options 4 and 5. The objective relating to a reduction of average time to market greater than the baseline is achieved by implementing Options 3, 4 and 5.
- 1.32 The operational objective relating to national rules is achieved by implementing the measures included in Option 6, and given that Option 6 had been merged within each Option from 2 to 5, this operational objective would be achieved in all incremental options.
- 1.33 The detailed analysis that underpins these results is set out in Chapter 6 and in Appendix D (which also contains the detailed modelling assumptions and methodology) to this report.

Conclusions and recommendations

Conclusions

- 1.34 The estimated quantified impacts of the policy options assessed in this study are summarised in the table below:

TABLE 0.5 FINAL RESULTS - OVERALL NET BENEFIT (€ MIL. NPV 2015-2025)

Option	Total benefit	Total admin cost effect	Authorisation fee adjustment (see paragraph 6.156)	Overall Net Benefit
Option 2	439	9	-28	420
Option 3	474	25	-28	471
Option 4	503	33	-28	508
Option 5	574	-69	-28	477

Note 1: Negative values indicate a benefit decrease.

Note 2: Option 6 is already incorporated into these options.

1.35 In conclusion, Option 4 provides the best balance of outcomes in relation to:

- the industry, in terms of reduced costs and timescales for safety certification and vehicle and other sub-system authorisation,
- cost implications for the EU budget in terms of incremental costs of the Agency;
- the cost impacts on national institutions;
- the potential impact on subsidiarity;
- addressing the problems identified (as set out in Chapter 3); and
- meeting the objectives (as set out in Chapter 4).

Recommendations

- 1.36 The selection of Option 4 will lead to a number of modifications to the current legislative and regulatory framework. Option 4 modifies the role of the Agency substantially, particularly in relation to its relationship with the NSAs. This change gives the Agency a more important role in the industry in terms of monitoring and facilitating access to the rail sector. The Agency will need to have decision making powers for it to be able to approve safety certificates and authorisation requests. It will also need to have an appropriate skills base to be able to effectively manage the relationship with the NSAs.
- 1.37 We propose that the Agency should continue on its path to implementing the recommendations that came out of our Evaluation of Regulation 881/2004 published in 2011. This is fundamental as setting up appropriate governance for the Agency is a first step in ensuring that the additional tasks set out in Option 4 can be carried out effectively. It is encouraging to note that many of these recommendations have already been implemented.
- 1.38 The roles identified in Option 4 for the Agency and the Commission imply some significant changes to the powers assigned to the Agency. This option would require the Agency to be more than just a partner for the industry, as it will require a more hands on approach to the sector. This would mean that, for example, the Agency could not adjudicate on appeals where it would have the final say on certifications and authorisations. From our understanding it seems clear that the appeals in this case should be an independent ombudsman.

- 1.39 Many of the activities that are included in Option 4 would require that the Agency acquire both additional staff and new skills. It is fundamental that the Agency develop a clear and structured approach to meeting these staff requirements, as well as meeting its on-going obligations. The risk is that these additional tasks will distract the Agency from its day-to-day activities. We recommend that an appropriate action plan is developed to address the expansion and that this is shared and agreed with the Administrative Board and with the Commission. We also recommend that the Representative Bodies are consulted in this process.
- 1.40 Finally, we recommend that the Agency works closely with the Commission to ensure that the details of Option 4 are developed in order to facilitate an expeditious and effective transition into its new role.
- 1.41 Our recommendations for Option 4 and the manner in which the specific measures associated with this option should be implemented are detailed in Chapter 7 of this report.

1 Introduction

Background

- 1.1 This is the Final Report of the “Impact assessment support study on the revision of the institutional framework of the EU railway system, with a special consideration to the role of the European Railway Agency. The terms of reference for the project are set out in Appendix E.
- 1.2 This report is prepared by the Steer Davies Gleave and does not prejudice any decision to be taken by the Commission services in relation to the policy initiative.

Structure of this document

- 1.3 This document is structured as follows:
- The remainder of Chapter 1 provides a high level summary of the stakeholder consultation (further details are included in Appendix B);
 - Chapter 2 sets out a review of the current institutional framework and market situation;
 - Chapter 3 sets the problem definition and a summary of the evidence that has been gathered through the stakeholder consultation and the desktop research (included in the case studies as detailed in Appendix A) that has been carried out.
 - Chapter 4 sets out the validation of the objectives based on evidence derived from the results of the stakeholder survey, our desktop analysis and the results of the problem definition described in Chapter 3;
 - Chapter 5 sets out the analysis carried out on the selection of the measures and the definition of the options;
 - Chapter 6 sets out the impact assessment analysis; and
 - Chapter 7 sets out the conclusions and recommendations.
- 1.4 In addition, this report contains the following appendices:
- Appendix A, National Case Studies;
 - Appendix B, Summary of the stakeholder on-line survey consultation;
 - Appendix C, Selection of measures for Chapter 5;
 - Appendix D, Methodology for the Modelling Calculations used in Chapter 6;
 - Appendix E, Terms of Reference; and
 - Appendix F, Glossary.

Summary of stakeholder consultation

Introduction

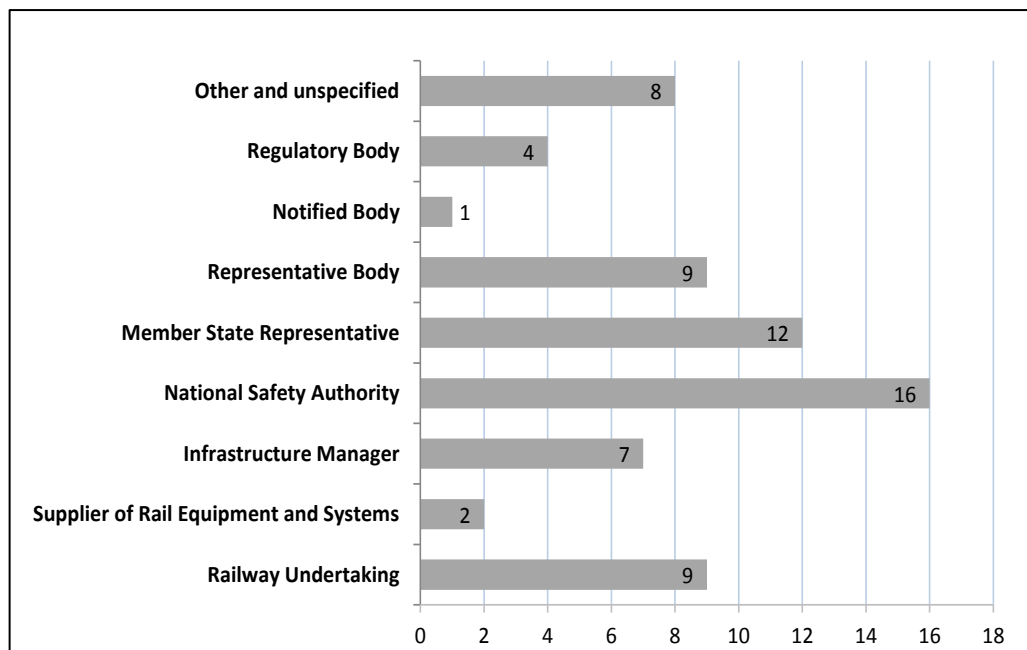
- 1.5 This section sets out an overview of the stakeholder consultation and a list of the follow-up interviews undertaken with stakeholders. The detailed results of the stakeholder consultation are included in Appendix B and, where necessary, the evidence relating to

the issues of the problem definition, the objectives or the policy options/measures has been included in the corresponding chapters that follow.

The high level results of the on-line stakeholder survey

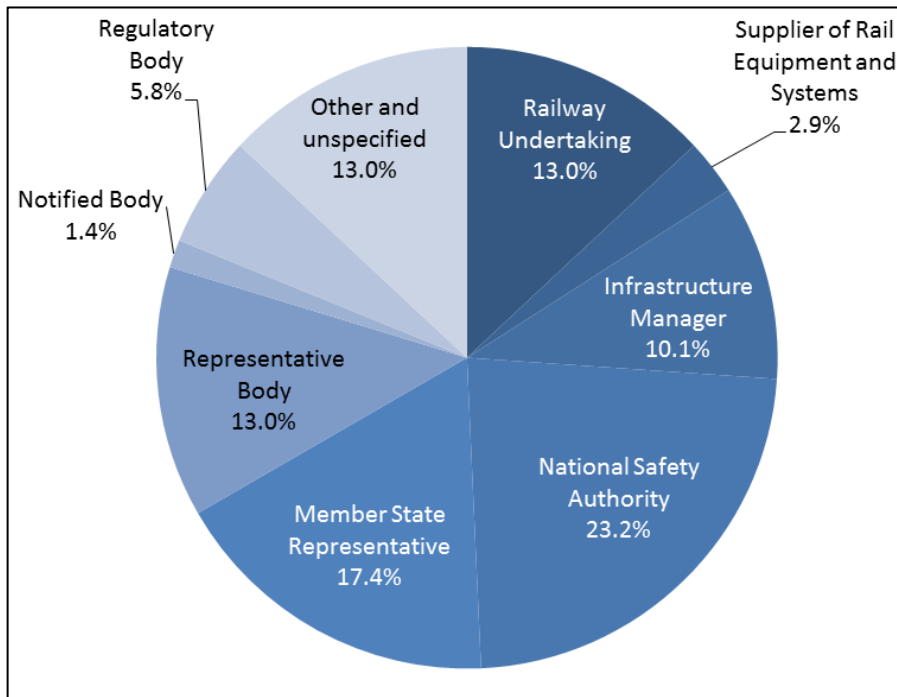
- 1.6 The on-line survey was sent out on 18th November 2011 and stakeholders were asked to provide their responses by 15th December 2011. This timescale was subsequently extended to 30th December 2011. In the week following this deadline we received a number of other responses which we have included in the analysis.
- 1.7 We sent the on-line survey to a total of 358 stakeholders of the European rail sector, although some of these were to multiple email addresses within the same institution and as such the number of unique survey requests sent to individual institutions was actually 119. We received a total of 68 responses to the survey which represents a 57% response rate and is comparable with previous studies of this nature. In addition to this we received a further 10 written responses from stakeholders who preferred to respond in writing to the survey rather than complete the survey on-line. These additional responses have not been included in the quantitative calculations below, but the comments have been considered as part of the evidence base for the analysis.
- 1.8 The figure below shows a breakdown of the number of respondents by category.

FIGURE 1.1 BREAKDOWN OF RESPONDENTS



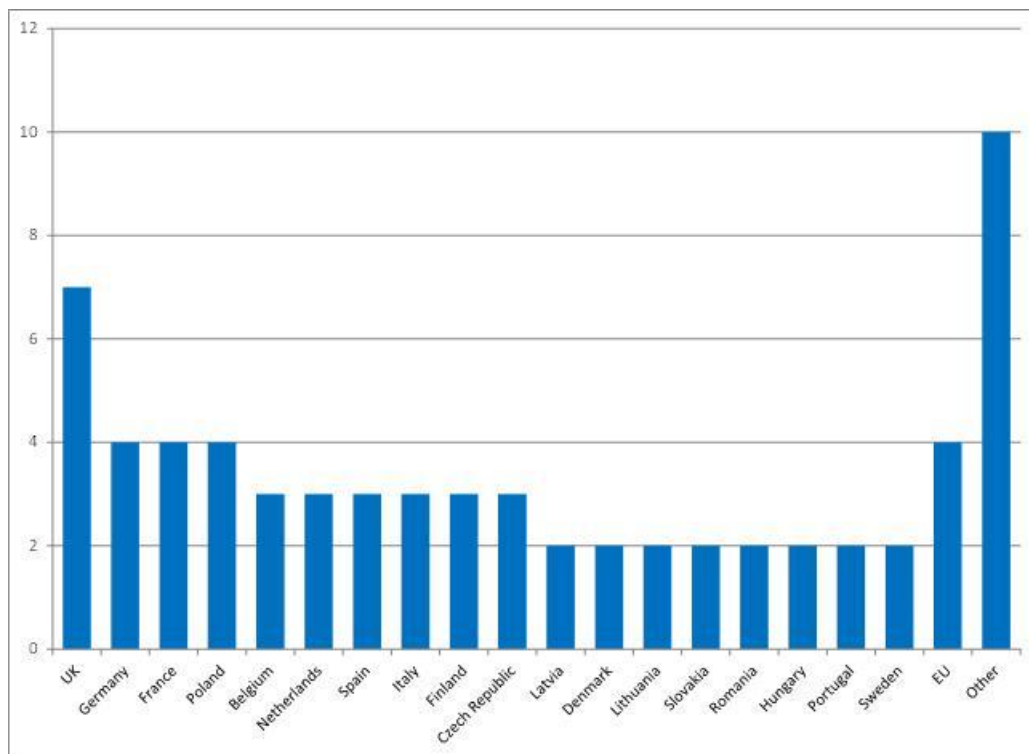
- 1.9 The largest stakeholder group represented was the NSAs closely followed Member State representatives and Railway Undertakings. The breakdown is also presented in the figure below.

FIGURE 1.2 SURVEY RESPONDENTS BY STAKEHOLDER CATEGORY



- 1.10 It is important to note that we received a number of very useful comments in the text boxes provided in the survey form under each question that have added substantial value to the responses to the survey and became the basis for a number of the follow-up interviews and an evidence base for the confirmation of the problem definition and the validation of objectives.
- 1.11 The figure below shows the breakdown of the number of responses by Member State.

FIGURE 1.3 SURVEY RESPONDENTS BY MEMBER STATE



1.12 We received at least one response from all Member States (including Malta and Cyprus).¹ The highest number of responses were received from the UK, followed by Germany, France, Poland and EU institutions. We have included an “Other” category for all other Member States where only one response was received.

The follow-up interviews

1.13 In addition to the on-line survey, we have undertaken follow-up interviews with a selection of stakeholders to probe more detail on the responses received through the survey. The table below summarises the stakeholders that we have interviewed. In some cases we held telephone interviews where we were unable to hold face-to-face interviews.

TABLE 1.1 SUMMARY OF STAKEHOLDER CONSULTATION

Stakeholder	Type of discussion
The Representative Bodies	
CER	Face-to-face meeting
EIM	Face-to-face meeting
UIP	Telephone interview
UNIFE	Face-to-face meeting
UITP	Face-to-face meeting

¹ Malta and Cyprus do not currently have a railway, although they are still subject to railway legislation as they could choose to build a railway in future, or may have companies manufacturing railway components within their territory. For the purpose of this study, however, when we refer to EU-12 Member States, the calculations and/or commentary have been prepared excluding Malta and Cyprus.

Stakeholder	Type of discussion
EPTTOLA	Face-to-face meeting
ETF	Face-to-face meeting
ERFA	Face-to-face meeting
ALE	Face-to-Face meeting
Railway undertakings	
FS	Face-to-face meeting
SNCF	Face-to-face meeting
DB	Face-to-face meeting
A Polish new entrant	Face-to-face meeting
A French new entrant	Face-to-face meeting
A Hungarian new entrant	Face-to-face meeting
National Safety authorities	
EBA (German NSA & NoBo)	Telephone interview
ANSF (Italian NSA)	Face-to-face meeting
UTK (Polish NSA)	Face-to-face meeting
NKH (Hungarian NSA)	Face-to-face meeting
EPSF (French NSA)	Face-to-face meeting
Others	
A rolling stock leasing company	Telephone interview
Association of German railway undertakings	Telephone interview
2 rolling stock manufacturers	Face-to-face meeting
EPF	Face-to-face meeting
ERA	Face-to-face meeting
Dutch Ministry of Transport	Face-to-face meeting
Italian Regulatory Body	Face-to-face meeting
German Regulatory Body	Telephone interview

- 1.14 We were unable to arrange an interview with UIRR. The list included above is much longer than the one we had planned for in the proposal, but as the subject matter was key to a number of stakeholders who expressed a desire to discuss the issues in more detail, we accommodated additional interviews where possible. Unfortunately it was not possible to speak to everyone who requested a further interview given the timescales of the project.
- 1.15 We found these interviews to be extremely useful and provided us with substantial information in relation to the study. In addition, the stakeholder presentation and hearing at the end of February also provided a very useful forum to share the results of the on-line survey and to receive further views from stakeholders.
- 1.16 Finally, we also attended the vehicle acceptance task force meetings that have been chaired by the Commission and taken place since the start of this study. The work of this task force has been very useful in pointing to specific problems in the vehicle acceptance process and in aiding our understanding of the experiences of the stakeholders present.

2 The functioning of the market

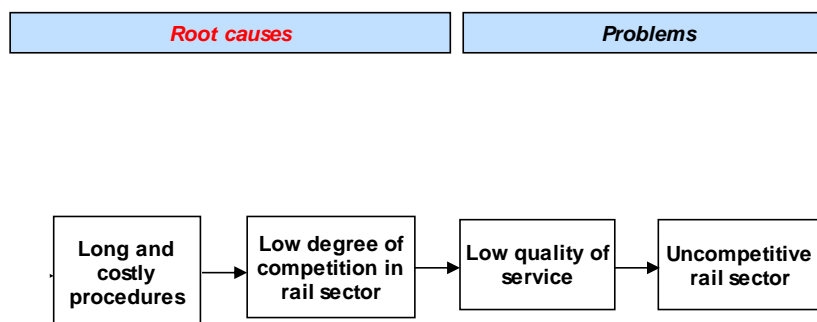
Introduction

2.1 In this chapter, we set out the functioning of the market to set the foundation for the problem definition which is then examined in the next chapter. The contents of this chapter focus on the trends in the rail sector in recent years and the manner in which the national institutions that act within the market operate. This will serve to highlight and verify the main problem identified for this impact assessment, which is:

- The persistence of technical and administrative barriers that are creating long and costly procedures for the sector, and ultimately affecting the competitiveness of rail.

2.2 The figure below shows the section of the problem tree for the 4th Package work which relates specifically to this impact assessment on ERA, interoperability and safety. As will be seen in the following chapter this has been slightly modified and extended to reflect the results of our analysis and findings from discussions with stakeholders. For example the insufficient independence of national institutions has been treated within the problem elements that contribute to the problem drivers.

FIGURE 2.1 THE PROBLEM TREE



2.3 While the problem mentioned above applies across the EU, an analysis of market developments in recent years nevertheless demonstrates different trends in rail transport between the Member States that are at different stages of economic development. Accordingly, in the discussion of market trends presented below, we have found it useful to comment on overall trends for the EU-27 while distinguishing between:

- The EU-15, which includes Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and UK; and
- The EU-12, which includes Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovenia and Slovakia²

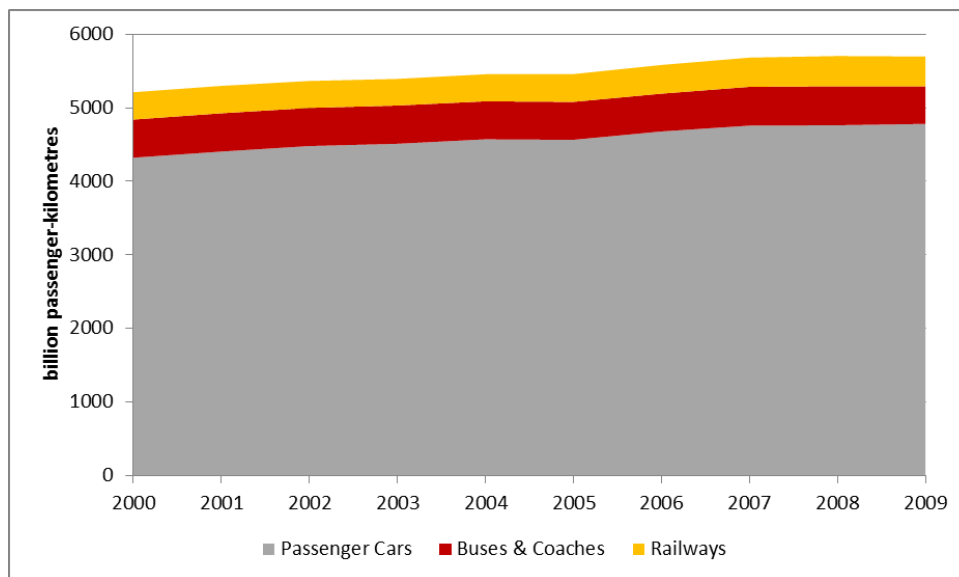
² Currently no railway infrastructure is present in Cyprus and Malta. These EU Member States have nevertheless been included in the EU-12 group as in case they built a new rail infrastructure, or if they supply railway equipment they would be subject to the EU railway legislative framework discussed in this report.

- 2.4 There are, however, significant differences between the experiences of individual Member States within these groups, reflecting their different economic policies and circumstances as well as differences in their rail-specific strategies, levels of investment and regulatory frameworks. In the course of the discussion, we highlight a number of trends within particular Member States where these give support to the problem definition.
- 2.5 This Chapter presents an overview of rail market development in the EU and illustrates the functioning of national institutions, discussing the root causes which lead to the poor competitiveness of the rail sector and that can ultimately be attributable to the presence of technical and administrative barriers. The following Chapter will investigate in detail these barriers, their drivers and the issues that need to be tackled to remove them.

Market developments

- 2.6 Over the past decade, the European rail market has witnessed a range of changes to its structure, with the aim of improving services to passengers through the creation of an internal market. The market for freight and for international passenger trains has now been opened. Moreover, some countries have opened their domestic services to competition, either through the introduction of open access operators, or through the competitive tendering of public sector contracts.
- 2.7 Despite this progress, the performance of the rail sector compared to other transport modes is not yet satisfactory. In the rail passenger sector, the quality of rail services does not always keep pace with the evolving needs of passengers in terms of reliability, comfort, speed, resilience to delays and the environment. In many circumstances the price/quality ratio of the services offered by railway undertakings is perceived by passengers as insufficient and they opt for alternative modes of transport, in particular road transport for short distance and commuting journeys, air transport for long distance services. As a result, the share of rail in the EU passenger transport market has remained low and relatively unchanged. This trend is illustrated in the figure below, where rail's share of the overall market (in terms of passenger km) amounted to only 6% in 2009, while the private car accounted for some 73%, the same shares registered back in 2000.

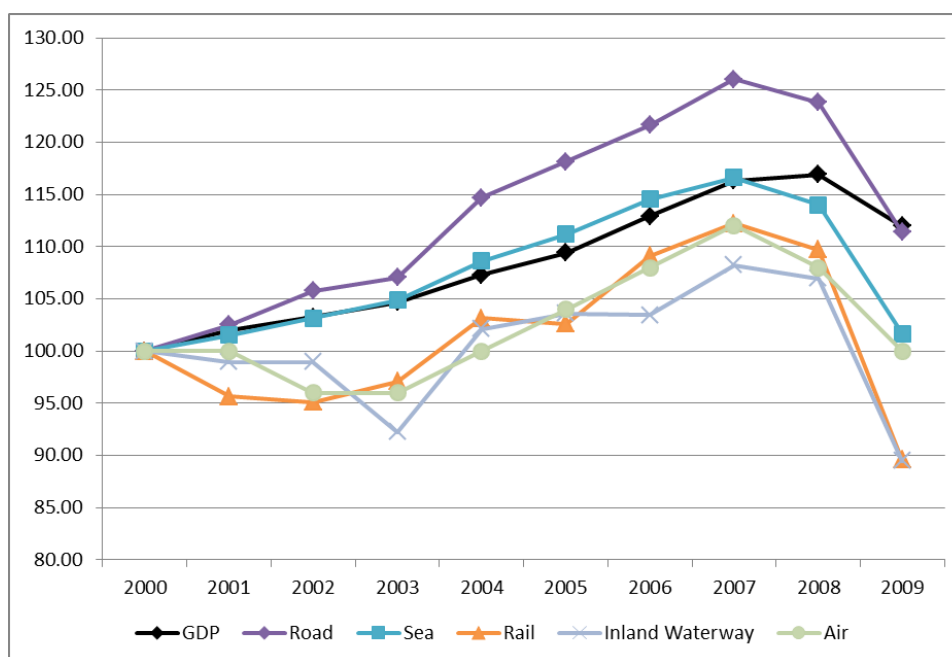
FIGURE 2.2 ROAD AND RAIL PASSENGER VOLUMES IN THE EU-27



Source: Eurostat, International Transport Forum, Union Internationale des Chemins de Fer, national statistics

- 2.8 These overall trends mask significant differences between Member States. Rail passenger traffic in the EU-15 increased by 16% between 2000 and 2009, with countries such as the UK, Sweden and Belgium experiencing growth in excess of 30%. This contrasts with a fall in traffic of 25% in the EU-12 as a whole and falls of more than 35% in Romania, Lithuania and Bulgaria. A wide range of external factors have contributed to these diverging trends, including economic growth, trends in oil and petrol prices, demographic trends, structural adjustments in many of the EU-12 countries (notably increased car ownership in response to rising living standards) and ongoing difficulties in securing public funding for rail services. Nevertheless, rail's inability to compete with road reflects widely perceived shortcomings in a number of aspects of the service provided on many routes, including journey times, service frequency and reliability and other aspects of service quality. Inadequate investment has also meant that many rail services have failed to keep pace with passenger expectations of service quality, for example in terms of the application of new ticketing and information technology and the quality of the environment at stations and on trains.
- 2.9 In the freight sector, rail accounts for a little over 10% of tonne-kilometres transported. The figure below shows that freight volumes transported by rail grew by little more than 10% between 2000 and 2007, declining thereafter along with other types of freight transport as a result of the global recession.

FIGURE 2.3 CHANGES IN FREIGHT TRANSPORT VOLUMES AND GDP IN THE EU-27



Source: Eurostat, International Transport Forum, Union Internationale des Chemins de Fer, National Statistics

- 2.10 Again, the relative performance of rail in EU freight markets has varied significantly between different Member States. Across the EU as a whole, road-based freight accounted for over 75% of freight volumes transported by land in 2009. However, while the corresponding mode share in the EU-15 remained broadly constant at 80%, over the ten years to 2009 the share in the EU-12 increased from 14% to 40%. Moreover, rail freight movements in the EU-12 fell by 15% over the same period, with Bulgaria, the Czech Republic, Estonia, Romania and Slovakia, all experiencing falls in freight volumes by rail well in excess of 20%.
- 2.11 These trends support the view that both rail passenger and freight services have failed to respond effectively to competition in road transport. Passenger rail services in some countries have benefited from economic trends encouraging greater rail use, yet, as a whole, the sector has failed to compete with the greater flexibility offered by car travel, notwithstanding greater congestion, increased motoring costs and other factors that might have been expected to improve rail's competitive position.
- 2.12 In the EU-15, rail freight has established a market niche, maintaining its share of overall freight movements over a sustained period but failing to capitalise on the opportunities presented by strong economic growth and increasing road congestion over the last decade. In the EU-12, the high share of rail freight at the beginning of the decade has been steadily eroded by the growth of road freight, which offers freight customers greater flexibility as well as competitive journey times and prices.
- 2.13 In principle, rail freight markets within the EU have been opened for a number of years, and the industry's lack of competitiveness cannot therefore be simply explained by the existence of legal barriers of the kind that continue to restrict competition in domestic passenger services. The problem to be addressed therefore also needs to be defined in

terms of technical, physical capacity and institutional barriers, as discussed below, which have frustrated action to open markets taken at the EU level. Such barriers will also need to be reduced if the benefits of liberalisation of passenger markets are to be addressed.

- 2.14 Therefore, as pointed out by the Commission, the establishment of a Single European Transport Area in the rail sector requires a twofold strategy:
- establishing an attractive and dynamic open rail market including (a) completing the process of market opening (access rights for domestic passenger transport services and award of public service contracts) and (b) ensuring non-discriminatory access to the infrastructure (separation between infrastructure managers and operators); and
 - removing administrative and technical barriers, in particular by establishing a common approach to safety in order to avoid disguised discriminations.
- 2.15 The first part of the strategy is being addressed in a separate study undertaken by Steer Davies Gleave on behalf of the European Commission regarding “the potential market opening of the domestic rail passenger services and measures to ensure non-discriminatory access to rail infrastructure and services across the European Union”. The impact assessment that is the subject of this document focuses on the second pillar of the strategy by investigating the current administrative and technical barriers that hinders the development of the rail market and discussing the future role of the European Railway Agency and other national institutions.

Main areas investigated in this Impact Assessment support study

- 2.16 The main role of the Agency has been to develop technical regulations to facilitate the development of a Single European Railway through the harmonization of rail interoperability and safety in the EU. The institutional framework is complemented by a network of specialised national institutions that are tasked with the role of implementing and enforcing the legislative framework:
- Notified Bodies that carry out the conformity assessment of rail vehicles and subsystems with TSIs;
 - National Safety Authorities (NSA) that are responsible mainly for granting safety certificates and authorisations (vehicle and equipment) for applicants;
 - National Investigation Bodies that are responsible for investigating serious accidents; and
 - Regulatory Bodies, responsible for ensuring fair and non-discriminatory access to the rail network and services.
- 2.17 The Agency is currently carrying out important activities in facilitating the reduction of the technical barriers through the publication of TSIs. There is no evidence of specific problems in safety levels across Europe with a continuing fall in the number of fatalities as set out in the bi-annual ERA safety report. However, there are remaining administrative and institutional issues regarding the pace and way some national authorities implement EU legislation and in particular the manner in which the laws are applied which are having a direct impact on the timescales for bringing rolling stock and RUs to market. This

decentralised approach is one of the main factors driving these administrative and institutional barriers.

2.18 These issues manifest themselves in administrative and technical barriers that can be seen primarily in relation to:

- Safety certification carried out by NSAs;
- Vehicle and equipment authorisation carried out by NSAs (an important part of which is carried out by NoBos); and
- The continued existence of national rules that are not well known and understood by the industry.

2.19 We discuss in more detail below the role of the various national institutions mentioned above and identify the manner in which the practices that some of them are pursuing are creating problems with safety certification and vehicle and equipment authorisation. We also discuss the role of national rules in this context.

National Safety Authorities

2.20 National Safety Authorities (NSA) are defined by Directive 2004/49/EC on safety on the Community's railways as :

“the national body entrusted with the tasks regarding railway safety in accordance with this Directive or any bi-national body entrusted by Member States with these tasks in order to ensure a unified safety regime for specialised cross-border infrastructures” (Article 3 of Directive 2004/49/EC).

2.21 NSAs need to be independent from railway undertakings, infrastructure managers, applicants for certificates and procurement entities (Article 16 Directive 2004/49/EC).

Role

2.22 The main tasks of NSAs are set out in Article 16 of Directive 2004/49/EC (as amended by Directive 2008/57/EC, Directive 2008/110/EC and Directive 2009/149/EC), also referred to as “the Safety Directive”. In summary, these tasks comprise:

- authorising the bringing into service of the structural subsystems constituting the trans-European high-speed rail system in accordance with Article 15 of Directive 2008/57/EC and checking that they are operated and maintained in accordance with the relevant essential requirements;
- authorising the bringing into service of the structural subsystems constituting the trans-European conventional rail system, in accordance with Article 15 of Directive 2008/57/EC and checking that they are operated and maintained in accordance with the relevant essential requirements;
- supervising that the interoperability constituents are in compliance with the essential requirements as required by Article 19 of Directives 2008/57/EC;
- authorising the placing in service of new and substantially altered rolling stock that is not yet covered by a TSI;
- the issue, renewal, amendments and revocation of relevant parts of safety certificates and of safety authorisations granted in accordance with Articles 10 and 11 and checking

that conditions and requirements laid down in them are met and that infrastructure managers and railway undertakings are operating under the requirements of Community or national law;

- monitoring, promoting, and, where appropriate, enforcing and developing the safety regulatory framework including the system of national safety rules;
- supervising that rolling stock is duly registered and that safety-related information in the national register, established in accordance with Article 15 of Directive 2008/57/EC, is accurate and kept up-to-date.

- 2.23 Article 17 of the Safety Directive (and subsequent amendments) establishes that NSAs shall carry out their tasks in an open, non-discriminatory and transparent way. They should promptly respond to requests and applications and communicate its requests for information without delay and adopt all its decisions within four months after all requested information has been provided. Moreover, NSAs shall be free to carry out all inspections and investigations that are needed for the accomplishment of its tasks and be granted access to all relevant documents and to premises, installations and equipment of infrastructure managers and railway undertakings.
- 2.24 Article 18 of the Safety Directive requires that NSAs publish an annual report concerning their activities in the preceding year and send it to the European Railway Agency by 30 September at the latest.

NSAs in EU Member States

- 2.25 Different Member States have adopted different solutions regarding the establishment of the NSA. To aid the analysis for this report, we have conducted five country case studies (contained in Appendix A). The table below summarises the role of each NSA in the five case studies selected. The majority of the analysis and evidence for this section of the study is drawn from these case studies.
- 2.26 The case studies illustrate that in some Member States, NSAs are integrated with Transport Ministries (e.g. Germany) or are a separate body under the control of the Transport Ministry (e.g. Italy). While in other cases they are part of an independent authority with responsibility for, amongst other things, the regulation of the sector (e.g. Hungary and Poland). All these arrangements are compliant with the Safety Directive, which requires the independence of NSAs from railway undertakings, infrastructure managers, applicants for certificates and procurement entities only. However, when NSAs are part of a wider institution that encompasses Regulatory Bodies (RB), as with the Hungarian and Polish authorities, some stakeholders raised concerns. In Hungary some operators noted that they do not make recourse to the RB in case of problems with the NSA, as these are part of the same organisation, hence their mutual independence is questionable. A similar concern was raised in Poland, where the NSA and the Regulatory Body are integrated within the same authority, the UTK. It should be noted that no such concern was raised in the UK which has a similar structure. Each of these NSAs (except the UK) is discussed in detail within the case studies.

TABLE 2.1 CASE STUDY NSAS: STAFF AND BUDGET

		Germany	Hungary	Poland	Italy	France
Staff headcount		1,050	54	180 (*)	100	101
Budget (millions)	Revenue (2010)	€53.0	€1.6	€4.4 (*)	€11.9	€13
	Cost (2010)	€81.4	€2			

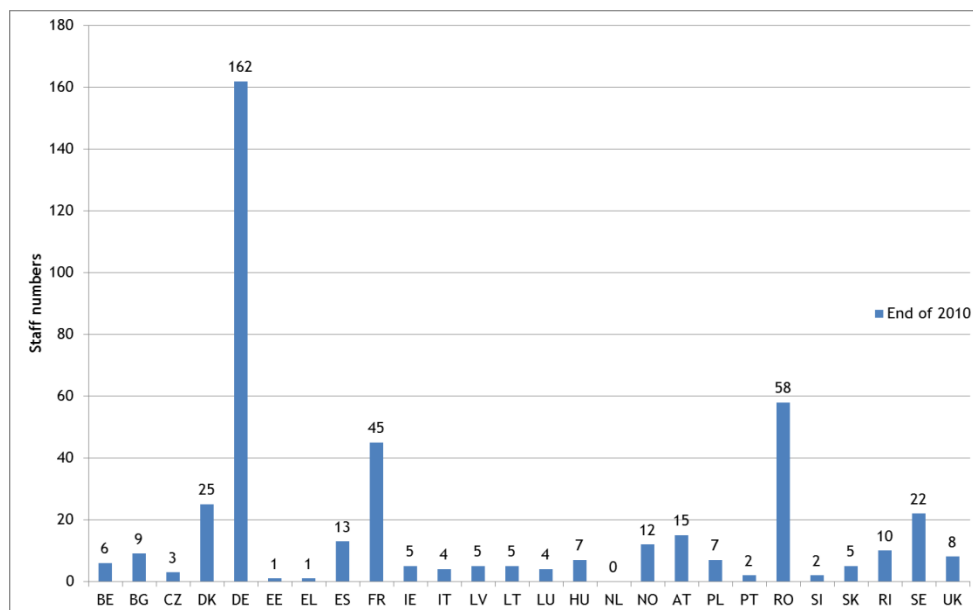
Note: (*) Total for UTK, which is both RB and NSA. No figures available for NSA activities only

NSA organisation

- 2.27 The case studies reveal that the number of staff and budget of NSAs varies significantly across Member States and in a number of interviews NSAs claimed to be understaffed. Recent data published by ERA on NSA staff involved with interoperability (see Figure below) confirms the heterogeneity of the amount of human resources across NSAs in EU Member States. The data highlights that, in view of the complexity and workload of interoperability related activities, countries with fewer than five people working in this area may face challenges.
- 2.28 As described in the ERA Interoperability Report³, differences in size of NSAs may reflect their different responsibilities, and the size of the respective railways. For example, the German NSA may require more staff to process authorisations due to the specific Länder system of regional government as well as the presence of a high number of passenger and freight RUs.

³ European Railway Agency Interoperability Report 2011

FIGURE 2.4 NUMBERS OF NSA STAFF DIRECTLY INVOLVED WITH INTEROPERABILITY



Source: ERA Interoperability Report, 2011

- 2.29 Other issues of concern for NSAs are the independence of decision making staff and their level of technical capability. In the case of the French EPSF, around 50% of its technical staff are on secondment from SNCF. Some stakeholders have questioned whether this can compromise their independence, although the NSA itself strongly disputes allegations of partiality by seconded staff.
- 2.30 The technical capability of staff is a separate issue. Again in France it was noted that many expert EPSF specialists are approaching retirement and are likely to be replaced with staff with less relevant experience or understanding of the rail sector. Similarly, the Hungarian NKH is concerned that at present it is not able to attract suitably qualified staff, due to the low salaries which it is able to offer.
- 2.31 The difficulties surrounding NSA staff recruitment is mentioned in the ERA Interoperability Report 2011. All NSAs in the EU, except in Denmark and the UK, experience problems in this area. The report indicates that the most problematic issues are less attractive NSA salaries and the limited number of rail experts in the labour market. The latter is related either to the specifics of the national educational system, which does not supply sufficient numbers of graduates with technical railway knowledge, or to the competition for qualified staff from the rail industry, which may provide better salaries.

NSA operations

Safety certificates

- 2.32 From the 1st January 2011, the Railway Safety Directive 2004/49/EC (and subsequent amendments) required RUs to hold a safety certificate in order to be granted access to railway infrastructure. The responsible authorities for issuing these certificates are the NSAs.

- 2.33 The safety certificate has two parts:
- **Part A:** the acceptance of a Railway Undertaking’s Safety Management System as described in Article 9 and Annex III of Directive 2005/49/EC. The Part A certificate is valid throughout Europe providing the type and extent of the operation is unchanged. NSAs are therefore required to accept Part A certificates issued by other Member State NSAs should the RU request to operate on a different network within Europe.
 - **Part B:** the acceptance of provisions adopted by the RU to meet requirements necessary for safe operation, as described in Annex IV of Directive 2004/49/EC. These cover compliance with network specific requirements for staff competence and management of rolling stock. The Part B certificate states the ability of the RU to comply with network specific rules applied in the Member State in which the RU operates. Therefore an RU can have a single Part A certificate but as many Part B certificates as the Member States in which it provides services.
- 2.34 As indicated by a study commissioned by the European Railway Agency⁴, different NSAs have different approaches regarding the issuing of safety certificates. This is determined either by: divergent interpretation of EU legislation, or by different operating approaches, technical capabilities and the amount of resources dedicated to these activities.
- 2.35 One of the key findings from the 2010 study was that different approaches are used by NSAs for the release of safety certificates. In particular:
- There was no consistent assessment process to ensure that NSA decisions were harmonised, or at least followed similar approaches;
 - NSA resources and activities were not always targeted on those areas or operators who created the biggest risks; and
 - The NSA processes or procedures were not always found to be transparent, making it difficult for RUs to understand what was expected of them;
 - There were problems in the transparency and application of National Safety Rules.
- 2.36 For example one stakeholder, representing different RUs, pointed out in a recent workshop that there are examples of NSAs not accepting Part A certificates released in other Member States and tend to “overregulate” Part B to cover national rules from part A. The 2010 Interfleet report also indicated that a small number of NSAs did not conform to the process and timelines set out by the EU Safety Directive, of issuing certificates within four months. This was also confirmed in our case studies. Interestingly, the Interfleet report claims that even for those NSAs who state they meet the four month deadline, there is scope for them to extend this period artificially by “procrastinating” over advising the RU on what documentation to submit and how.

Cost of Safety Certificates

- 2.37 There is great variation in the fees charged to RUs for the issuing of safety certificates with countries that issue it for free (Sweden and Great Britain) and others charging up to €70,000 in some circumstances. The following table shows the comparative fees charged

⁴ Report on Safety Certification - Interfleet 2010.

for the release of safety certificates based on the information provided by The Rail Liberalisation Index 2011 and those collected in the undertaken case studies for this Impact Assessment.

TABLE 2.2 COMPARATIVE FEES OF SAFETY CERTIFICATES

Country	Cost of safety certificate (€)	Source (*)
Sweden	0	A
UK	0	A
Czech Republic	40	A
Slovakia	100	A
Estonia	639	A
Romania	1,000	A
Slovenia	1,418	A
Bulgaria	3,270	A
Denmark	3,700. . The total sum varies depending on the work required	A
Poland	5,000 (Part A); 2,100 (Part B)	B
Portugal	5,000	A
Hungary	In the range of 3,600 - 6,900 according to the amount of vehicles of the RUs.	B
Austria	10,000	A
Spain	10,000	A
Belgium	7,000-15,000	B
Greece	30,000	A
Italy	30,000	A/B
Netherlands	30,000	A
Finland	The fees for issuing the safety certificate are calculated according to the workload involved. . The hourly rate currently charged is €140 per hour	A
Germany	The fees for issuing the safety certificate are calculated according to the workload involved. The German case study indicates up to €70,000.	B

Note: (*) A: IBM (2011) Rail Liberalisation Index 2011; B: Steer Davies Gleave case studies

Authorisation of rolling stock

- 2.38 As with safety certificates, there is great variation in both the time required and cost charged by NSAs, to issue authorisations of a vehicle design type (“type approval”).
- 2.39 In this case, however, in addition to the administrative fees charged by NSAs, the cost is impacted by the significance of tests and documentation involved which makes it difficult to identify the exact amount of authorisation costs. The Rail IBM Liberalisation Index provides a variety of data which is often difficult to compare: for some countries it reports the cost of the overall procedure of homologation (understood to mean vehicle authorisation), for other countries the figure provided is the administrative fee only (leaving out costs of tests and documentation to produce).
- 2.40 The ERA “Report on Vehicle Authorisation” (2011) indicates total additional authorisation costs of around €1.6 million per vehicle. We have however encountered significant variation across Member States and type of authorisation, as discussed below.
- 2.41 Further details on our findings in relation to authorisation are described in Chapter 3.

Regulatory Bodies***Role***

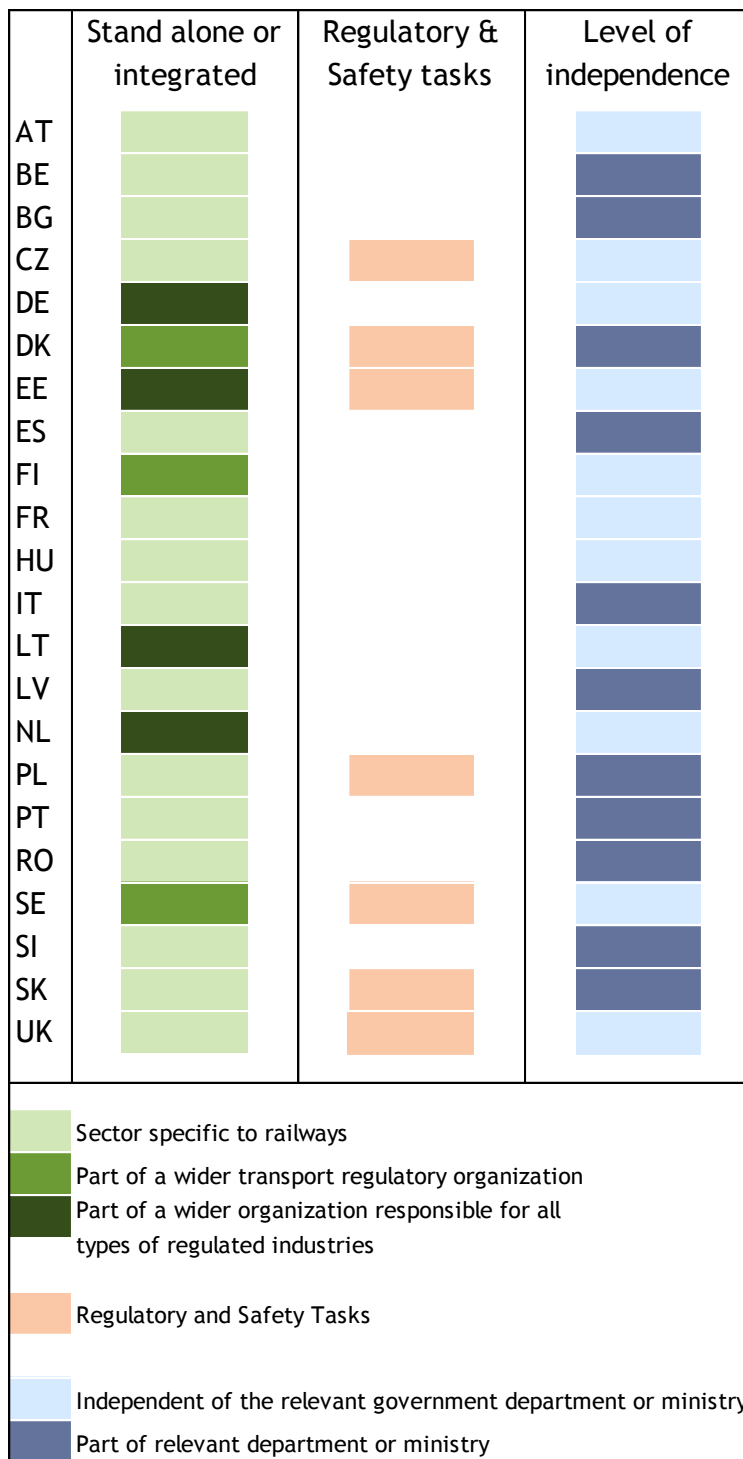
- 2.42 For the efficient management and fair, non-discriminatory use of rail infrastructure, Directive 2001/14/EC requires the establishment of a Regulatory Body (RB) that oversees the application of the Community rules and acts as an appeal body, notwithstanding the possibility of judicial review. The primary aim of the RB is to ensure non-discriminatory access to infrastructure, and that the IM does not abuse its dominant position. The Regulatory body must ensure independent and impartial oversight of the market, in order to allow RUs to gain access to national railway infrastructure on non-discriminatory terms, and compete effectively for rail traffic.
- 2.43 Regulatory Bodies may be required by a Member State to approve a Framework agreement for access to the network between the operator and the infrastructure manager before it is concluded with an applicant. The framework agreement specifies the characteristics of the infrastructure capacity required by, and offered to the applicant over a period of time, exceeding one working timetable period.
- 2.44 Article 30 (1) of the Directive establishes that a Regulatory Body can be the Ministry responsible for transport matters or any other body. However, it should be independent from any infrastructure manager, charging body, allocation body or applicant. Appeal and regulatory functions may be attributed to separate bodies.
- 2.45 Article 30 (2) also provides for the right of applicants to appeal to the Regulatory Body for claims of unfair treatment, discriminations or other damages suffered in terms of competition. In particular appeals can be lodged against decisions adopted by the Infrastructure Manager or where appropriate the Railway Undertaking concerning:
- The Network Statement;
 - Criteria contained within it;
 - The allocation process and its result;
 - The charging scheme;

- Level or structure of infrastructure fees which it is, or may be, required to pay; and
 - Safety certificate, enforcement and monitoring of the safety standards and rules.
- 2.46 Article 30 (3) establishes that the Regulatory Body should ensure that charges set by the Infrastructure Manager are appropriate and non-discriminatory.
- 2.47 The Regulatory Body must supervise any negotiation between applicants and an Infrastructure Manager concerning the level of infrastructure charges, and should intervene if negotiations are likely to contravene the requirements of the Directive. The regulatory body has the power to request relevant information from the Infrastructure Manager, applicants and any third party involved within the Member State concerned, which should be supplied without undue delay.
- 2.48 Article 30 (5) requires Regulatory bodies to decide on any complaints and take action to remedy the situation within a maximum period of two months from receipt of all information. Decisions of the Regulatory Body are binding for all parties covered, but are subject to judicial review pursuant to article 30 (6). Article 31 provides information exchange among national regulatory bodies regarding their work, decision-making principles and practices, for the purpose of coordinating decision-making principles across the Community.
- 2.49 According to Directive 2007/58/EC, a Regulatory Body can limit the right of access to the market, where this right would compromise the economic equilibrium of public service contracts. This was the case for Arenaways in Italy, which was prevented from calling at intermediate stations between Turin and Milan. Allowing services to stop at these stations would have compromised the economic equilibrium of the public service contract with the incumbent Trenitalia, as stipulated by the Region.

RBs in EU Member States

- 2.50 Member States have adopted different approaches to setting up their respective RBs in compliance with the requirements of Directive 2001/14/EC. In some cases the role and organisation of the RB has changed substantially over time. For example, the RB for the United Kingdom was set up prior to the Directive and has been operational for over 17 years, although its role and functions have been modified to reflect the requirements of EU rail legislation.
- 2.51 The approach is often dependent on the structures and powers of the RBs. These can be categorised according to the degree of independence of the RB from the relevant government departments, and from the main operators in the sector, but also according to whether they are a standalone RB as opposed to a part of a wider regulatory organisation. The following figure illustrates the choices made by Member States in relation to the structure of RBs.

FIGURE 2.5 TYPES OF REGULATORY BODIES



Source: *Typology and structure of Regulatory Bodies in the EU Railway Sector*, Steer Davies Gleave Note for the European Parliament (2010)

2.52 As suggested in a briefing paper recently prepared by Steer Davies Gleave for the European Parliament, the main strength of having a purely rail focused Regulatory Body is

- that the core competencies and experience of the staff within the team are rail specific, and the RB is tasked with supporting the development of the rail sector alone.
- 2.53 While this facilitates the development of rail industry knowledge and skills among the staff, it may also mean that wider transport issues are ignored and as a result some Member States have opted for a RB with a wider, cross-transport role. Issues of competition and discrimination extending beyond the rail sector can be considered in a wider context. In addition, lessons from the liberalisation and regulation of different transport modes can be more easily transferred. However, within this framework, there remains the risk that rail issues are side lined in favour of wider transport policy, and that the specific problems (such as the current limitations in interoperability) receive insufficient attention.
- 2.54 Integration of rail regulation into a body responsible for general utilities regulation, as in Germany and Estonia, facilitates the transfer of experience and learning across sectors. This can be particularly useful where common issues arise. For example, in relation to the allocation of common costs for the purposes of access charging or determining an appropriate rate of return on the regulated asset base. In these circumstances, it is important to ensure that the governance and constitution of the regulatory body do not conflict with the particular requirements of Directive 2001/14/EC and that the necessary skills and resources are available. However, there is no suggestion that such issues have arisen in the particular Member States adopting this regulatory model.
- 2.55 As with NSAs, some concerns arise when RBs also take charge of safety tasks, as RUs do not then have an external appeal court to which they can refer to in complaint cases.
- 2.56 While Directive 2001/14/EC does not require independence between the Regulatory Body and the Transport Ministry, it appears that in those Member States where such independence has been adopted, stakeholders have greater confidence in the role of the Regulator and are more willing to approach the RB with concerns. For example some interviewed stakeholders pointed out that the Polish UTK, which is the joint NSA and RB, shows poor independence and is believed to be acting under the influence of the dominant incumbent operator.
- 2.57 Including the RB within a government department, while technically compliant with the legislation, may undermine its independence. This is particularly the case where the department is a shareholder in the incumbent train operator or Infrastructure Manager. In such circumstances, the department may have a strong incentive to influence regulatory decisions to benefit the party with which it has a direct financial interest, for example by raising access charges above efficient costs in order to reduce the public subsidy.
- 2.58 The Rail Recast aims to address the deficiency in the First Package by requiring that the RB is not subject to political control as well as being independent of the IM and the RU.
- 2.59 One of the main disadvantages of having a fully independent RB is that it can result in undue focus on a relatively narrow set of rail-related duties and responsibilities. In the United Kingdom the RB has been regarded as too independent with too little regard for the impact of its decisions on public finances. In 2005, following a review of the industry, the responsibilities of the Office of Rail Regulation (ORR) were modified such that it was required to take explicit account of the availability of public funds when setting the

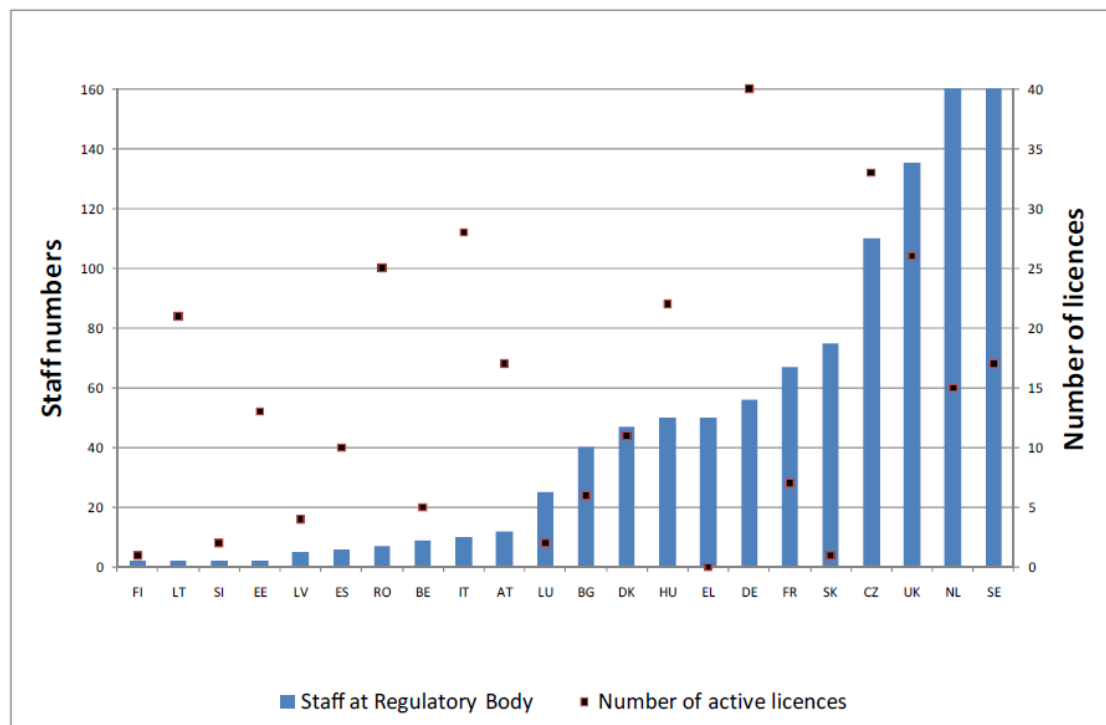
revenue requirement for Network Rail, the national Infrastructure Manager. However, this change had no bearing on the specific requirements set out in paragraph 2 of Article 30 of Directive 2001/14/EC and did not compromise the independence of the ORR in terms of its governance and funding.

- 2.60 Note, however, that establishing a separate RB may not be sufficient to ensure effective, independent regulatory decision making. In France, the creation of ARAF as an independent regulator to replace the ministry-based shadow regulator MCAF has been seen by the sector as a whole as a welcome improvement. However, RUs do not perceive this will result in any effective influence on the behaviour of the incumbent operator, or active promotion of competition.
- 2.61 In some Member States, RBs have been created without legal provision for ensuring appropriate or sufficient staff and other resources. While others have been established subject to the requirement that they do not increase the financial burden to the state. For instance, in Italy, the regulation establishing the RB (URSF) explicitly states that implementation of the regulation itself should not impose new or increased burdens on the state budget. These RBs are unlikely to function effectively and demonstrate the need for independent resourcing as well as a separate institutional form.

RBs organization

- 2.62 Many stakeholders have identified inadequate administrative capacity as a key reason for ineffective regulation, and several RBs are generally regarded as under-resourced. The figure below illustrates the number of staff members currently working for rail RBs. The same figure also shows the number of freight operators (active licenses) in the Member States identified.

FIGURE 2.6 NUMBER OF ACTIVE LICENSES AND STAFF NUMBERS IN REGULATORY BODIES



Source: *Typology and structure of Regulatory Bodies in the EU Railway Sector*, Steer Davies Gleave Note for the European Parliament (2010) Note: the values for DE, NL and SE have been truncated for presentational reasons but also include staff that work in other areas, but within the same institution.

- 2.63 The staff numbers are generally very low across Member States, with most RBs employing less than 60 people and around half employing little more than 20. In our view, the effective regulation of some rail networks is therefore likely to be challenging. For example, the Italian RB with only 10 staff members (and a budget of €30,000 + salaries) oversees a market that has over 50 passenger and freight operators.
- 2.64 Situations in which a regulator with less than five staff oversees a market with numerous operators can also be found in Estonia, Lithuania, Romania and Spain. In other cases, the limited resources may reflect limited market entry, although lack of staff may itself engender a perceived lack of credibility among potential entrants.
- 2.65 Aside from the issue of staff numbers, RBs may also suffer from a lack of suitably qualified staff. The Impact Assessment undertaken for the Recast of the First Railway Package (European Commission, 2009) states that a number of stakeholders mentioned that staff who work within the RBs were not always sufficiently qualified to undertake regulatory activities.

Funding

- 2.66 RBs draw funding from two different sources: direct funding from a Ministry or other government sources; and financing from the industry.

- 2.67 All but five RBs are funded by the State with the others being funded either by:
- the IM (Latvia and Belgium);
 - the RUs (Austria, Hungary); or
 - a combination of the two (United Kingdom).
- 2.68 There are no problems in principle with any of these arrangements as long as the funding arrangements are transparent and the level of funding is not influenced by the decisions of the RB. No evidence of this happening has been identified.

RBs operation

- 2.69 The analysis undertaken for this IA support study has demonstrated a number of noteworthy points regarding the operation of the RBs. Since its founding in 2007 the German Regulatory Body has dealt with several cases that are leading to an implicit discrimination of non-incumbent railway undertakings. Among these are the pricing of railway stations and network infrastructure and the performance regime for station and network infrastructure. From the perspective of the German regional passenger rail authorities, to date these cases have not been satisfactorily resolved. This is mainly due to the German legislative framework and lack of transparency amongst the DB Infrastructure Managers.
- 2.70 An interviewed stakeholder stated that:
- “the start-up of the German Regulatory Body, the Bundesnetzagentur, has taken a long time and in our eyes is still not yet finished, as the authority is still lacking technical staff and sufficient resources. In comparison to other authorities, several administrative procedures of the Bundesnetzagentur have so far taken a long time. Several times the regulatory body has announced to implement a control of the level of infrastructure fees, but so far there are no tangible results of this project, probably due to the lack of resources of the authority”.*

Notified Bodies

Role

- 2.71 According to article 2j of the Interoperability Directive (2008/57/EC), Notified Bodies (NoBos) are:
- “The bodies which are responsible for assessing the conformity or suitability for use of the interoperability constituents, or for appraising the EC procedure for verification of the subsystems”*
- 2.72 This verification, based on Technical Standards for Interoperability (TSIs) must enable the authorities responsible for authorising the putting into service of subsystems to be certain that at the design, construction and putting into service stages, the result is in line with the regulations, technical and operational provisions. It must also enable manufacturers to be assured of equality of treatment, whatever the country. According to Article 13 of the Interoperability Directive “where the corresponding TSI so requires, assessment of the conformity or suitability for use of an interoperability constituent shall be carried out by

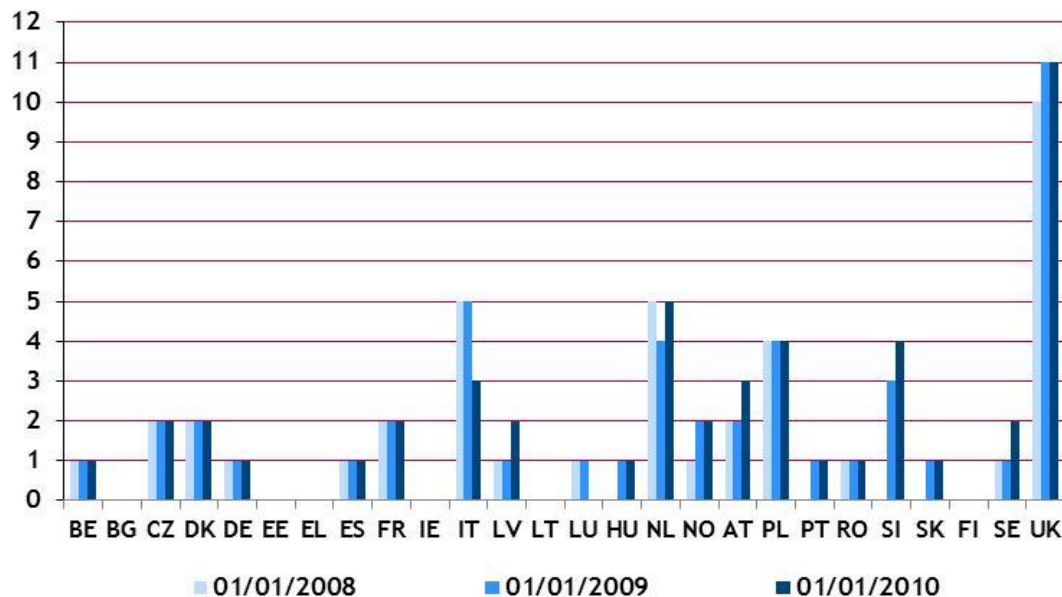
the notified body with which the manufacturer or his authorised representative established in the Community has lodged the application”.

- 2.73 As set out by Article 18 of Directive 2008/57/EC, the task of the Notified Body responsible for the “EC” verification of a subsystem begins at the design stage and covers the entire manufacturing period through to the acceptance stage, before the subsystem is put into service. It also covers verification of the interfaces of the subsystem in question with the system into which it is incorporated, based on the information available in the relevant TSI and in the national registers of infrastructure and of rolling stock. Notified Bodies are required to meet the assessment criteria provided in the relevant European standards, and are selected by Member States by applying the criteria provided in Annex VIII of Directive 2008/57/EC. A Member State can withdraw approval from a body which no longer meets the criteria referred to in Annex VIII, which sets out the minimum criteria which must be taken into account by the Member States when notifying bodies.
- 2.74 The Directive 2008/57/EC establishes that the Notified Body responsible for checking production must have permanent access to:
- building sites, production workshops, storage areas;
 - where appropriate, prefabrication or testing facilities; and
 - more generally, to all premises which it considers necessary for its task.
- 2.75 In addition, the Notified Body may pay unexpected visits to the worksite or to the production workshops of the manufacturer/relevant applicant. At the time of such visits the Notified Body may conduct complete or partial audits.
- 2.76 The Notified Body must be independent of the applicants and ensure the independence of the staff responsible for the checks.

NoBos organization and operation in the EU Member States

- 2.77 According to the ERA Interoperability Report 2011, the total number of Notified Bodies as of 1 January 2010 was 49, an increase of 4.3% compared with the situation on 1 January 2009.

FIGURE 2.7 NUMBER OF NOTIFIED BODIES UNDER DIRECTIVE 2008/57/EC BY MEMBER STATE

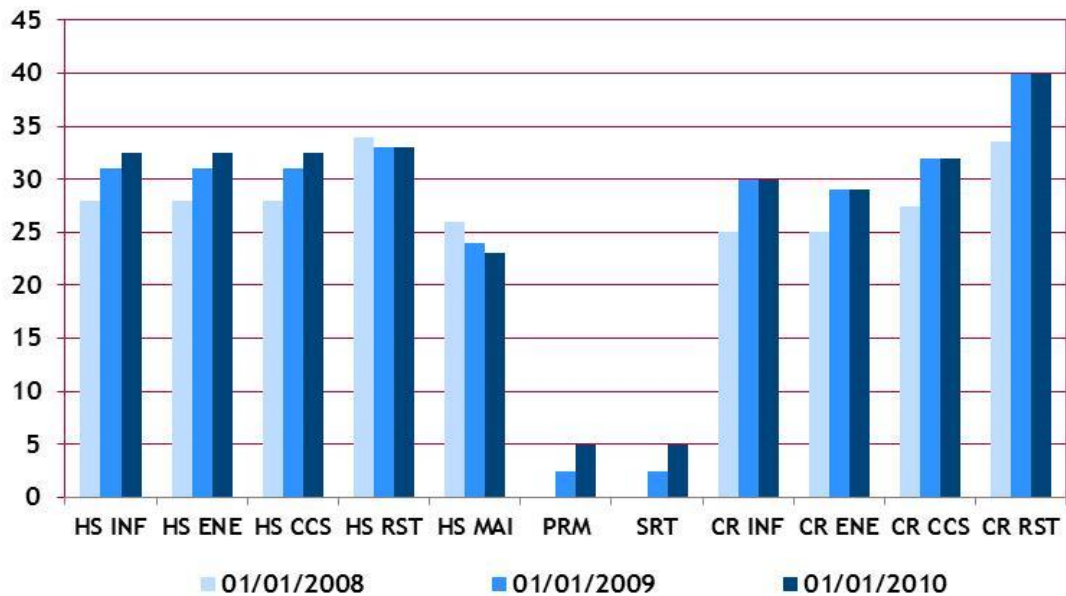


Source: ERA Interoperability Report, 2011

- 2.78 NoBos are not present in all of the relevant EU Member States. As of 1st January 2010, 18 Member States and Norway have established at least one Notified Body. The Member States which have not yet done so are Bulgaria, Estonia, Greece, Ireland and Lithuania. Some Notified Bodies suspended their activities as in the case of:
- Finland in 2007, on the basis that its services' generated negative operating results;
 - the Notified Body in Luxembourg in 2009; and
 - two Italian cases (one of these claimed to have closed because of the reduction of business activities in this country following completion of major projects involving HS railway lines).
- 2.79 With a total of 11 established Notified Bodies, the UK takes the lead in the EU, followed by The Netherlands and Slovenia with five and four notified bodies respectively.
- 2.80 As discussed in the Interoperability Report, competition between the Notified Bodies is on a regional rather than a European scale, as language is a key asset to the business. The few examples of competition are present only in those countries which use the same language. For example both Belgian and French Notified Bodies have successful contracts with French and Belgium companies respectively in both Member States.
- 2.81 Of the 49 Notified Bodies across the Member States, 42 operate under both the High Speed and Conventional Directives, one only under the High Speed Directive, and six only under the Conventional Network legislation.
- 2.82 The number of Notified Bodies competent to carry out conformity assessment against the PRM TSI and TSI relating to Safety in Tunnels appears to be relatively low, as shown in the

figure below. According to the Interoperability Report, in the last two years only four countries, Austria, Czech Republic, Hungary and The Netherlands, notified conformity assessment bodies with a specific indication of their competence for TSIs PRM and SRT. We have been informed that, following the publication of the Interoperability Report, a further NoBo for these aspects has been authorised in France. The number of Notified Bodies competent for TSIs PRM and SRT is expected to increase considerably with the re-notification of the Notified Bodies required by Directive 2008/57/EC.

FIGURE 2.8 NUMBER OF NOTIFIED BODIES UNDER DIRECTIVE 2008/57/EC BY SUBSYSTEM/TSI



Source: ERA Interoperability Report, 2011

- 2.83 The case studies undertaken have provided a more detailed picture of the organisation and operation of Notified Bodies.
- 2.84 In Germany, the tasks of the Notified Body (NoBo) are carried out by EISENBAHN-CERT (EBC). EBC is an autonomous organisation under public law and acts as a financially and legally independent department of the EBA. The main tasks of EBC are to assess the conformity or suitability for use of the interoperability constituents and to carry out EC-verification of subsystems. The close connection between the German NoBo and the NSA does not ensure a smooth authorisation process. Some stakeholders expressed concern that on occasions the documents that have been provided by the German NoBo have not been automatically accepted by the NSA and they have been rechecked leading to an increase in costs and timescales for authorisations.
- 2.85 French Notified Bodies have been recognized as having a good technical knowledge but some stakeholders have had some difficulties with their work. In the UK, stakeholders pointed out that the pricing by some NoBos for the same work can be highly variable, perhaps on the grounds of available capacity at the time.

- 2.86 One stakeholder claimed that some Notified Bodies try to avoid their obligations and reduce prices in order to win calls for tenders or just to simplify processes for their usual customers from whom they are not truly independent. As a result, the quality of work of some NoBos has been questioned by NSAs, and the validity of their certificates is not recognised. As a consequence the NSAs require repeat verifications, contrary to Article 11 & 16 of Directive 2008/57/EC.
- 2.87 As outlined in the CER UNIFE position paper on the role of ERA, Article 13 of the Agency Regulation states that ERA has the option to monitor the work of the Notified Bodies. According to interviewed stakeholders, this option has, to date, not been exercised and the Commission and ERA should make use of these powers. In the view of a particular stakeholder, when necessary, ERA should draw up binding European instructions to NB-Rail (the association of NoBos) for the interpretation of provisions in the TSIs.

National rules

- 2.88 The railways across Europe have developed as islands over the past century with each Member State choosing to adopt their own national standards (or in some cases multiple, competing, national standards) with little thought for the effects of integration across borders. These rules act as a barrier for the growth of the rail sector in terms of:
- Availability of rolling stock that can cross borders; and
 - Getting vehicles and equipment authorised to operate in a number of Member States.
- 2.89 National rules can be divided into National Technical Rules (NTRs) and National Safety Rules (NSRs). The Agency is currently facilitating the process of notification of NTRs by the MS with the ultimate goal of removing the majority, if not all, NTRs. However, the process is slow with substantive progress restricted to a subset of NTRs. Given this, it is difficult to obtain a clear picture of what NTRs exist in different Member States, let alone understand which ones are no longer relevant and can therefore be removed. There is also a substantial number of NSRs. There is a more advanced process in place for the notification of national safety rules (relative to NTRs) and a NSR task force is currently working on further progress in this area.

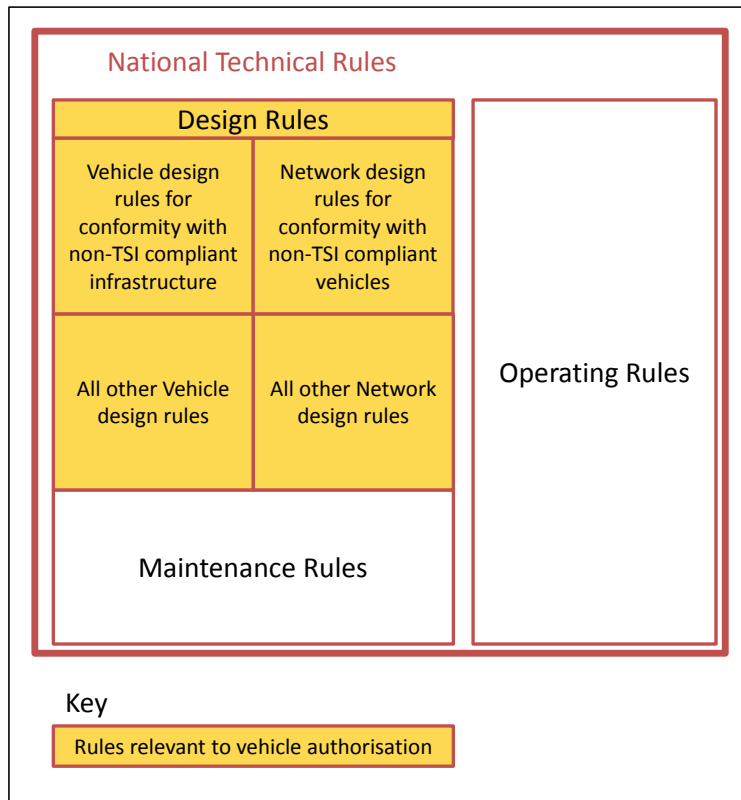
Scope of national technical and safety rules

National technical rules (NTRs)

- 2.90 NTRs are covered by (i.e. will be replaced by) TSIs except where there is non-TSI conforming rolling stock and non-TSI conforming infrastructure.
- 2.91 The complete scope of national technical rules is illustrated in the figure below with more detail illustrated for those rules relevant to vehicle authorisation. The key categories of technical rules are:
- Design rules (i.e. rules covering structural sub-systems)
 - Maintenance rules (i.e. functional sub-system maintenance)
 - Operating rules (i.e. functional sub-system operations)

- 2.92 Within each of these categories there are rules for networks and vehicles and a further division into rules that have been superseded by TSIs and national rules that are required whilst non-TSI compliant rolling stock and non-TSI compliant networks are in place.

FIGURE 2.9 NATIONAL TECHNICAL RULES SCHEMATIC



National safety rules

- 2.93 Safety Rules are covered by Annex 2 of Directive 2004/49/EC (and subsequent amendments), with some overlap of technical and safety rules in the operational rules area.

Current number of national rules (both explicit and implicit)

National technical rules

- 2.94 ERA has calculated that there are approximately 320 parameters required to describe all aspects to be checked for vehicle authorisation based on TSIs and NTRs currently in place. Of these 320 parameters, approximately 120 relate to network compatibility. Using this as a basis (i.e. that there is a rule for each parameter) it is possible to calculate the number of vehicle technical rules and network technical rules relevant to the movement and operation of trains, both explicit and implicit. There is no clear picture available for the number of maintenance and operational rules

National safety rules (NSRs)

- 2.95 The majority of NSRs have been notified and therefore there is a reasonable understanding of the quantity of rules notified as national safety rules. Due to variations in

understanding, it is likely that not all of these rules actually qualify as NSRs and that some may not be legitimate, if, for example, they prohibit free movement of goods and services. In addition, many of the NSRs notified by Member States are actually Safety Management System (SMS) rules.

- 2.96 The Agency has expressed the view that the majority of the 1,200 NSRs that have been notified are actually SMS rules and therefore can be removed. However, there are no robust estimates available of the size of the residual.
- 2.97 The number of NTRs and NSRs in each category where information is available is set out in Table 2.3.

TABLE 2.3 TOTAL NUMBER OF NATIONAL RULES

Category of rules	Number of rules
Safety rules	1,200
Vehicle design technical rules - to be covered in future by TSI (when scope is extended)	7500 (300 x 25)
Vehicle design technical rules to be covered in future by TSI (currently open points)	2000 (80 open points x 25)
Vehicle design technical rules - non-TSI required for compatibility with non-TSI conform networks	3000 (120 x 25)
Network design technical rules (relevant for vehicle-network interface)	3000 (120 x 25)
Total National Rules currently quantified	11,700
Technical operational rules	400 (very high level estimate provided by Agency)
Technical rules for Maintenance	400 (very high level estimate provided by Agency)
Other Network rules	Unknown

National Rule Datasets and the process of transparency and elimination

- 2.98 The current status of information that is available at the EU level on national rules is as follows:
- The DG Enterprise and Industry TRIS database contains draft product rules captured under the Directive 98/34 procedure. This should have been used to notify draft national technical rules for design. At the moment it contains a small portion of national rules.
 - The NOTIFIT database held by DG MOVE contains most national safety rules (largely complete for 20 out of 25 Member States). Virtually no national technical rules are currently notified in this database.
 - The Agency holds National reference documents which contain all national vehicle design rules for all Member States (except Germany, which is expected very shortly).

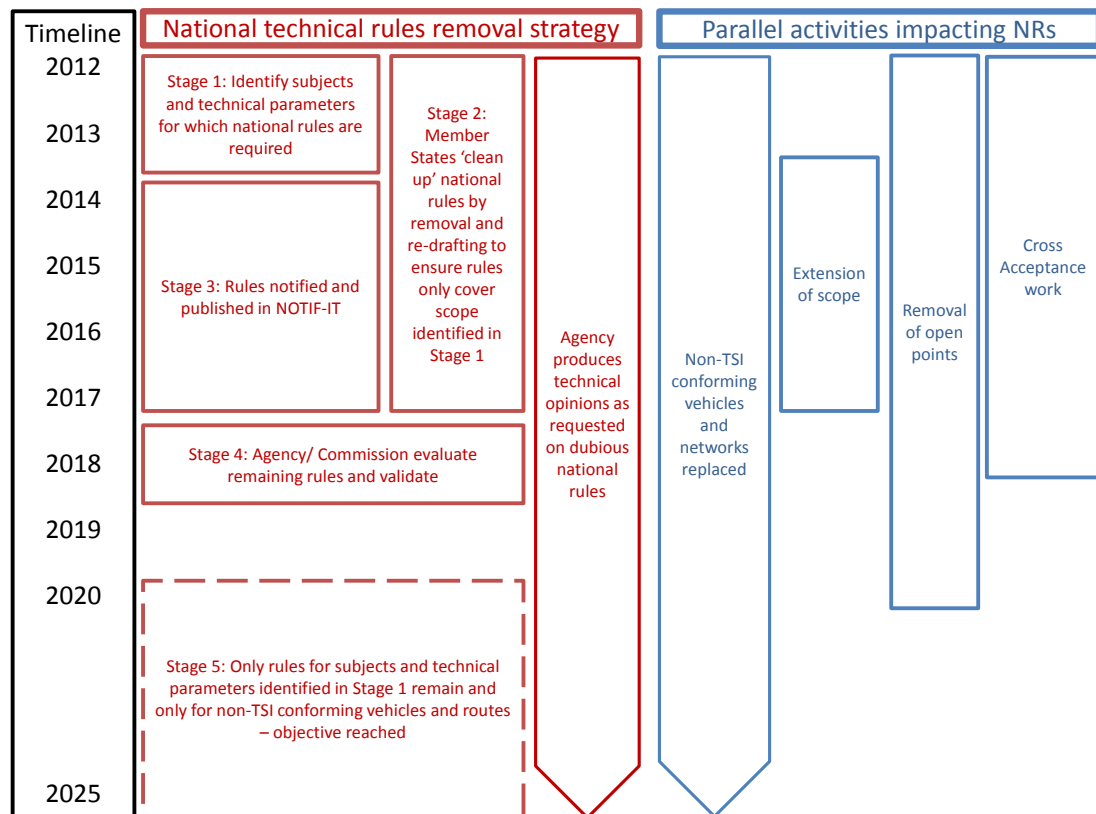
Timescales for removal of national rules

- 2.99 The Agency has been internally considering the process for removal of unnecessary national rules in parallel with this study. This meant that whilst a formally documented process for removal did not exist in time to support our analysis, we have been able to have a dialogue with the Agency as to the process and timescales for removal of national rules. This has included the provision by the Agency of some limited documentation on their current thoughts in this area. In this section we have taken the information gleaned from the Agency and has compiled our interpretation of the anticipated process of notification and removal of rules.

National technical rules

- 2.100 The requirements for the complete removal of NTRs are:
- All TSIs are complete (all open points closed and Member State specific points removed)
 - TSIs implemented in all MSs for all lines (extension of scope)
 - All railway networks and vehicles conform to TSIs
- 2.101 The envisaged process for the removal of all unnecessary national technical rules is illustrated in Figure 2.10:

FIGURE 2.10 PROCESS FOR REMOVING NATIONAL TECHNICAL RULES



Stage 1

2.102 This stage is currently in progress through the work of the Cross-Acceptance unit identifying relevant subjects and parameters, with completion anticipated by the Agency by end 2012/mid 2013. One category of rules for which the outcome of this task is less clear is for the operational rules category where there is no current view on what constitutes an operational rule and what the relevant parameters are.

Stage 2

2.103 This stage is also in process. Cleaning up is a substantial task since every national railway company’s old rules need sorting to clarify which should be national rules and which are simply technical solutions that are part of the SMS. This includes the explicit documentation of current implicit rules. This is a task most effectively carried out by individual Member States once a clear scope of NTRs has been identified in stage 1.

Stage 3

2.104 For each category of rules it is most efficient for the ‘clean-up’ to occur before notification as this saves on the notification of a large number of unnecessary rules. In line with this, limited progress has been made currently with notification of NTRs.

2.105 For rules to be formally notified they need to be included in the NOTIFIT database. Therefore, for vehicle design technical rules the next stage of the process is to transfer

the rules fulfilling criteria of Article 17 of Directive 2008/57 from the National reference documents to the NOTIFIT database.

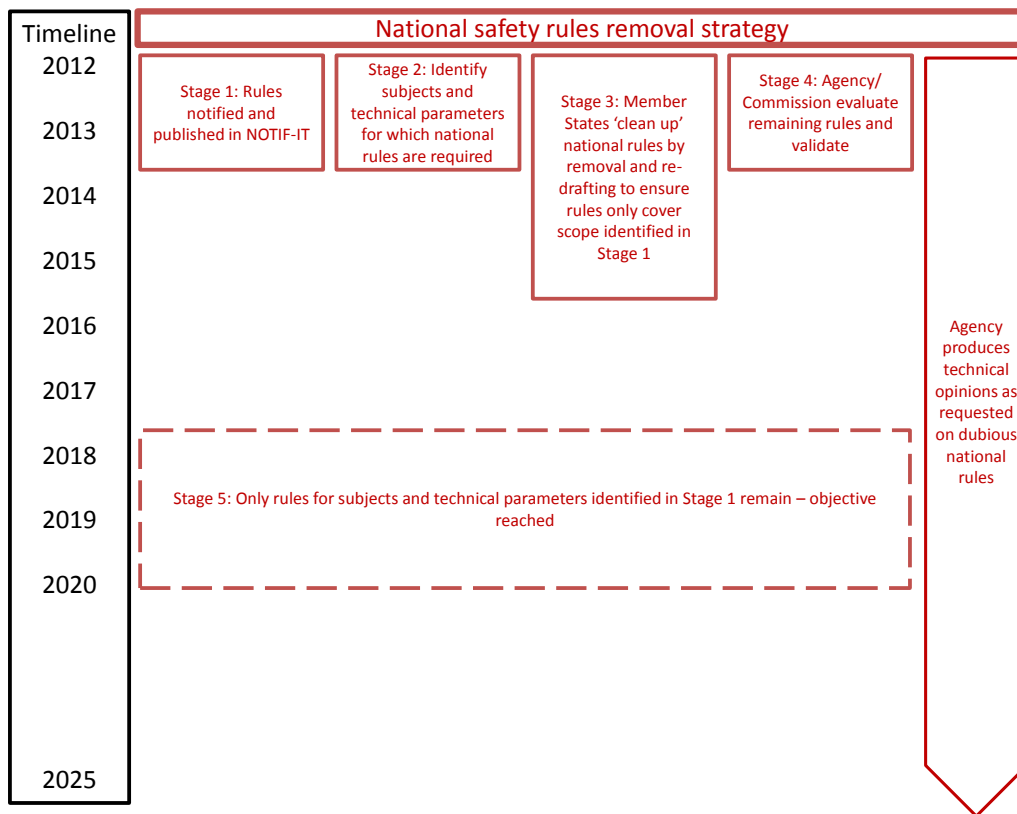
Stage 4

- 2.106 Stage 4 sees the validation of the remaining National Rules by the Commission and the Agency to ensure that no unnecessary rules remain.

National safety rules

- 2.107 The removal process for NSRs is more advanced than for NTRs with the majority of notification having already taken place as already noted. However, identification of appropriate extent of NSRs still needs to be determined and the NSR taskforce is still in process. Therefore, for NSRs some clean-up of rules will be required in the future. The process for removal of NSRs is illustrated in Figure 2.11.

FIGURE 2.11 PROCESS FOR REMOVING NATIONAL SAFETY RULES



Note: Please note that Stage 4 is already in use

3 Problem Definition

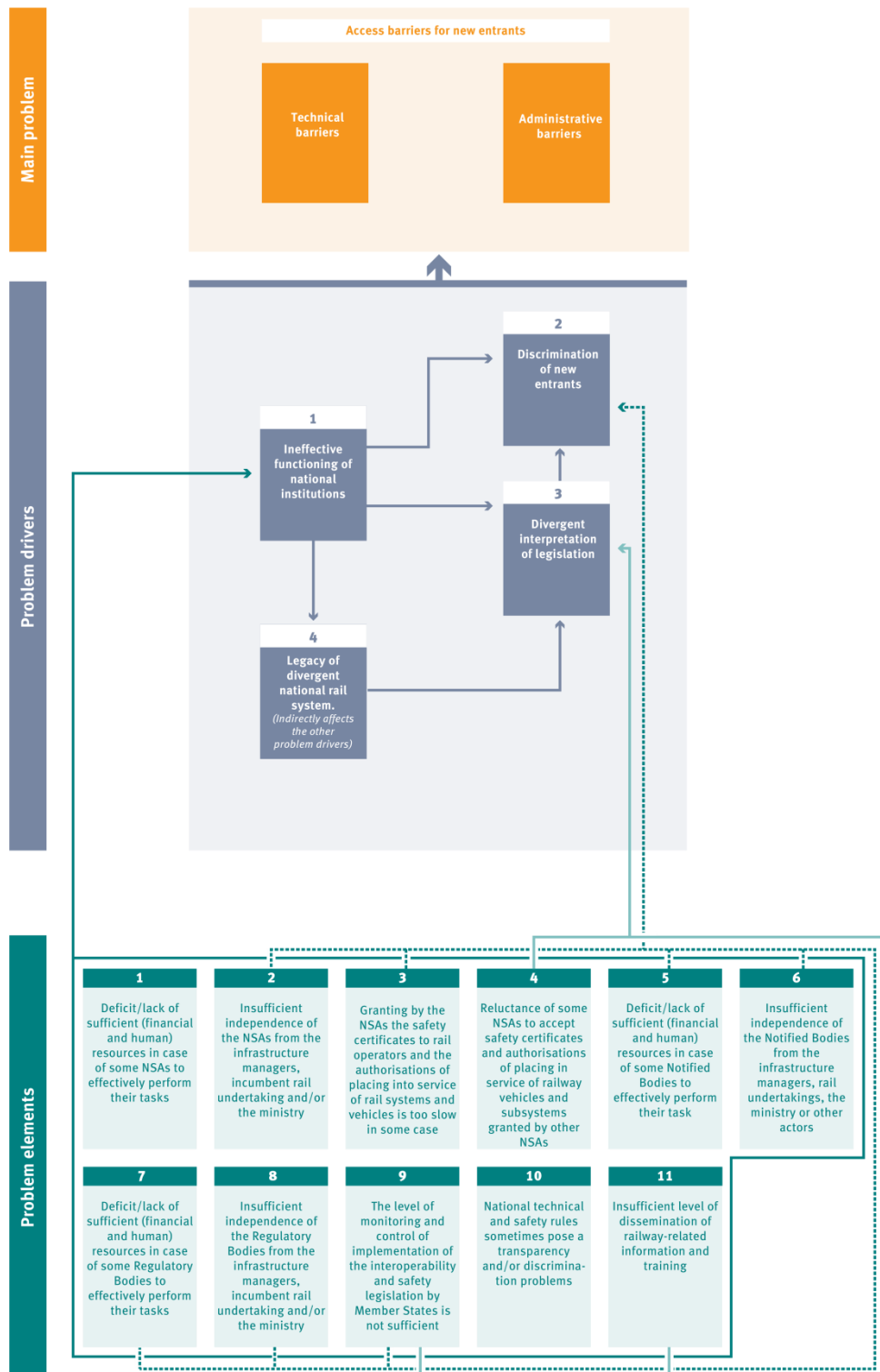
Introduction

- 3.1 This chapter looks in more detail at the problem drivers and elements and the results of the stakeholder discussions on this subject. This chapter also sets out the manner in which the market is likely to evolve if no action is taken (the baseline for future analysis).

Drivers of administrative and technical barriers

- 3.2 On the basis of the analysis of the functioning of the rail market and of the issues detected we have identified the following four principle causes (problem drivers) that lead to the presence of current administrative and technical access barriers:
- Inefficient functioning of the national institutions set up by EU legislation (Problem driver 1);
 - Discrimination against new entrants (both national and foreign) by national institutions (Problem driver 2);
 - Divergent interpretations of EU railway legislation by national authorities (Problem driver 3); and
 - Legacy of divergent national rail systems that has meant that the various networks have grown and evolved heterogeneously over the past century (Problem driver 4).
- 3.3 The fourth problem is particularly important. The issue of legacy systems is slowly being addressed through increasing interoperability with a long term objective of creating a single, technically common, European railway. While this is important, the technical harmonisation of the whole railway is beyond the scope of this particular study. However, a key element of this problem remains the persistence of national rules as discussed above and this element of Problem Driver 4 is within the scope of the study.
- 3.4 The figure below shows the links between the problem categories, the problem drivers and the main issues on which this study focusses. This problem tree diagram differs slightly from the one set out in Figure 2.1 as a result of our analysis but the main thrust remains the same.

FIGURE 3.1 PROBLEM TREE



- 3.5 We believe that the first three problem drivers reflect the principle causes of the main issues within the scope of this study and we have therefore sought to validate the problem drivers directly. We also discuss below the aspects of Problem Driver 4 related to national rules. We are aware that there are other causes that drive the main problem, but these are being considered in more detail through the parallel support study that is being carried out for the Commission (also by Steer Davies Gleave) on further passenger liberalisation and aspects of unbundling. We refer to this hereafter as the parallel study.
- 3.6 In cases where we uncovered evidence of the problems identified in the parallel study we refer to them directly in that study rather than repeat them here unless they are within the scope of this analysis.
- 3.7 These problem drivers and elements were included in the task specifications for this study. They were included in the task specifications as they were the main conclusions that emerged from the evaluation of Regulation 881/2004 that Steer Davies Gleave completed in 2011. In the remainder of this chapter we provide an assessment of the relevance of drivers and their elements on the basis of the evidence obtained from the industry through the stakeholder survey, discussions with stakeholders and desk research.

Who is impacted?

- 3.8 The following categories of stakeholders are primarily affected by the problems identified:
- Railway undertakings, including incumbents and new entrants; and
 - Railway manufacturers, wagon keepers and rail car leasing companies, terminal operators, operators of maintenance workshops and other providers of rail related services.
- 3.9 The following categories are also affected by these problems:
- Infrastructure Managers;
 - Authorities, including rail regulatory bodies, competition authorities, public authorities responsible for the award of PSC and transport ministries;
 - Rail sector workers; and
 - Customers including freight customers and rail passengers.
- 3.10 Society at large is also affected, albeit indirectly, by the problems identified in this and the following chapters. Taxpayers finance the provision of Public Service Contracts, but are negatively affected by the poor performance of rail, compared to for example, travel by road.

Relevance of problem drivers

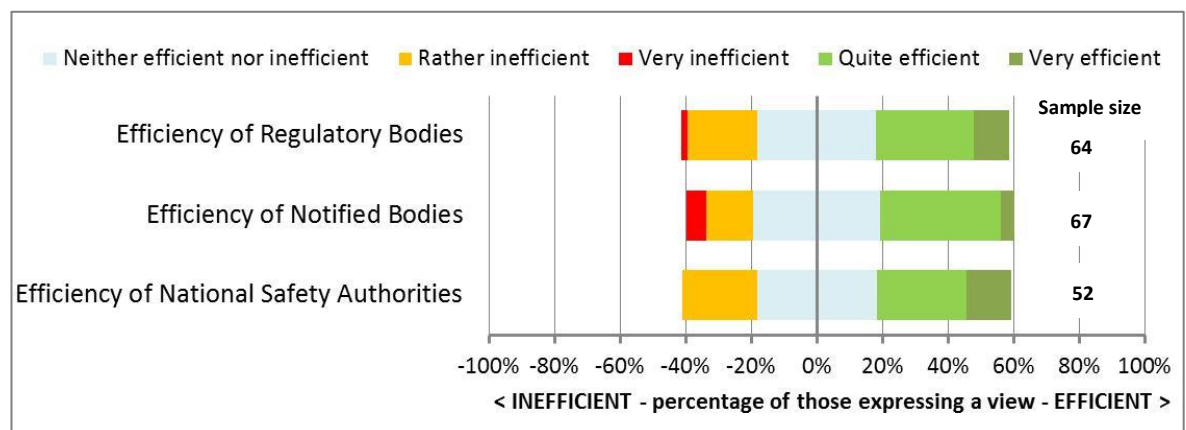
Problem driver 1 - Inefficiency of national institutions

- 3.11 We have previously mentioned that there are problems with the functioning of national institutions. We provide the evidence for this below from the stakeholder analysis (see Figure 3.2) and from our own analysis based on the case study information. The main areas of concern with the functioning of national institutions relate to:

- The workings of the NSAs;
- The functioning of the Regulatory Bodies; and
- The activities of the Notified Bodies (NoBos).

3.12 We have included the activities of the NoBos in this list as their activities are relevant to this problem driver. We are aware that in a number of Member States these are private companies and as such are not part of the “public service”.

FIGURE 3.2 STAKEHOLDERS OPINION ON EFFICIENCY OF NATIONAL INSTITUTIONS (*)



Note: (*) Interested parties excluded

3.13 Overall the stakeholders expressed a similar judgment on the operation of the three national institutions. Once the responses of interested parties are excluded, the judgment of those expressing a view on the performance of the different institutions is reasonably aligned:

- About 40% of the respondents stated that efficiency of national bodies were quite or very efficient;
- A similar percentage rated all three institutions as ‘neither efficient nor inefficient’;
- While about 20% (23% in the case of RBs and NSAs) indicated that they operate very or rather ineffectively.

3.14 This reveals that, although negative perceptions are limited to less than a quarter of respondents, there is a significant “grey area” represented by those who are not entirely satisfied with the operation of these institutions and rated them as ‘neither efficient nor inefficient’ (roughly 40%). It should be noted that more than 25% of the total sample stated that they had no opinion or did not respond on the questions related to the efficiency of NoBos or RBs, while this percentage was only 14% in the case of NSAs. If the general picture depicts a rather balanced perception of the operation of the national bodies, the situation seems to be very different between Member States and single institutions. As stated by one respondent:

“this reflects the resources available to each institution, the competence of their staff, the degree of independence of the institution of both Government and of

industry interests and the ability of the institution to function effectively and efficiently and to avoid an excessively bureaucratic approach”.

3.15 Another stakeholder claimed that the approach of the different institutions is not "harmonised" while "all these institutions should work, be properly staffed and operate to a common harmonised set of principles in line with the legal framework”.

3.16 The same stakeholder also noted that:

- This is reflected in the different costs that NSAs charge for their work: for example Germany is claimed to be very expensive as the cost of NSA work for safety certifications vary between €20,000 and €100,000 (varying according to the final hours charged to the procedure by NSA staff). While in France the NSA does not charge for the safety certificate. Another reported example is the train driver licence: the German NSA charges are high for this, while in other countries the NSA does not charge any fee (UK) or very low fees for this (CZ).
- Regulatory Bodies can carry out their work with too much bureaucracy, and act “under the influence of public dominant companies”.
- The German NSA worked in a bureaucratic manner, often entering into activities regarding the competence of other organizations (RBs and IMs). They cited examples of this where the German NSA enters into the specifics of the manner in which certain equipment on rolling stock should be handled. on the handling of the sanding device for single driving locos, as well as what to do with the handles of braking valves on a special type of freight wagon.

3.17 However, this stakeholder recognized that on some occasions the German NSA works more efficiently than others, quoting the fact that while in France the safety certificate is restricted to dedicated lines and types of freight carried goods, in Germany the safety certificate is (normally) for the whole country and for freight traffic.

Key issues and evidence for the existence of this problem

NSA activities

3.18 In relation to the issuing of safety certificates, interviewed stakeholders expressed great concern regarding the operation of the German NSA (EBA). As at December 1st 2010, the EBA had handled 114 of the 348 requests it had received, while the deadline for processing them was the end of 2010. Due to this delay a transitional arrangement had to be introduced that allowed RUs to continue their operations if they had requested the new safety certificate before January 1st 2011.

3.19 Representatives of RUs reported that the procedure was chaotic. For a period of three years, EBA did not manage to clarify requirements. Although EBA published a guideline on the application process, this was perceived as too functional and not meeting the needs of the RUs. In addition RUs complained that the issuing procedure of EBA was too slow and did not allow for any feedback to the RUs, resulting in no time allowed for RUs to make corrections to their applications within the process where necessary. This has been further supported by correspondence provided by a particular RU. RUs also reported that the

- approach used by EBA was excessively technical compared with the process-based approach suggested by the European railway safety directive.
- 3.20 Another issue of concern pointed out by RUs was the fact that, differently from other Member States, in Germany they are required to pay the EBA for the issuing process, according to the workload involved. Some RUs had to invest two man-years and pay up to €70,000 to the EBA for administrative and advisory costs. Representatives of RUs reported that these costs created a high market entry barrier, for small RUs in particular.
- 3.21 Evidence from different sources support the argument that the process for granting safety certificates and vehicle authorisation is time-consuming and expensive. Many stakeholders have experienced delays in the decision taken by NSAs, often as a result of NSAs adding requests for information in order to extend the time period for issuing a decision, without breaching the legal timing of the process.
- 3.22 Some freight operators complained about NSAs making excessive requests for test runs and additional documentation, which are onerous for RUs. This is common in procedures for placing in service authorisations, where rolling stock is already in service in another Member State. Acceptance by the NSA of the Part A certificate is perceived by operators as less smooth than it should be. Some NSAs claim that delays can be caused by external factors, claiming, for example, that manufacturers falsely declare rolling stock as compatible. More cooperation between manufacturers (and applicants in general) and the NSA will likely improve the efficiency of the mutual recognition process.
- 3.23 A common problem experienced by NSAs is understaffing which is discussed above. A further problem identified was poor command of English language by senior staff in railway institutions, including NSAs. This is not per se a problem as EU legislation is translated into all languages of Member States (although on some occasions with errors), but it can be a problem given that the working language of the European Railway Agency is English and that all documentation and work is carried out primarily in English which can lead to misunderstandings or misinterpretation of the goal of Agency activities.
- 3.24 Some RUs have also expressed concern that NSAs may be discriminating against new entrants, for example, in terms of the technical standards imposed by the NSA through national rules, which are usually those already adopted by the incumbent. It should be noted though that we have not been told this in relation to a large number of NSAs and only relates to a small subset. In general, the attitude of NSAs towards RUs is seen by many operators as rather bureaucratic and insufficiently attentive to market needs. More cooperation between NSAs and RUs is generally sought by operators in order to increase the competitiveness of the whole sector in terms of modal share (especially freight). Related to this is the view of some operators that there is no possibility to appeal against perceived misconducts (from the NSA), and are inclined to favour a European appeal body, in case of discrimination.
- 3.25 The case studies indicated several issues related to the length and cost of the authorisation of a vehicle design type (henceforward “type approval” authorisation) and, in some cases, pointed out the presence of discriminating practices.
- 3.26 For example in France we were advised of major delays in gaining authorisation of a new fleet of vehicles of a new type by two distinct freight railway undertakings. In one case

the delay was due to issues regarding platform gauging which were found not to be compliant with TSIs (despite being declared to be compliant). In another case the delay was mainly attributable to discriminating practices undertaken by RFF. The RU took the specific case to court, won and managed to get the necessary approvals from RFF within ten days (after waiting for two years and spending between €5 and 10 million). Furthermore, some interviewed stakeholders expressed concern in relation to the authorisation of placing into service. For example Trenitalia has stated that it cost approximately €1 million to gain approval for operating open-access international services in France prior to the current regime.

- 3.27 In Italy, NTV recently obtained type approval authorisation for its passenger rolling stock which entered into service in April 2012, but the whole authorisation process took over 3 years (but was done in parallel with the construction of the trains). Following initial testing, NTV asked ANSF to start carrying out authorisation testing for its new rolling stock. ANSF instructed RFI to provide NTV with appropriate paths to carry out its testing programme. After a number of attempts at arranging these paths, RFI formally refused to allow testing on its network. Subsequently NTV asked the Ministry of Transport to intervene which led to the Ministry directing RFI to allow NTV to reserve and use paths on its network. One stakeholder mentioned that the cost of leasing its locomotives in Italy is high as a result of the authorisation costs that manufacturers are required to bear. This was confirmed in the recent authorisation workshop, where evidence was provided that the re-authorisation of rolling stock to meet national requirements in Italy, only for ERTMS components, cost €8 million for a fleet of locomotives. This increases the capital cost to the manufacturer for the Italian variant by about 5%, leading to a similar increase in lease costs.
- 3.28 There is a shared view from private RUs that the Italian NSA (ANSF) is still gaining experience with its activities and is currently rather slow in its processes - in particular in relation to obtaining a safety certificate or to complete authorisation of rolling stock is reportedly long and difficult. The Freight Leaders Council (2010) maintains the current position of the Italian rail sector does not yet sufficiently allow for profitable entry by new entrants. This is due to rigidities, uncertainties and the perception of biased behaviour of the IM and other institutions in favour of the incumbent RU. Moreover, ANSF tends to be reluctant to accept foreign certificates and authorisations, and RUs are usually asked to undergo further assessment which takes time and incurs additional costs.
- 3.29 In Hungary the RUs complained that the NSAs requirements and documentation is not always clear and that there are several iterative steps caused by lack of clarity and different interpretation of rules. The Hungarian NSA, NKH, claims that in some cases, delays are due to the manufacturers declaring rolling stock compatible with their national system when this is has turned out to be not the case. They reported cases in which rolling stock indicated by the manufacturer as completely compatible with the Hungarian infrastructure was in fact fitted with different components (e.g. bogies, locks, brakes).
- 3.30 Poland had probably the most well-known issue with regard to the authorisation of rolling stock. Freightliner PL, a subsidiary of the British-based Freightliner Group, wanted to enter the Polish market using spare Class 66 locomotives from their UK operations. UTK refused to accept the locomotives, with Freightliner resorting to a complaint to the

European Commission. The European Commission, based on a technical opinion from ERA, issued a decision, instructing UTK to accept the locomotives.

- 3.31 In Germany the rolling stock authorisation process is becoming an increasing problem for stakeholders, which, according to RUs and producers has led to more time-consuming and demanding processes. According to the 2011 Rail Liberalisation Index study, rolling stock authorisation fees can add up to €120,000 per type authorisation in Germany. It should be noted that these costs apply to issuing authorisations only and do not include costs for surveys, trials, tests and personnel. After the submission of all necessary documents, EBA issues authorisations for placing in service within 120 days. We were not provided with information on average approval times within this period.
- 3.32 Rolling stock which has recently suffered from problems with authorisation procedures in Germany include: E-Talent 2 from Bombardier, Flirt from Stadler and Coradia Lint/Continental from Alstom.
- 3.33 At the end of October 2010, 76 units of E-Talent 2 were due to start operations on a number of DB Regio franchises. However, EBA only issued placing in service authorisations for E-Talent 2 in October 2011, and only for two franchises. The reason for the delay in the authorisation process was due to various factors, and thus overall responsibility is not clear. Certain responsibility rests with EBA as technical requirements and legal requirements were changed during the authorisation process of the Talent 2 trains.
- 3.34 Changes in the authorisation process after the design phase of the train can lead to non-calculable problems for both manufacturers and train operators. Manufacturers have to handle construction changes which frequently require new authorisations for sub-systems already authorised. As a result, operators cannot plan with certainty when new trains can commence operations.
- 3.35 However, in the German example, our understanding is that the delivered trains had software issues which affected safety elements such as brakes, traction drive and train protection systems that had not been fully addressed before the authorisation process. As a result, Bombardier was not able to provide all necessary safety-evidence before October 2011.
- 3.36 Stakeholders have mentioned that the approach adopted by EBA is very judicial in nature, and not sufficiently pragmatic in focusing on whether technical details can be overcome in a simple manner. In addition, many stakeholders mentioned that they have not appealed the decisions of EBA for fear of future problems with authorisations.
- 3.37 We have been informed that there are substantial costs and timescales also tied to the additional authorisation of vehicles in Germany that have already been authorised in other Member States as a result of the authorisations not being accepted automatically. This is even the case for some elements that are common across Member States and have been agreed by those Member States as being the same.
- 3.38 Nevertheless, it must be pointed out that we found no evidence of discrimination against new entrants by EBA: it acts independently and all RUs are subject to the same difficulties and delays. The problem is that while a large historic operator can manage these delays with minimal difficulties where it has a large back-up fleet of rolling stock, this is not the case for a new entrant. For example, in the case of Bayerische Oberlandbahn, operations

of their new franchise started partially with buses due to the delay in the authorisation process of ordered rolling stock. These problems can have strong negative impacts on RUs given the expectations of politicians and passengers are especially high in the initial days and weeks of operation. (Holzhey et al. 2011)

- 3.39 To address the emerging problems with train authorisation in Germany, BMVBS launched a joint working group including representatives from industry, operators and authorities. The results of this working group were published in the "Manual on Rolling Stock", a publication aimed at clarifying procedures, roles, obligations and responsibilities of the participating parties in the authorisation process. Although the manual is not fully compliant with EU legislation (in terms of the number of actors involved and their specific roles), this publication has increased the transparency of information that is needed to ensure authorisations, but has not yet reduced time and costs (although it is still early to say what impact this will have). Some stakeholders have mentioned that the new processes have meant an average delay of one year to authorisations and a consequent increase in costs.
- 3.40 The 2011 ERA Interoperability report indicates that most NSAs charge a fee for placing in service authorisations, and that the number of the NSAs which do not charge fees is decreasing. In 2010 seven NSAs provided their service free of charge, compared with ten in 2008. Different NSAs use different charging methods. Some charge according to the workload on an hourly rate (e.g. Belgium, Germany, France, Poland and Finland) with the rate varying from €100 to 125 per person-hour. Others such as Bulgaria, Czech Republic, Hungary, Portugal, Austria, Romania, and Portugal apply fixed rates which are usually differentiated by subsystem. Slovenia applies a combined fixed rate plus hour-based rate.
- 3.41 Significant variation is present in the average time for the authorisation procedure, which varies across countries and types of rolling stock. The average time for new freight wagon authorisations, as declared by NSAs (and indicated in the 2011 ERA Interoperability report) are:
- 10 to 20 days in the UK;
 - 30 days in Austria, Belgium, Bulgaria, Denmark, Estonia, Romania, Slovenia and Slovakia;
 - from 50 to 60 days in Finland, France, Germany, Lithuania, and Poland; and
 - 90 days or more in Czech Republic, Spain.
- 3.42 In contrast, the case studies indicated very fast procedures in Hungary (within a few days). According to the same Interoperability report, the high performance of the UK is considered to be possible via the highly proactive policy of the NSA of providing early pre-engagement with applicants. Problems are thus identified and solved at an early stage. Further evidence collected during this IA study confirms that the UK NSA has not delayed any projects, and has been helpful and supportive of applicants.

Regulatory Body activities⁵

- 3.43 In some cases, the actual independence of Regulatory Bodies is questionable. For instance, the independence of a RB may be compromised where it is part of a government department that also has a direct interest in an IM or RU, through the government's role as primary or sole shareholder in the entity concerned.
- 3.44 There have been cases of infringement procedures initiated by the European Commission against Member States, which highlighted the ways in which independent regulatory decision making can be undermined. In a number of cases, these proceedings have led to the establishment of a new RB, distinct from government and with the necessary powers and resources. The majority of infringement cases are still outstanding though, but should in any case fall away if Member States adopt and transpose the requirements of the Rail Recast correctly.
- 3.45 Moreover, institutional and legal independence alone may not be sufficient to ensure the functional independence of an RB. Where, for example, RBs are not adequately resourced, they are unlikely to be able to effectively respond to issues raised by train operators and others. The speed of the regulatory response can be critical in a constantly changing market environment and where operators require rapid decisions in order to exploit emerging commercial opportunities. Some freight operators expressed perplexities around the effectiveness of their national RB as an appeal body for unfair treatment. In particular when the RB is part of the same body that carries out the duties of the National Safety Authority, or when the RB is part of a Ministry with shareholder interests in the incumbent railway company.
- 3.46 The Commission proposes to change some elements of the Directives ruling the role of Regulatory Bodies in the Rail Recast. The most important change relates to the independence of the Regulatory Body from the Ministry, reducing the effects of some of the problems identified above. Some of the changes identified within the Rail Recast provide the RB with stronger powers. It has been argued that these extra powers mean that the RBs will be more involved in the planning and operation of the railways, and in particular in the functions of the IM. However, while it is clear that these extra powers will require greater administrative capacity, they do not appear to extend the competencies of RBs unduly. In overseeing the development of a competitive railway market, the RB, like any market regulator, must be in a position to investigate the commercial and technical issues relating to new entry, and form judgements about the terms on which capacity is made available to providers of competing services.

Notified Body activities

- 3.47 The evidence collected suggests that the quality of work carried out by Notified Bodies varies significantly and some need to improve levels of competence and rigour, especially with regard to TSI standards for interoperability.
- 3.48 One stakeholder pointed out that:

⁵ We have kept within the analysis of this chapter discussions relating to the problems with Regulatory Bodies, although, as mentioned later in the report (in Chapter 5), these are outside the scope of the analysis of this study.

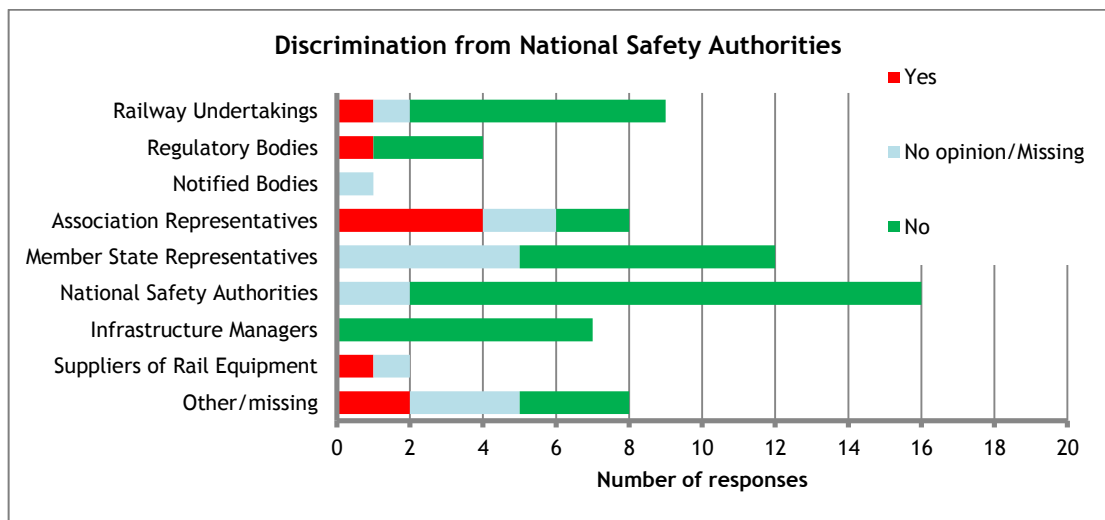
“the entities working in the field of conformity assessment never received any support from the Member State in order to prepare for the role of NoBo or DeBo”. According to this stakeholder it is “crucial to establish common accreditation programs in terms of specific TSIs for Directive 2008/57/EC as the current system disturbs competition and makes possible for incompetent entities to function in the market”.

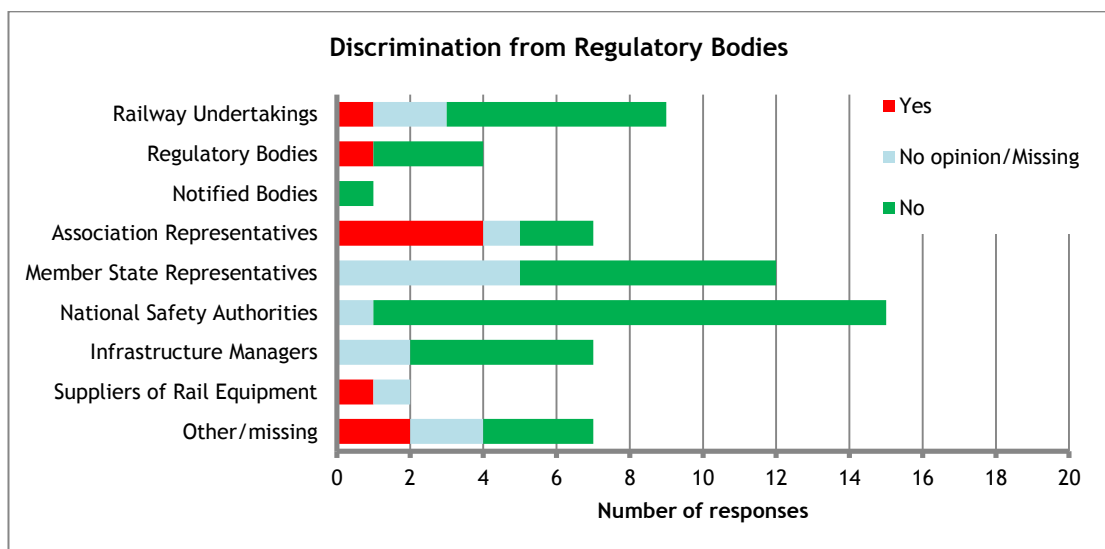
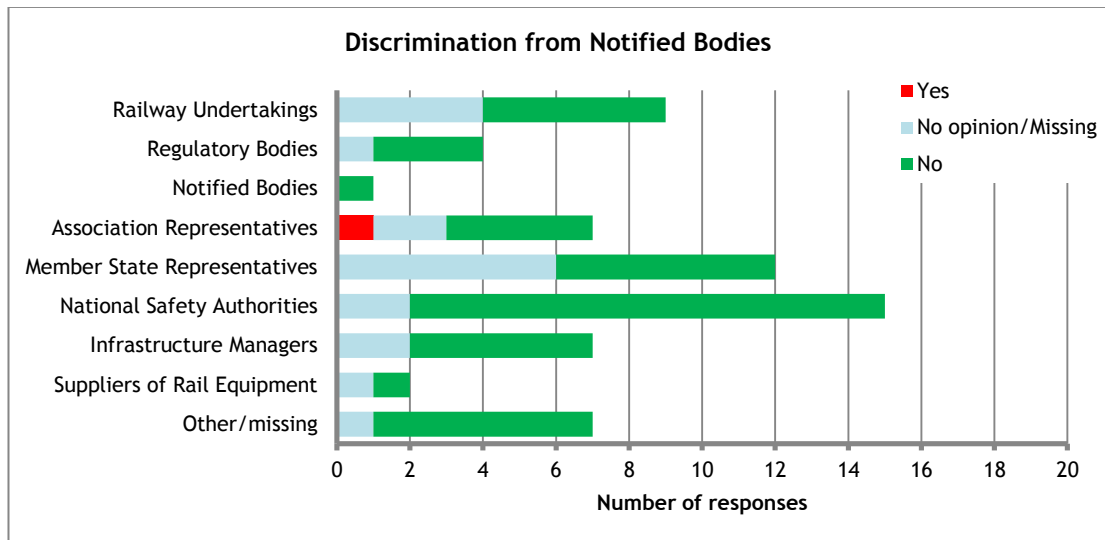
Problem driver 2 - Discrimination of new entrants

3.49 Stakeholders were generally keen on providing opinions on the potential discrimination of new entrants by National Bodies. The response rate to the stakeholder survey on this issue was very high for NSAs, NoBos and RBs, although a significant share of respondents preferred not to indicate a clear opinion on this (18%, 28% and 21% in the case of NSAs, NoBos and RBs respectively). Results of the stakeholder survey on the question “Are you aware of any of the following institutions discriminating against new entrants?” are shown in the figure below.

3.50 In relation to NSAs, 83% indicated that they are not aware of any discrimination. The percentage remains high (76%) even when responses from NSAs are excluded. However, it must be noted that there were also some negative views, in particular from railway undertakings and their associations, and from suppliers of rail equipment. These latter stakeholders all have to deal with NSAs with regard to authorisations and safety certification. The fact that 50% of the association representatives felt that there is discrimination from NSAs confirms that this issue is a concern for operators.

FIGURE 3.3 DISCRIMINATION FROM NATIONAL BODIES





3.51 Similarly in the case for RBs, 82% of those expressing a view stated that Regulatory Bodies were not engaging in discriminatory practices. Among different respondents, railway undertakings and their representatives and equipment supplier gave the least positive response.

3.52 By contrast, although many respondents found it difficult to express a view on NoBos, their operation seems to be perceived as less discriminating against new entrants. All but one of those that provided an opinion (the association representatives) stated that they are not aware of any discrimination from the Notified Bodies.

Key issues and evidence for the existence of this problem

3.53 It is known that discrimination of new entrants generally relates to access to the infrastructure due to anti-competitive behaviour of IMs, which are often linked to the incumbent RUs and may tend to disfavour new operators in the allocation of train paths,

charging or use of rail related services. In 2010⁶ the EC proposal for the Rail Recast reported that “*rail- related services [...] are often owned and operated by the incumbent rail undertakings*” and “*discrimination can still be found in the conditions of access to the infrastructure (path allocation and charging)*”.

- 3.54 New entrants may face discrimination from NSAs when applying for safety certificate or during authorisation processes. In 2006, EIM⁷ recognised a series of problem e legal and technical obstacles that that had not been solved yet by the implementation of the First Railway Package; these included:
- Safety certificate: *no harmonised and transparent methods of delivery in order to avoid arbitrary decisions, lengthy procedures and discrimination*; and
 - Vehicle Authorisation: *arbitrary decisions and discrimination due to lack of harmonised and transparent methods of delivery*.
- 3.55 Evidence of these problems emerged in some of the interviews made with new freight operators, as reported in our case studies. In Hungary, Italy and Poland (cf. related case studies), the private operators interviewed mentioned that authorisation of locomotives (especially in the case of type approval) is a long and onerous process; the attitude of NSAs in these countries is commonly seen by operators as rather bureaucratic and insufficiently attentive to the market needs. In particular, operators reported cases in which the timing set by law for granting an authorisation is exceeded on the grounds the documentation provided by applicants was of incomplete; this was often seen as an expedient to prolong the process.
- 3.56 In addition, during our interviews with operators, some NSAs have been said to adopt and impose on all operators the technical standard in use within the incumbent, to fail to consult all RUs when making key decisions and to lack independency. This is particularly the case of NSAs that are part of wider transport or railway authorities, which also include the RB or release licences. In this circumstances, appealing against perceived misconducts and discriminations can be seen as difficult and ineffective.
- 3.57 The previous evidence is confirmed by the claims raised by ERFA (European Rail Freight Association) in an open letter to the UK Parliament concerning the consultation process that preceded the Recast of the First Railway Directive⁸. In this letter the Association reported that “in some Member States, safety certification is abused as an instrument to foreclose the national market” - quoting the Poland Class 66 example described in the case study - and that often “there is no appeal body to prevent Member States and their public authorities to abuse safety for anti-competitive purposes”. According to ERFA “in some Member States, the national flag carrier is even tolerated to operate without a valid safety certificate (eg Hungary) whilst new entrants are forced to go through lengthy and unclear safety certification processes”. Another issue claimed by this organisation is “the restriction of the safety certification for RUs to single or a restricted number of lines of the network (as it is the case with Belgium or France)”.

⁶ Commission Proposal for a Directive of the European Parliament and of the Council establishing a single European railway area (Recast). SEC(2010) 1043SEC(2010) 1042 Explanatory memorandum context of the Proposal

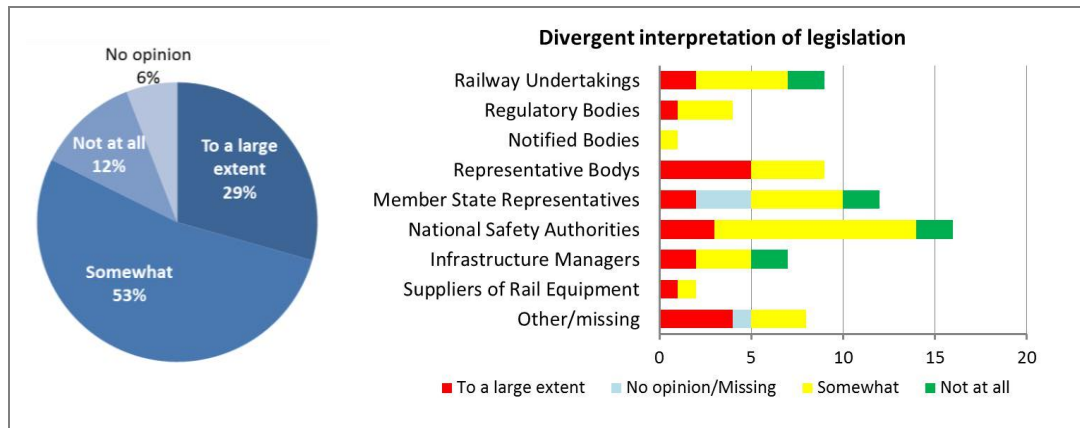
⁷ EIM, ERFA, ERFCP (2006), *The First EU Railway Package. A joint review of EIM, ERFA, ERFCP*. Brussels

⁸ Available at: <http://www.publications.parliament.uk/pa/ld200809/ldselect/ldcom/90/9032305.htm>

Problem driver 3 - Divergent interpretation of EU legislation

3.58 Results of the stakeholder survey on the question “To what extent do you believe that there is divergent interpretation of EU railway legislation?” are shown in Figure 3.4. Stakeholders generally agreed that there is a divergent interpretation of railway legislation by the Member States. 53% indicated that the interpretation is somewhat divergent, while 29% indicated that the interpretation is to a large extent divergent. Only 12% of those stating a view stated that there was no divergent interpretation.

FIGURE 3.4 EXISTENCE OF DIVERGENT INTERPRETATION OF EU LEGISLATION

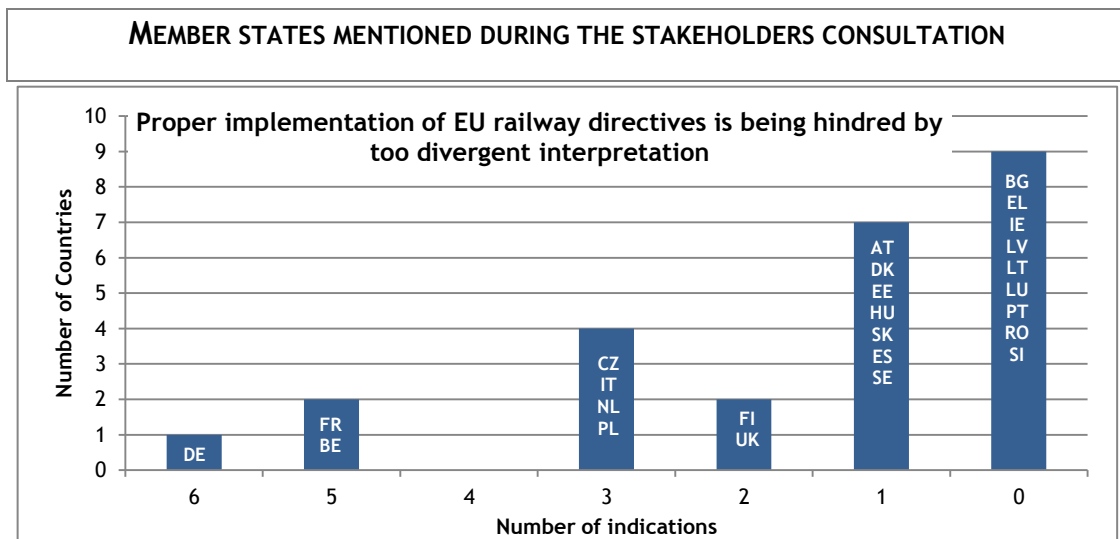


3.59 According to the majority of respondents (62% of those expressing a view on this point) the divergent interpretation of EU railway Directives hinders their proper implementation. The situation seems to be critical particularly in:

- Germany, which was mentioned six times in relation to this aspect, and
- France and Belgium, which were mentioned five times each.

3.60 To a lesser extent, the surveys identified the Czech Republic, Italy, the Netherlands and Poland (mentioned three times each) and Finland and the United Kingdom (mentioned two times each) as countries where this problem is evident (see Figure 3.5 below).

FIGURE 3.5 DIVERGENT INTERPRETATION OF EU LEGISLATION AFFECTING PROPER IMPLEMENTATION OF EU RAILWAY DIRECTIVES



3.61 Further evidence is provided in the case studies. Interviewed stakeholders were of the opinion that the Polish legislative system is not well suited to implementing many EU laws (Directives) into Polish law. A system exists for checking whether draft legislation conforms to EU law, but it has been alleged that this is not appropriate, as rail-related Polish legislation does not always reflect the EU law it is supposed to implement in either letter or spirit. Similar considerations were made by the stakeholders in Hungary, where representatives of both the industry and the institutions indicated significant problems in translating the EU rules into the domestic legal framework, often with different interpretation of the same norm given by different institution, or the original spirit of the rule lost in translation; the problem was partly attributed to insufficient command of English by key persons in the institutions and legal services.

3.62 One respondent to the on-line survey indicated a number of existing examples of different interpretation of railway safety legislation. Two examples previously mentioned are the different fees charged by NSAs for safety certificates and the fact that in some countries' safety certificates are valid on the whole network while in others they are provided specifically for dedicated lines or part of the network. Other examples provided related to the decision making processes of NSAs which are claimed to vary significantly across Member States.

3.63 The different interpretation of legislation can negatively affect the performance of the rail sector by making it more difficult and costly for RUs to enter into new markets. Another drawback is the fact that in some cases a significant amount of public and private human and financial resources are dedicated to activities that could be simplified if a more homogenous interpretation of EU legislation was implemented.

Key issues and evidence for the existence of this problem

3.64 In addition to the evidence gathered in the case studies and described in the sections above, further confirmation that there is an issue regarding the interpretation and

implementation of the EU legislation can be found in the infringement proceedings launched by the EC against MSs.

- 3.65 In 2009, the EC⁹ considered that the Regulatory Bodies set up by individual countries were not adequate to the role assigned, and intervened by means of infringement procedures against the majority of MS. The most common faults highlighted were:
- Insufficient independence of RB from the (incumbent) RU and/or the IM;
 - Insufficient power of RB to monitor competition in the rail service market and/or insufficient enforcing powers;
 - The RB being part of or subject to the same ministry that contributes to control the state owned RU.
- 3.66 Amendments were subsequently made by some MSs following the beginning of the infringement process, with the setting up of more independent and powerful authorities (e.g. ARAF in France, RRA in Greece). The EC targeted a wide range of faults in the implementation of the Railway Packages at national level; the Commission webpage¹⁰ links to the initiatives taken against MSs year by year.
- 3.67 The divergent and incomplete implementation of EU rules leaves room for misinterpretation of the spirit of the common legislative framework, possibly leading to conducts that are in breach of the EU legislator's intent.
- 3.68 The Commission also recognises the problem as still actual in its proposal¹¹ to recast the First Railway Package which aims, inter alia, at "*clarifying existing provisions (solving in particular problems of diverging interpretations by Member States)*"
- 3.69 A parallel can be made with the air transport sector with Regulation 261/2004 on air passenger rights. In 2011, after more than 6 years since the entry into force of the Regulation, the Commission issued a Communication¹² on the application of the Regulation where it identified a number of ongoing issues, including inconsistencies in the interpretation of the Regulation, inconsistent and ineffective enforcement. This gives an idea of the difficulty of achieving a common interpretation of EU norms across MSs, even in the case of a single regulation.

Problem driver 4 - Legacy of divergent national rail systems

- 3.70 As indicated in paragraph 3.3 above, the only parts of this problem that fall within the scope of this assessment are those aspects relating to national rules. We did not ask a specific question on the impact of national rules within the survey, but we received a number of comments on the matter within the follow-up interviews. Stakeholders mentioned that the existence and persistence of national rules is the basis for the problems being encountered nationally. The NSAs are clearly bound by these rules which can complicate the authorisation process and lengthen the timescales.

⁹ COM(2009)676.

¹⁰ http://ec.europa.eu/transport/infringements/proceedings/rail_en.htm

¹¹ See note 6

¹² COM(2011) 174 final

- 3.71 Recital 21 of Directive 2008/57/EC states that “steps should be taken to avoid a situation where Member States adopt new national rules or undertake projects that increase the diversity of the present system.” However, experience demonstrates that national rules still represent an obstacle to interoperability as well as a complication for RUs. The problem was discussed by Rail Forum Europe’s in its event¹³ in July 2011, where policy action was called in order to enforce cross-acceptance of national rules with the final objective to eliminate them to the benefit of European rules.
- 3.72 As mentioned above, we have found evidence of this problem in some of our case study interviews: the persistence or even proliferation of national rules appear to be a case especially in Germany and Italy.
- 3.73 In Germany, evidence has been gathered from stakeholders that there is persistence of national rules, which contribute to increase the costs of the authorisation process. In addition, some stakeholders complained about the absence of an updated and comprehensive list of national rules, as this contributes to delay the authorisation processes.
- 3.74 In Italy, new national rules have been introduced following the Viareggio accident in 2009, as the NSA introduced tougher rules regarding inspections for the transport of dangerous goods such as requiring extraordinary checks on freight wagons. There was resistance and appeals against these new rules, as detailed in the related case study.
- 3.75 Also in Poland, national technical and safety rules were found to occasionally pose problems in terms of transparency and/or discrimination, although the main problem in this case is the poor transposition of the EU rules which often leads to national laws being conflicting or inconsistent.
- 3.76 A measure of the amount of national rules is given by the Notif-IT database, which reports the notification of national railway safety and technical rules issued by MSs. The database presents over 430 national rules in force (excluding those amended or revoked in part) regarding rail safety. Conversely, there are no rules in the database concerning technical or interoperability aspects.

Key issues and evidence for the existence of this problem

- 3.77 There are a number of issues that have been identified. These include:
- **Lack of transparency** - Often national rules are not explicitly documented or if they are they are spread across a number of different documentation areas. The Agency has encouraged progress in this area by instigating National Reference Documents but currently these only encompass vehicle design rules.
 - **Incumbent knowledge advantage** - national rules are often implicit in national incumbent operating practices. The result can be that new entrants are not aware of all relevant rules before they beginning vehicle authorisation
 - **Unnecessary national rules** - as covered in chapter 2 a key issue is the existence of rules which add unnecessarily to the burden of authorisation. The Agency is facilitating substantial progress in this area through the work of the Cross Acceptance Unit in establishing effective equivalence between national rules where possible. However,

¹³ Rail Forum Europe’s 2nd event - Building a single European market for railway rolling stock, 5 July 2011, Strasbourg

this is, of necessity, work in progress and dependent on voluntary agreements between the MS.

Key findings on the relevance of problem drivers

- 3.78 The analysis undertaken provides evidence that confirms that the identified problem drivers are relevant and are affecting the performance of the rail sector. However, some distinctions emerged among national institutions. In particular, we have not identified sufficient evidence to confirm the inefficient functioning of Notified Bodies or the presence of discriminating practices from their side.
- 3.79 The drivers which are a major concern of stakeholders seem to be the inefficient functioning of national institutions and the presence of divergent interpretation of EU legislation. Almost 80% provided an opinion, with the majority showing dissatisfaction with the current situation.
- 3.80 By contrast, a minority of the interviewed stakeholders complained about the presence of discriminatory practices from National Safety Authorities or Regulatory Bodies. Claims by RUs and suppliers of rail equipment of the existence of discriminating practices suggests that this is an issue and may be constraining development of the sector.
- 3.81 The problem drivers are also closely connected. Several stakeholders indicated the inefficient functioning of national institutions and the different interpretation of EU legislation (namely the differences in the fees they charge, the different procedures they adopt and the insufficient independence of some NSAs and RBs) as main causes of discrimination against new entrants.
- 3.82 Finally, the problem drivers are influenced by a number of underlying causes (problem elements) that, to a varying extent, contribute to the poor performance of the rail sector. These elements correspond to the issues that emerged from the analysis of the current situation presented in the previous chapter. The following section discusses the relevance of the problem elements on the basis of the views expressed by stakeholders during the consultation process.

Problem Elements

- 3.83 The issues discussed above can be synthesized into the following elements:
- NSAs:
 - Deficit/lack of sufficient (financial and human) resources in the case of some NSAs to effectively perform their tasks;
 - Insufficient independence of the NSAs from the infrastructure managers, incumbent Rail Undertaking and/or the ministry;
 - Granting of safety certificates by the NSAs to rail operators and the authorisations of placing into service of rail systems and vehicles is too slow in some cases; and
 - Reluctance of some NSAs to accept safety certificates and authorisations of placing in service of railway vehicles and subsystems granted by other NSAs.
 - Regulatory Bodies:

- Deficit/lack of sufficient (financial and human) resources in the case of some Regulatory Bodies to effectively perform their tasks; and
 - Insufficient independence of the Regulatory Bodies from the infrastructure managers, incumbent Railway Undertaking and/or the ministry.
- Notified Bodies:
- Deficit/lack of sufficient (financial and human) resources in case of some Notified Bodies to effectively perform their task; and
 - Insufficient independence of the Notified Bodies from the infrastructure managers, Railway Undertakings, the ministry or other actors.
- Other elements:
- The level of monitoring and control of implementation of the interoperability and safety legislation by Member States is not sufficient;
 - National technical and safety rules sometimes pose transparency and/or discrimination problems; and
 - Insufficient level of dissemination of railway-related information and training.
- 3.84 As further discussed below, in some cases the previous elements can be linked together, as shown in the figure below. In particular:
- Some NSAs could be slow in the granting of safety certificates or of authorisation of placing into service because of:
- a lack of sufficient human or financial resources to effectively perform their tasks; and
 - an insufficient level of dissemination of railway-related information and training.
- Some NSAs/RBs might be reluctant to accept certificates and authorisations released by other national institutions because:
- there is an insufficient level of dissemination of railway-related information and training; and
 - they tend to define and implement national rules built out of the past experience gained in their own country, an attitude that sometimes can also pose transparency and/or discrimination problems for new entrants from other EU Member States.
- 3.85 In addition to this, there is an insufficient level of monitoring and control of implementation of the EU interoperability and safety legislation which affects the manner in which the national institutions are structured and operate and is therefore related to all the problem elements, as illustrated in Figure 3.6 below.

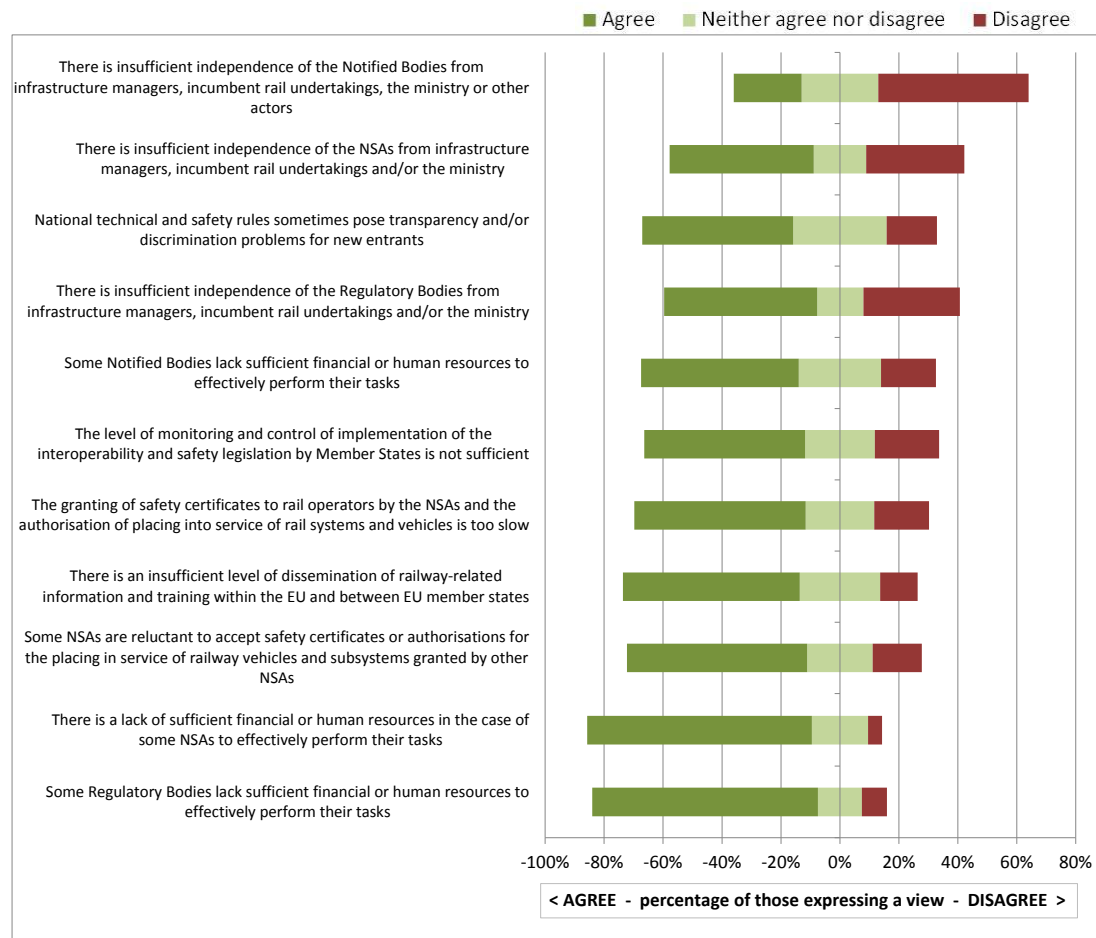
FIGURE 3.6 LINKS BETWEEN PROBLEM ELEMENTS



Relevance of problem elements

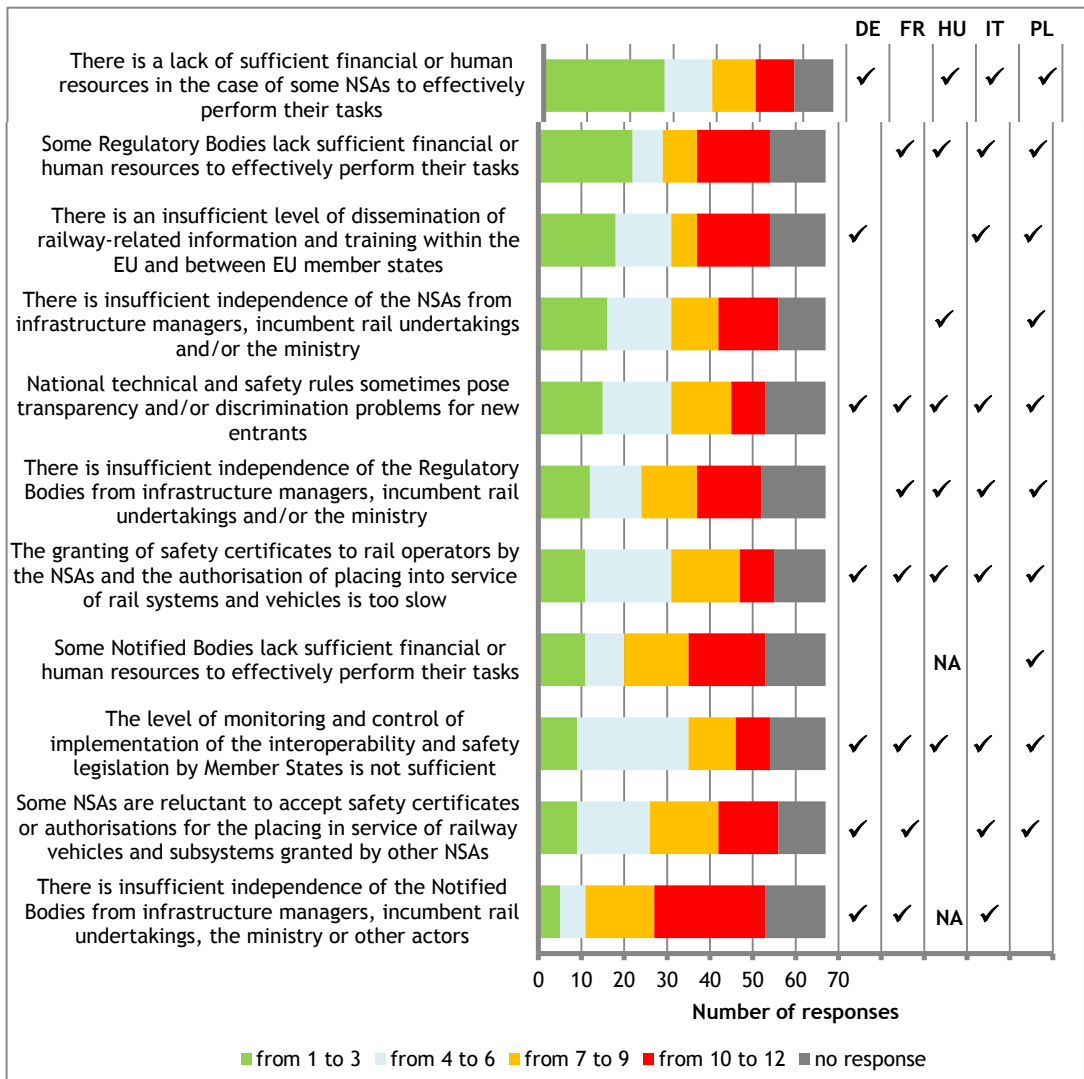
3.86 The perceptions of the interviewed stakeholders on the relevance of the different problem elements is illustrated in Figure 3.7 below.

FIGURE 3.7 RELEVANCE OF PROBLEM ELEMENTS



- 3.87 The analysis indicates that the lack of sufficient financial or human resources in the case of some National Safety Authorities and Regulatory Bodies are issues of concern for the majority stakeholders.
- 3.88 This is confirmed by the evidence collected in the case studies as shown in Figure 3.8 which illustrates the ranking that stakeholders provided in question 6 of the survey on the various problem elements. The colour coding refers to the number of stakeholders that provided each of the rankings, while the ticks indicate whether the problem element has been detected in the case studies undertaken. Problem elements are ordered by importance, that is the first element in the figure is the one that received the most ranking scores between one and three.

FIGURE 3.8 PROBLEM ELEMENTS: STAKEHOLERS RANKING AND EVIDENCE FROM CASE STUDIES



3.89 Two other key elements of concern are the fact that the proper implementation of EU railway directives is hindered by a divergent interpretation of the directives, together with an insufficient level of dissemination of railway-related information and training.

3.90 Quite interestingly, although about 60% of the interviewed stakeholders agreed with the following statements included in the online survey:

- Some NSAs are reluctant to accept safety certificates or authorisations for the placing in service of railway vehicles and subsystems granted by other NSAs and;
- The granting of safety certificates to rail operators by NSAs and the authorisation of placing into service of rail systems and vehicles is too slow

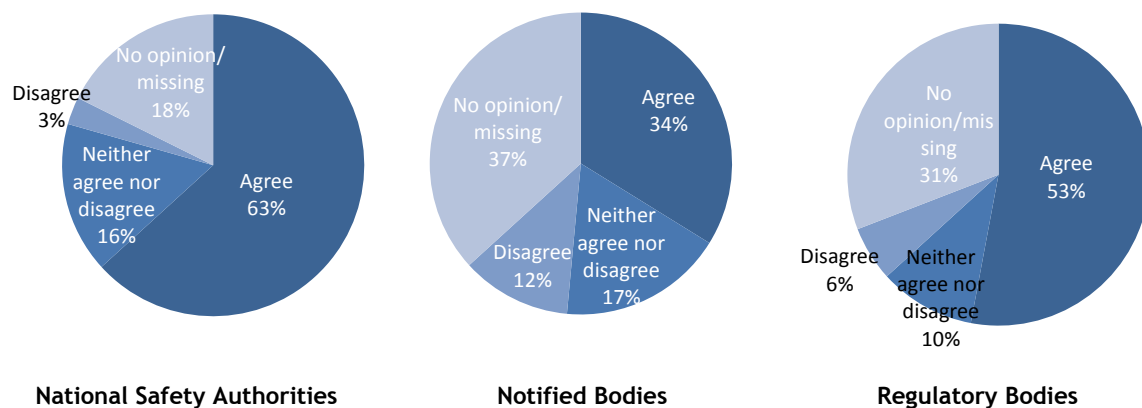
3.91 These issues were not amongst the top three ranked elements.

- 3.92 A possible explanation for the ranking assigned to the second of the two issues above (i.e. slow process in the granting of safety certificates and authorisation of placing into service), which was not included in the first three ranks, could be the fact that this issue might be considered:
- an outcome of the lack of resources/knowledge in NSAs and RBs, which were therefore ranked higher; and/or
 - linked to the insufficient level of dissemination of railway-related information in the EU.
- 3.93 The relevance of this issue is in any case confirmed by the fact that it has been indicated among the top six elements to be addressed (the majority of those expressing a view ranked it among the top six).
- 3.94 Similarly, the low rank assigned to the issue that some NSAs are reluctant to accept safety certificates or authorisations for the placing into service granted by other NSAs could be partially explained by the fact that this might be considered an outcome of the poor level of dissemination of railway-related information and training within the EU and between EU member states. However, it must be noted that in this case respondents seem to show a lower level of concern as most ranked it in the last position.
- 3.95 On the rest of the issues investigated it must be noted that “the level of monitoring and control of implementation of the interoperability and safety legislation by Member States” is considered to be insufficient by 59% of the sample. 35 respondents indicated it in the top six elements of concern.
- 3.96 The proposition that national technical and safety rules sometimes pose transparency and/or discrimination problems for new entrants was supported by just 51% of the sample, which is aligned with the fact that less than half of respondents ranked this among the first six problem elements to address.
- 3.97 The issues related to Notified Bodies show less convincing evidence.
- 53% of the sample agreed with the statement that some NoBos lack sufficient financial or human resources to effectively perform their tasks, but only 20 respondents indicated this among the top 6 matters of concern;
 - Less than a quarter of the sample selected ‘an insufficient independence of Notified Bodies from other national institutions’, and most of the respondents ranked this at the bottom of the list.
- 3.98 Overall, the analysis provided evidence for all the elements to the identified problem drivers, except for those related to the operation of the Notified Bodies.
- 3.99 It is clear that the lack of sufficient (financial and human) resources in the case of some national institutions is an issue of concern for the interviewed stakeholders, followed by the difficulties and differences related to the interpretation, implementation and monitoring of EU legislation in the rail sector.
- 3.100 The following sections discuss further the relevance of the different problem elements, and the way they affect the performance of the rail sector through the impact they have on the problem drivers.

Deficit/lack of sufficient (financial and human) resources in case of some national institutions to effectively perform their tasks

- 3.101 The majority of respondents indicated that there is a lack of sufficient financial or human resources for National Safety Authorities and Regulatory Bodies, while only 34% indicated this as an issue for Notified Bodies.

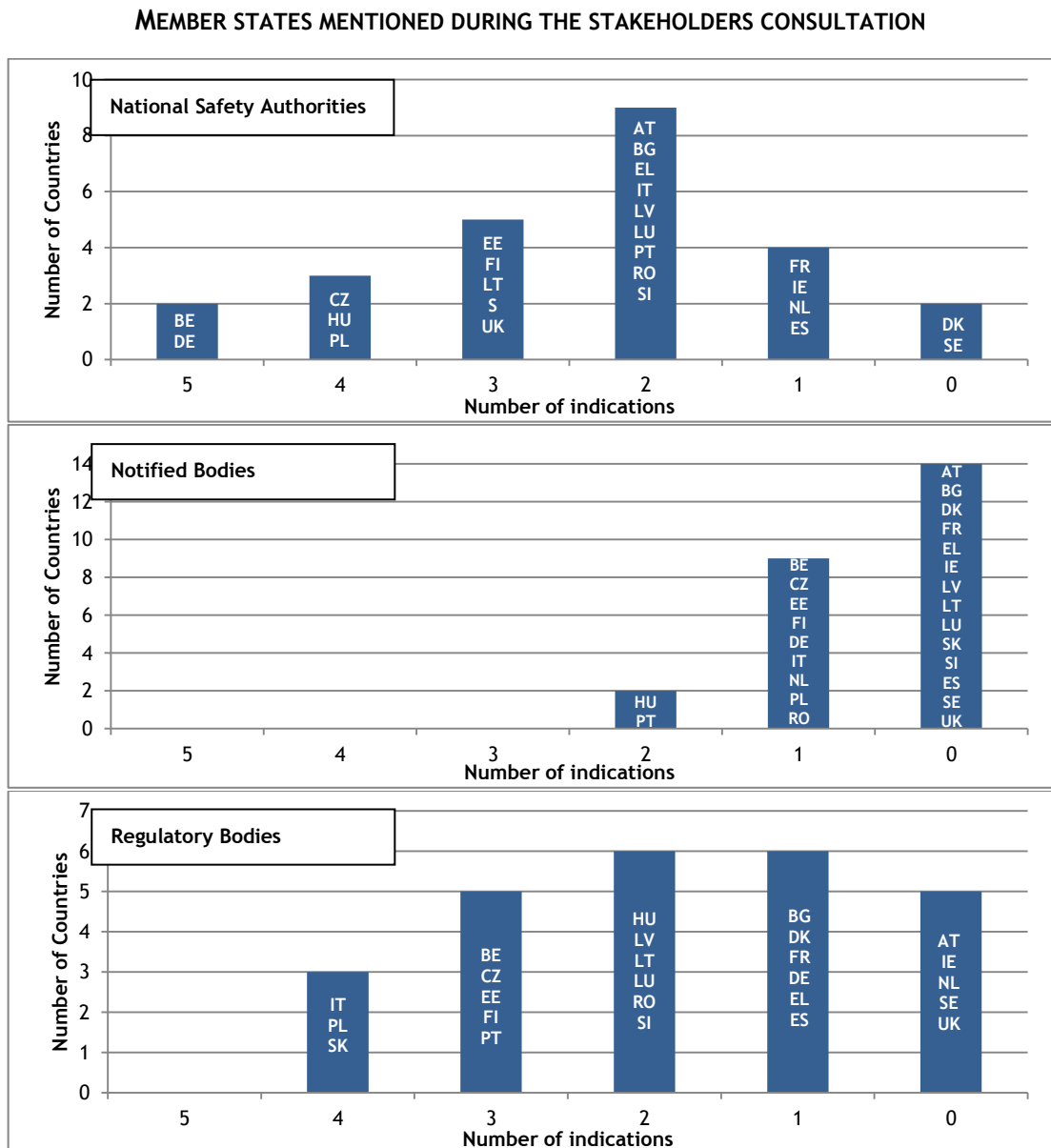
FIGURE 3.9 LACK OF FINANCIAL AND HUMAN RESOURCES OF NATIONAL BODIES: OVERVIEW OF STAKEHOLDERS' RESPONSES



- 3.102 The figure below sets out the number of times that each of these three national institutions in Member States were identified in the survey as lacking sufficient resources in the three institutions.
- 3.103 This has been identified as an issue for NSAs in relation to Germany and Belgium, and in the case of Regulatory Bodies for Italy, Poland and Slovakia. Member States where this issue seems not to apply are Denmark and Sweden in the case of NSAs, and Austria, Ireland, Netherlands, Sweden and United Kingdom in the case of RBs.
- 3.104 These results are generally confirmed by the analysis undertaken in the case studies. In Poland, both the UTK (Rail Transport Office in charge of both RB and NSA responsibilities) and other stakeholders indicated that the UTK is under-resourced financially, which makes the UTK unable to attract enough staff with the right qualifications. As of 23rd January 2012, the UTK website showed 36 job adverts, out of a total of 180 Full Time Equivalent posts, which constitutes 20% of the current workforce.
- 3.105 In Hungary, both the NSA and the private operators interviewed acknowledged the problem of insufficient staff to cope with the workload. Similarly to Poland, the NSA also claimed that the low budget and low salary offer results in scarce capacity to attract new qualified staff. Furthermore, lack of resources has also been identified in relation to the Italian NSA.
- 3.106 In Finland the NSA indicated that both the NSA and the RB have to face a shortage of staff due to resource limits imposed on state administration.
- 3.107 One interviewed NSA complained that they would need to employ more staff because the number of tasks has increased due to the number of new entities that require supervision

by the NSA in the areas of maintenance, training centres and examiners. However, the pressure to decrease staff in the public sector makes it difficult to obtain authorisations to increase staff for these organisations.

FIGURE 3.10 LACK OF FINANCIAL AND HUMAN RESOURCES OF NATIONAL BODIES: SITUATION BY MEMBER STATE



- 3.108 As for the Regulatory bodies, through the case studies we have identified issues of staff resources in Italy and in Poland (confirming the results above), while the German Regulatory body was only identified on one occasion.
- 3.109 The lack of staff and/or financial resources is an element which contributes to poor performance of the rail sector, to the extent it affects the proper implementation of EU legislation in this field and the entrance of new operators. For example, some stakeholders mentioned the lack of personnel at the NSA in Germany as one of the causes

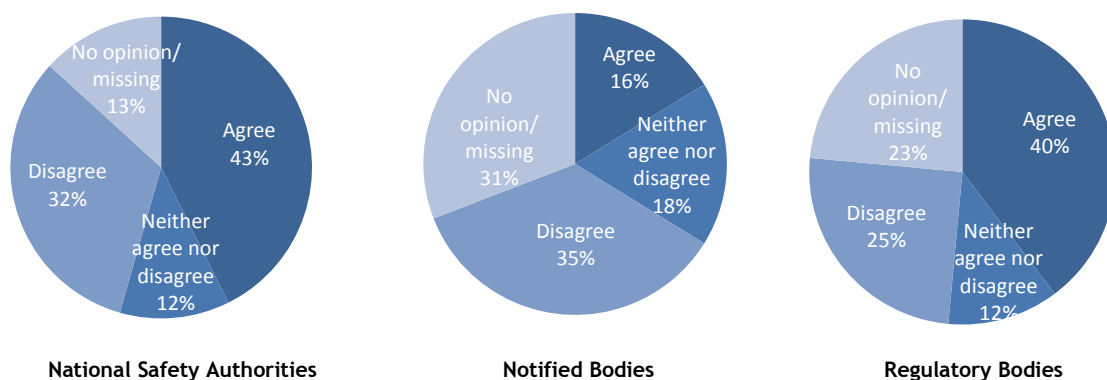
behind the long time required to complete the authorisation process, which in turn increases time and cost for new entrants. Though this view is not shared by all respondents. In contrast, another stakeholder indicated that there are sufficient staff employed at the German NSA and RB, while there is a lack of resources at the branch of the Ministry of Transport dealing with railways, claiming that this causes “a lack of sufficient supervision of the NSA by the Ministry of Transport”.

- 3.110 It would be difficult to state the same in relation to Notified Bodies given the results presented. A small percentage of respondents indicated that there is an issue with the amount of human and financial resources in NoBos but very few respondents actually mentioned countries that face this problem.

Insufficient independence of the national bodies from the infrastructure managers, incumbent rail undertaking and/or the ministry

- 3.111 Overall respondents seemed to be more concerned with the independence of the NSAs and RBs than of NoBos: as shown in Figure 3.11 below only 16% of the sample stated that this is an issue for NoBos compared with 40% for both NSAs and RBs.
- 3.112 RBs in particular appear to be the institution with whom respondents had the greatest concerns regarding insufficient independence. Taking into account just the responses of those expressing a view, 52% of the sample agreed with the fact that independence affects RBs compared with 37% in the case of NSAs.

FIGURE 3.11 INSUFFICIENT INDEPENDENCE OF NATIONAL BODIES: OVERVIEW OF STAKEHOLDERS’ RESPONSES

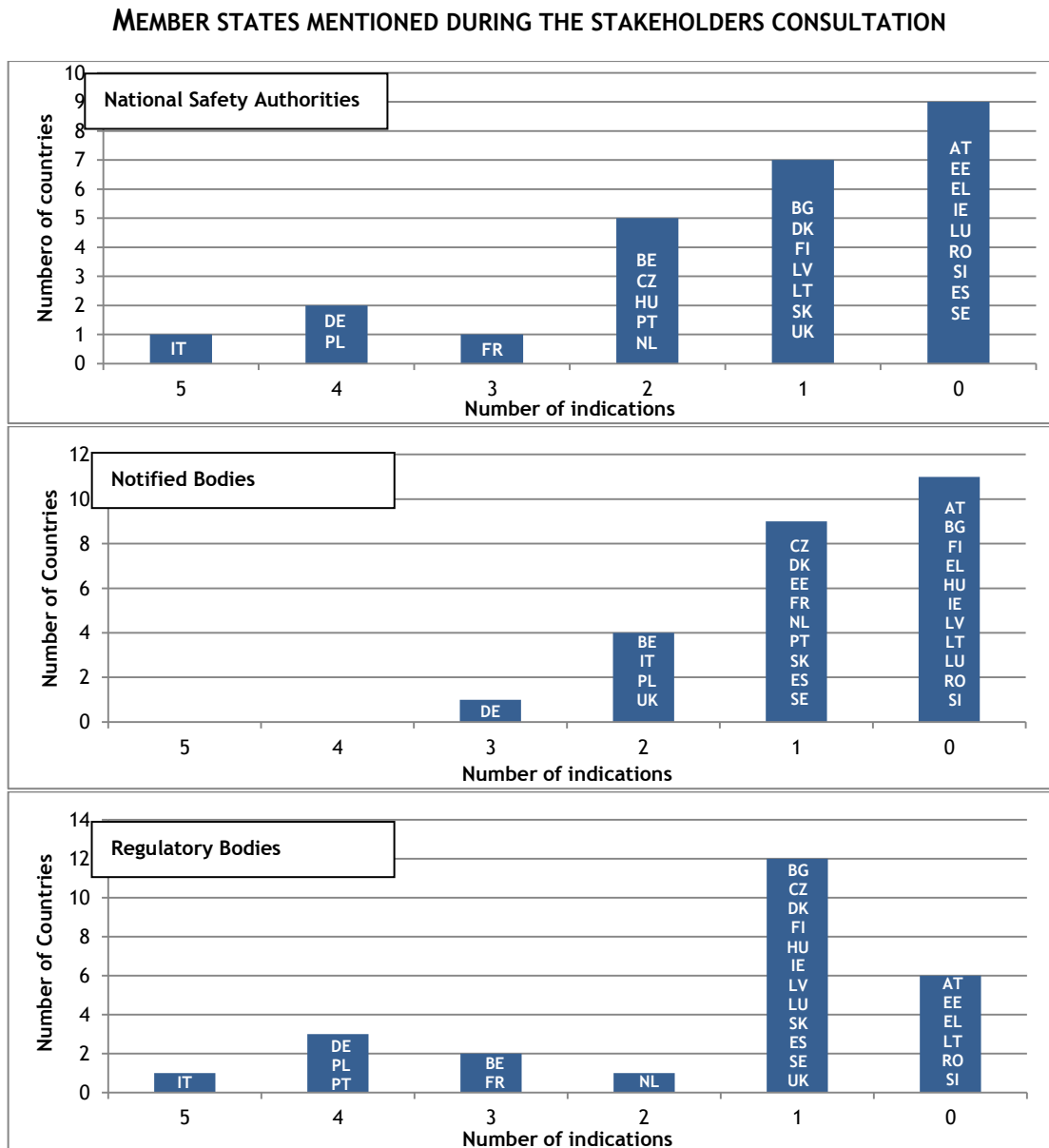


- 3.113 Nevertheless, the situation varies across Member States, as shown in Figure 3.12 below. Some respondents seemed to be particularly concerned about the insufficient independence of the NSAs in Italy, which was mentioned five times and also in Germany and Poland (four mentions) as well as France (three mentions). The Italian case study shows that for the time being, staff at the Italian NSA remain seconded from RFI, although this will shortly change and is likely to have led to these responses. The French case study confirms this further, providing evidence that about 50% of the NSA technical staff are on secondment from SNCF.
- 3.114 In Portugal, one stakeholder pointed out that due to insufficient technical resources in the NSA, this institution delegates some actions and powers to the Infrastructure Manager,

particularly in areas related to railway infrastructure. In Slovakia, the poor independence of the NSA and the RB is due to the fact that the organisation is fully connected to the state budget through a budgetary chapter managed by the Ministry.

3.115 Although the independence of Notified Bodies does not seem to be a major issue, Germany was mentioned three times as a country of concern on this point, which is less surprising given that the German Notified Body is a department within the NSA. However, from the case study analysis this does not appear to affect the effective functioning of the rail market in that country.

FIGURE 3.12 LACK OF INDEPENDENCE OF NATIONAL BODIES



3.116 Lack of independence does not necessarily raise discrimination issues and difficulties for operators. Some stakeholders interviewed in Germany have stated that neither the NSA

nor the Regulatory Body show signs of insufficient independence or discriminatory behaviour against new entrants. Other stakeholders, by contrast, indicated this as an issue in responding to the on-line survey. This contradictory evidence might be partially explained by the presence of contrasting views among stakeholders, reflecting different interests and experience as well as different experience in dealing with this organization.

- 3.117 At the same time, the presence of full independence alone does not prevent the occurrence of discriminating practices. In Hungary, one stakeholder mentioned that the NSA, although formally independent, is biased in favour of the incumbent RU when it takes major decisions and when conducting consultations with the industry. In some cases this might be determined by the fact that NSAs or RBs hire staff previously working for the incumbent railway undertaking, as in Poland.

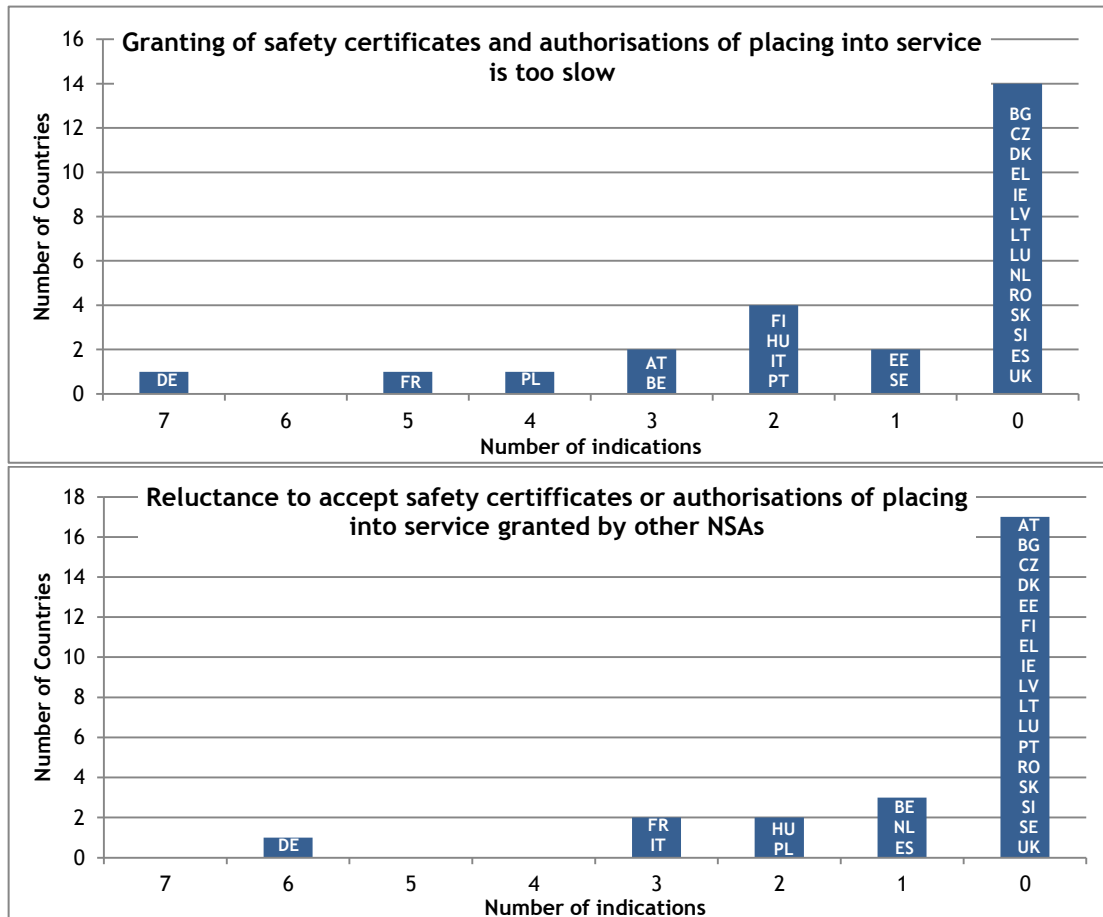
Inefficient functioning of the NSAs relating to the acceptance of safety certificates or authorisations for the placing into service

- 3.118 58% of the interviewed stakeholders (excluding interested parties) agreed that the granting of safety certificates to rail operators by the NSAs and the authorisation of placing into service of rail systems and vehicles is currently too slow.
- 3.119 Respondents had the view that, processes were too time consuming. As shown in Figure 3.13 below Germany was mentioned in this respect seven times, followed by France with five and Poland with four mentions. Some respondents indicated that the poor performance of Germany is due to delays caused by the national NSA.
- 3.120 It was the general view amongst stakeholders that the situation varies among Member States, and with respect to the type of authorisation required. For example one respondent pointed out that Sweden has problems with the authorisation to place non-TSI conforming vehicles in service as it takes too long and is quite costly for the applicant.
- 3.121 A national institution made the point that this matter is very complex and has different aspects:
- “The processes are slow due to lack of human resources to deal with separate cases, complicated and non-transparent legal requirements (mixture of EU and national requirements) and relatively low knowledge about the requirements among applicants. On the other hand the entities working in the field of conformity assessment never received any support from the member state in order to prepare for the role of NoBo or DeBo”.*
- 3.122 According to this stakeholder it is crucial to establish common accreditation programs in terms of specific TSIs for Directive 2008/57/EC. The “current system disturbs competition and makes it possible for incompetent entities to function in the market”.
- 3.123 Another NSA pointed out that it is a complex process which requires time, “even more so as we are still a long way from ideal interoperability”. It also argued that “the NSA must pay close attention to all criteria guaranteeing operational safety.
- 3.124 Rolling stock manufacturers emphasised the slowness of procedures, however one stakeholder mentioned: “the authorisation process could run more efficiently if constructors worked more closely with regulations from the beginning, whether that be

from an administrative or a technical point of view. It can be noted that the NSAs are still often confronted with problems that should not reach that level”.

FIGURE 3.13 INEFFICIENT FUNCTIONING OF NSAS ON THE RELEASE OR ACCEPTANCE OF SAFETY CERTIFICATES OR AUTHORISATIONS FOR THE PLACING INTO SERVICE

MEMBER STATES MENTIONED DURING THE STAKEHOLDERS CONSULTATION



- 3.125 The Polish case study confirmed that UTK in Poland has problems in adhering to its own deadlines for processing documents and requests, but different stakeholders had different views on the cause of this. Some of them stated that UTK often asked for many changes to be made to the documents, which in their view were irrelevant to the content of the application. The UTK conversely claims that long processing times are usually due to the poor quality of documentation submitted by applicants.
- 3.126 The situation is also seen in Hungary where the NSA claims that the timing set by law is regularly exceeded because of incomplete documentation provided by applicants. While private railway undertakings accuse the NSA of slowing down the process without breaching the legal time limits by requesting additional documentation.
- 3.127 61% of the sample (again excluding interested parties) indicated that some NSAs are reluctant to accept safety certificates or authorisations for the placing in service of

railway vehicles and subsystems granted by other NSAs. However, once asked to indicate the Member State of concern, they had some difficulty in providing examples. Only twelve respondents mentioned a Member State where this was the case. Respondents mentioned Germany six times, followed by France and Italy with three mentions each, and Poland and Hungary with two mentions.

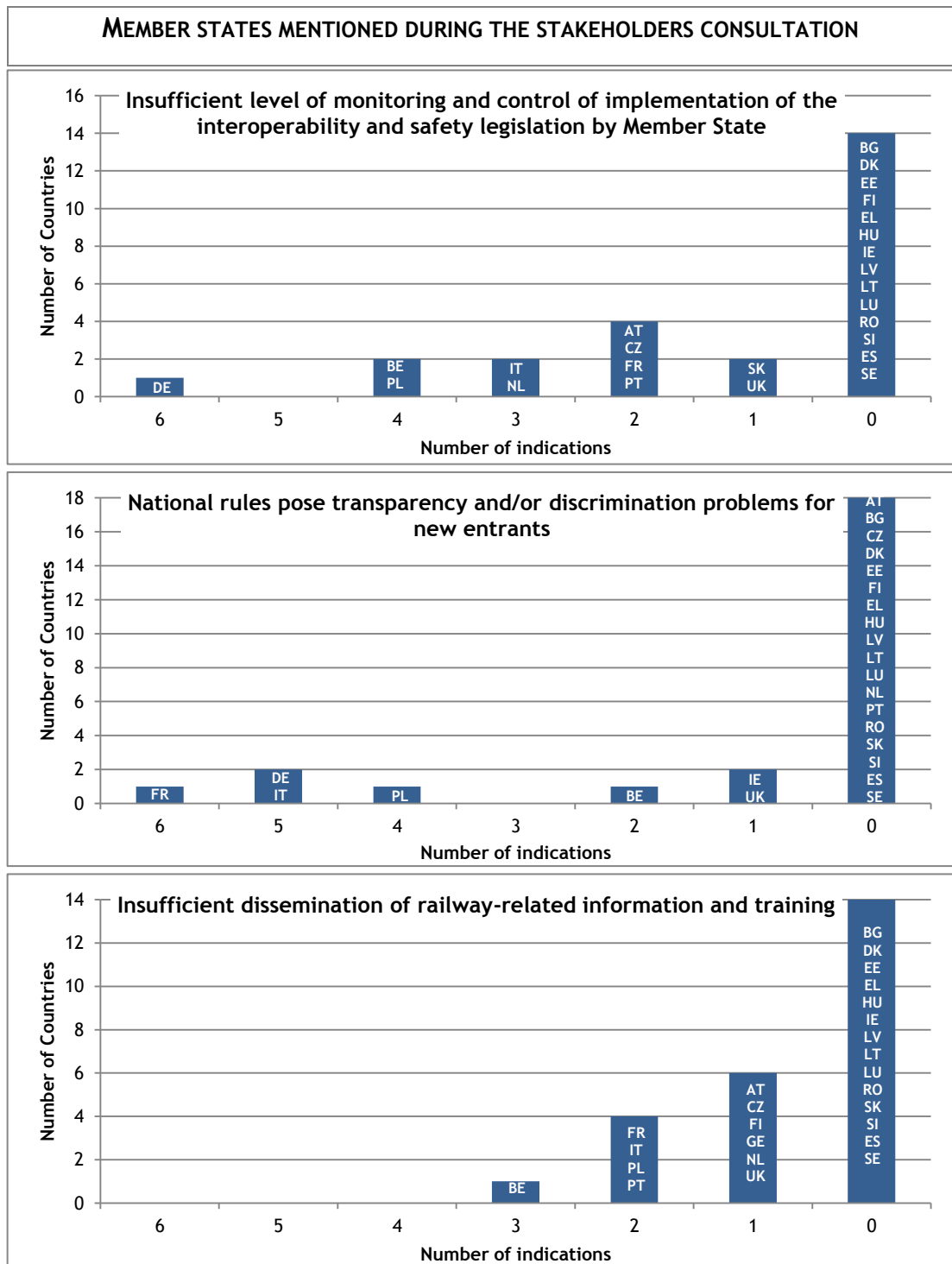
- 3.128 Further evidence is provided by the German and Polish case studies. In Germany railway undertakings complained that the national NSA's procedure for issuing safety certificates was too slow. In particular, as there was no feedback from the NSA on submitted documentation, RUs had no chance to correct their applications within the process. This has been supported by correspondence provided by a railway undertaking. The rolling stock authorisation process is becoming an issue of increasing importance for stakeholders. According to RUs and producers this has become more and more time consuming and demanding over time.
- 3.129 The reluctance of the Polish NSA to accept documentation approved by the NSAs of other Member States is evidenced by the decision taken in 2007 by UTK. The authorisation of class 66 locomotives (cf. section 3.30), which were already approved for use in the UK and in France, was declined on the grounds that the driver's seat is located on the left. The Commission pointed out that, since the class 66 locomotive was already approved for use in the UK and in France, then as per Directive 2008/57/EC on Interoperability, there should be no reason to decline approval for its use in Poland.
- 3.130 Other problems were indicated for further Member States. An RU indicated that in Italy the wheelsets of a loco which had authorisation in five other Member States had to be tested again. A stakeholder pointed out that when it tried to enter the Spanish market "the Spanish authorities were reluctant to accept its vehicles and the bureaucracy was very high to do it", claiming that "this implies additional costs for the operator".
- 3.131 According to a national body:
- "the problem is based on different transposition of EU directives in MS leading to slightly different requirements for the certification and authorisation processes, different safety cultures and different level of experience in the processes. Besides this, there are still huge differences in the quality of infrastructure and fixed installations that require additional checks".*
- 3.132 In their opinion "this problem will disappear along with market development" providing that there is "better quality of transposition and wider use of accreditation to verify competence against unified standards".
- 3.133 Finally an element of concern that was raised by some stakeholders with respect to a limited number of NSAs was the extremely bureaucratic approach they adopted, that caused delays and costs in the finalisation of the safety and authorisation procedures.
- Other elements**
- 3.134 Most respondents (54% of those expressing an opinion) agreed that the level of monitoring and control of implementation of the interoperability and safety legislation by Member States is not sufficient. Nevertheless, as shown in Figure 3.14 for fourteen Member States this was not mentioned as a specific issue. This problem was indicated specifically for

Germany (mentioned six times), Belgium and Poland (mentioned four times each), Italy and the Netherlands (mentioned three times each).

- 3.135 The poor performance of Germany in this regard is supported by the fact that on 24 November 2011, the European Commission decided to refer Germany to the Court of Justice for failing to implement the latest amendment to the Safety Directive. The same day, the European Commission also started proceedings against Germany for failure to implement two further Directives on interoperability (2008/57/EC and 2009/131/EC) which regulate, amongst others, the placing into service of parts of the railway system.
- 3.136 Other Member States for which an infringement process is in course for EU Railways Directives are indicated on the Commission webpage¹⁴.
- 3.137 Survey respondents were also concerned about the transparency and discrimination problems posed by national technical and safety rules. 46% of those that expressed a view on this agreed that this is an issue. Among Member States, France was mentioned six times, followed by Germany and Italy (five mentions each) and Poland (four mentions). Respondents also mentioned Ireland and the United Kingdom twice and Belgium once. The rest of Member States did not receive any specific mention in this regard, and some were specifically mentioned as not showing any transparency or discrimination problems (e.g. Slovenia, Bulgaria, Czech Republic, Romania).
- 3.138 The Polish case study confirms the evidence quoted above. Some private railway undertakings have indicated that railway laws in Poland favour the incumbent undertakings from the PKP group. They also indicated that their point of view is not taken into account during the consultation phase of the drafting of new legislation.
- 3.139 In the Hungarian case study, both the NSA and the railway undertaking indicated this as an issue, as the translation of EU legislation is generally poor and leaves substantial gaps. The railway undertaking also stated that there are diverging interpretations of the same rule from different institutions. And that they incur time and financial losses, due to lack of clarity and consistency of rules and interpretations generated by the imprecisions and holes left in domestic legislation.
- 3.140 In Italy, stakeholders expressed concern about the proliferation of national rules following the rail accident in Viareggio and that this is increasing their cost base. One respondent also claimed that in this country “national technical rules are often changed and not communicated in an official way”.
- 3.141 We also note examples of where the infrastructure manager has created problems by limiting the access of operators to paths for authorisation testing or undertaking other activities that are outside the direct control of the NSA. Evidence of this has been found in France and Italy.

¹⁴ http://ec.europa.eu/transport/infringements/proceedings/rail_en.htm

FIGURE 3.14 OTHER ELEMENTS



- 3.142 The majority of respondents indicated the insufficient level of dissemination of railway-related information and training within the EU and between EU member states as an issue.
- 3.143 One stakeholder indicated that “there is too little consultation between the Ministries who are responsible for transposing directives”. Another one stated that the biggest problems

are the high number of new legislations issued within a very short time and the great amount of detail regulated today by the EU.

- 3.144 Some respondents suggested ways to improve the current way of disseminating railway related information and training in the EU, suggesting that ERA should take this role and work closely with national institutions to support them with information and tailored training tailored. For example, ERA could hold workshops and training oriented to one Member State or several neighbouring States who face similar problems. In the view of this stakeholder, “the training should refer to real case studies that could be solved by different groups of actors (NSAs, RUs, IMs)” and “the role of NSAs in this field should be more precisely described in EU legislation”, supporting his argument with the fact that current provisions of art 16.2.f of the safety directive have not been properly transposed into Polish law due to a lack of understanding of this provision.

Key findings on the relevance of problem elements

- 3.145 Stakeholders indicated the lack of sufficient financial or human resources in the case of some National Safety Authorities and Regulatory Bodies as a major issue of concern.
- 3.146 One respondent to the survey indicated also that some NSAs are so small that they cannot have competencies covering their whole scope, quoting the case of Luxembourg, Slovenia and the Baltic States. The suggestion was made to group some small NSAs together or with a large NSA in its neighbourhood, and to transfer all NSAs under the hierarchy of the ERA, in order to develop a consistent EU wide approach.
- 3.147 The fact that a proper implementation of EU railway directives is hindered by divergent interpretation of the directives, together with insufficient dissemination of railway-related information and training, were key elements of concern for interviewed stakeholders.
- 3.148 Overall, the analysis provided evidence to confirm all the different elements identified as contributors to the problem drivers, except for those related to the lack of resources and independence of the Notified Bodies. However, some stakeholders raised concerns regarding the operation of NoBos in the area of interoperability/TSI conformity.
- 3.149 From our analysis and from stakeholder discussions we have not identified any additional problem elements that are relevant within this framework, we do note however that we have repositioned some of the problem elements and the problem drivers in order to ensure that they are correctly reflected in the analysis. The primary example of this is the problem element that had been identified in the terms of reference as “divergent interpretation of railway legislation” which through our analysis became a problem driver rather than a problem element.
- 3.150 The next chapter shows how the objectives have been defined to address these problem elements and drivers and then Chapter 5 sets out the individual measures and wider policy options that have been looked at and assessed to counter these problems which lead to continued technical and administrative problems within the market.

The steady state and its evolution

The contents of the baseline

3.151 A fundamental part of the analysis for the impact assessment is the definition of a baseline on which to build alternative policy options going forward. As set out in the Impact Assessment Guidelines, this baseline needs to set out an evolution of the current market and should not be limited to a snapshot of the status quo. The Baseline assumes no substantial changes to the current legislation and:

- the adoption of the Rail Recast in its current form;
- the possibility of the scope to be extended on existing TSIs, but with no retroactive clauses;
- An improved understanding of Railway Directives and Regulations through the publication of the so-called DV29bis which builds on the success of Recommendation 2008/217 (DV29) produced by the Agency and goes into more detail on the manner in which Member States should implement legislation along with other on-going activities of the Agency;
- On-going activities relating to the single railway safety certificate (though these are still at a preparatory assessment stage as no legislative change occurred yet);
- Continued implementation of the Railway Directives; and
- Improved staff resources in the NSAs.

The adoption of the Rail Recast

3.152 We have assumed that the Recast of the First Railway Package will have a direct (although not immediate) effect on the independence of Regulatory Bodies and as such we estimate that this will have a beneficial effect on new entry no earlier than two years after the implementation of the Directive. For the purposes of this study, we have estimated that the implementation of the Directive will be 2015 and therefore that the impact of all options will start from that date. Therefore, we assume that the benefits resulting from the change in the Regulatory Bodies will eventuate from 2017. The adoption of the Rail Recast will also decrease some barriers to access to rail related services for freight operators.

TSI scope extension

3.153 This is likely to have a wider impact on the rail industry as all of the network, including off the Trans European Network, will need to be compliant with TSIs. This will mean that manufacturers of rolling stock and of trackside equipment will have less opportunity to customise their equipment and costs for local authorities and for the whole network can be assumed to decrease. Within the framework of this study, until 2025, this is likely to have a small impact in the short term on the reduction in barriers to access and the competitiveness of rail but could potentially have a strong impact in the longer term. The Agency has estimated that this could amount to a cost saving for Europe as a whole of about €40 mil. by 2020. Our analysis of the impact of this has been included in the assessment set out in Chapter 6.

Improved understanding of the Railway Directives and Regulations

- 3.154 This activity will come in the form of the publication of the second edition of DV29. This baseline scenario assumes only a passive role in this field and does not include more detailed training and teaching activities to be carried out by the Agency as per measure 4.2 and 4.3 above, which will be included in the other Policy Options discussed in Chapter 4. The Agency has estimated that this could amount to a cost saving for Europe as a whole of about €10 mil. by 2013. Our analysis of the impact of this has been included in the assessment set out in Chapter 6.

On-going activities relating to the Single Safety Certificate

- 3.155 The Agency is currently undertaking a consultation in relation to the Single Safety Certificate, the baseline assumes that it will carry on its activities in this area, but without a more active role.

Increased implementation of the Railway Directives

- 3.156 Some Member States have so far failed to properly implement the Safety and Interoperability Directives. To date the Commission has only initiated infringement proceedings against one Member State, Germany, for the non-transposition of the Interoperability Directive.

Resources at NSAs

- 3.157 There is a likelihood that some of the concerns set out in Chapter 3 relate to the resources of the various NSAs. We have been informed as part of the stakeholder analysis that at least 2 NSAs are currently addressing this issue (UTK in Poland through a recruitment drive and ANSF in Italy as a result of the publication of the legislative decree allowing ANSF to hire staff). Other NSAs are likely to take similar measures in the coming years and we assume that this will have an impact on the time to market of operators as a result of increased staffing of NSAs relieving the bottlenecks at NSAs relating to staffing. This is likely to occur by 2020 and we have quantified this within the model.

Other activities - self regulation

- 3.158 This baseline also assumes that many of the initiatives that are currently being carried out on a national basis will continue to be implemented and will lead to some other Member States doing something similar. For example, we have seen that the German NSA has published a manual for vehicle acceptance, although this is not compliant with EU legislation, it nonetheless increases transparency in the market. We have been informed that this is also being developed by the Italian NSA, although to different specifications.

Going forward within this framework

- 3.159 We show in Chapter 6 that carrying on with the current framework (taking into consideration the evolutions set out above), will continue to have a positive effect on the market. Technical and administrative barriers will continue to be progressively removed through the continuation of the current activities of the Agency and through new national processes.
- 3.160 The current legislative framework does not, however, ensure that the reduction in barriers can be carried out in a fast enough manner to have a significant impact on access barriers, nor does it ensure that there will be a consistent approach across Europe. The Agency's

current tasks are limited to its current role which remains mainly hands off in nature. This limits what an independent, central body can do to provide the certainty for new and existing businesses in terms of investing in the railway environment and as a result limits the level of harmonisation that can be achieved. Without such coordination or future intervention in the sector, there is a risk that vehicle acceptance will become ever more difficult and that national rules will continue to be developed at a national level.

- 3.161 Self-regulation is to be commended as it increases transparency, however, it does not provide any incentives for the self-regulation to be undertaken at a coordinated level. This will lead to a further level of standards/guidelines being developed at a national level that in no way facilitates those operators/applicants wishing to authorise equipment or rolling stock across Member States. This can lead to the opposite effect of increasing barriers rather than reducing them.
- 3.162 The Agency is also currently pursuing a policy of identifying National Technical Rules as discussed in paragraph 3.70 and in relation to scope extension. This, however, will not be sufficient to ensure that these Rules are removed or minimised within a short timescale, continuing to compel NSAs to request additional tests and evidence to ensure that the rolling stock is compatible with their national networks.
- 3.163 The current activities being undertaken in relation to the Single Safety Certificate will also be insufficient to increase certainty and reduce the costs of applicants across Member States. In particular, there is no clear mandate for the Agency to define the Single Safety Certificate and, in particular, to reach a harmonised solution within a short period of time. While this may partially address the barriers issue, it does not go far enough in ensuring that a consistent approach is developed across Member States that will make it easier for operators to enter the market. There needs to be greater involvement of the Agency to ensure that this measure is adopted as quickly as possible.
- 3.164 Continuing the current regime will also mean that, although improving, the level of implementation will still remain at a lower level than required to improve the competitiveness of rail. This is due in part to the manner in which Member States choose to implement the legislation, but is also due to the lack of training that the Agency currently provides in relation to how the Directive and Regulations should be implemented. Furthermore, the current infringement processes are slow and time consuming meaning that once an infringement has been identified it can take a long time for this to be rectified through infringement proceedings.
- 3.165 The baseline also assumes that the Rail Recast will deal with the problems identified earlier in relation to Regulatory Bodies. We believe that it would not be appropriate to revisit this until the Rail Recast has been fully passed and implemented.
- 3.166 We believe that the areas that we have identified above will not, as a whole, do enough to decrease the technical and administrative barriers that exist within the rail sector. As a result, we believe that action needs to be taken to ensure that the timescales for the reduction of these barriers are accelerated through specific policy and legislative actions described in detail in Chapter 5.

4 The objectives of the study

Introduction

4.1 This chapter sets out our assessment and validation of the objectives and shows how they relate to the problem as defined in chapter 3. This assessment builds on analysis undertaken at an earlier stage of the study and modifies it accordingly to reflect changes to the problem definition and consequently a change that we have had to make to one of the operational objectives. In carrying out the validation of the objectives we have looked in detail at how they can best be tied to the problems identified in the previous chapter and we have sought to consider:

- the coherence of the operational objectives with the general and specific objectives;
- the extent to which the achievement of all the objectives depends on the effective functioning of the EU railway market rather than on other (external) causes;
- the manner in which the objectives relate to the problems identified in the previous chapter; and
- how the objectives within this study relate to the overall objectives to be pursued within the 4th Railway Package.

4.2 The way in which the objectives can be quantified and monitored over time is also addressed in this chapter.

The general objective

4.3 The Commission has defined the general objective of this policy initiative as:

- “To contribute to the completion of the internal market for transport through improvements to the operation of the integrated EU railway system and its institutional framework, in particular through the removal of administrative and technical barriers.”

4.4 This objective appropriately reflects the need to create a single European railway market in order to encourage the growth of the sector, to improve the competitiveness of rail and meet wider environmental as well as economic objectives for the Union as a whole. The focus of the objective remains the reduction of barriers to the effective functioning of the market and the removal of barriers to entry to the market in order to improve the competitiveness of rail and address the problems identified in the previous chapter. In particular the focus is on the integration of the railway system and its institutional framework, which should focus not only on the workings and the role of the Agency, but also how the Agency interacts with the various national institutions in the sector, specifically the NSAs and the Regulatory bodies.

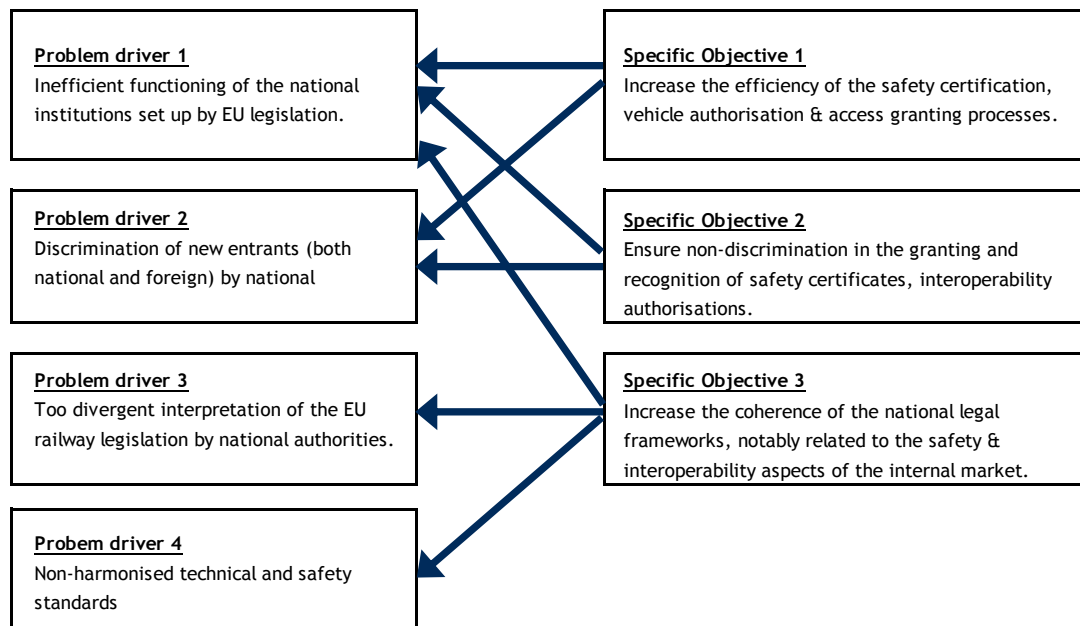
4.5 By targeting the EU railway system and its institutional framework, this general objective relates to the main problem identified in the previous chapter, i.e. “The persistence of technical and administrative barriers that are creating long and costly procedures for the sector, and ultimately affecting the competitiveness of rail.”

- 4.6 This main problem is now shared with the rest of the work that is being carried out for the 4th Package making the work between the two projects more closely linked. This general objective reflects closely the main problem and we believe it to be appropriate for the study. This conclusion has also been confirmed by the views of the stakeholders in the survey and the follow-up meetings where they confirmed that this general objective is appropriate.

The specific objectives

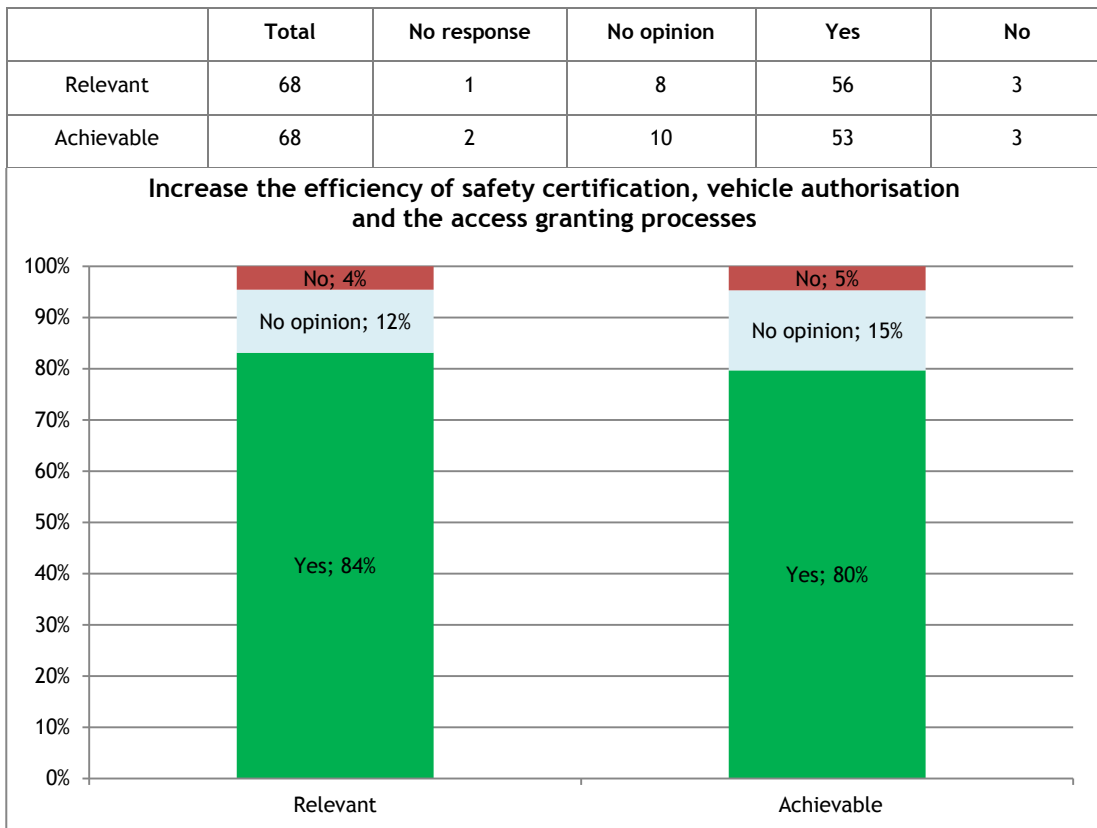
- 4.7 The task specifications for this project listed a number of proposed specific objectives for this policy initiative:
- Increase the efficiency of the safety certification, vehicle authorisation and access granting processes (Specific Objective 1);
 - Ensure non-discrimination in the granting and recognition of safety certificates, interoperability authorisations and in the granting of access to the rail network and services across the EU (Specific Objective 2); and
 - Increase the coherence of the national legal frameworks, notably related to the safety and interoperability aspects of the internal market for railways (Specific Objective 3).
- 4.8 In order to complete the internal market for rail and improve the functioning of institutions that are creating the problems set out in the previous chapter, it is important that the technical and administrative barriers are broken down. The specific objectives seek to tackle the problems created by the barriers in three areas:
- efficiency of the processes;
 - culturally by ensuring non-discrimination; and
 - legally by ensuring that the framework is correct.
- 4.9 The figure below shows the linkage between the Specific Objectives above and the Problem Drivers in the previous chapter.

FIGURE 4.1 SPECIFIC OBJECTIVES/PROBLEM DRIVERS MAP



- 4.10 The specific objectives are linked to the problem drivers illustrated as in the previous chapter. In particular, the first two specific objectives address Problem drivers 1 and 2 through the improvement of the functioning of the national institutions set up by EU legislation (Problem driver 1) and the removal of actions/procedures discriminating new entrants in Member States' rail markets (Problem driver 2). Specific Objective 3 also partially addresses Problem driver 1. Problem driver 3, i.e. the presence of too divergent interpretation of the EU railway legislation by national authorities, is addressed by the Specific Objective 3, which aims to increase the coherence of national legal frameworks. As noted in Chapter 3, Problem driver 4 is not part of the analysis of this study, although it is important to note that Specific Objective 3 should also have some relevance to the issue of non-harmonised technical and safety standards.
- 4.11 These object/problem relationships have also been confirmed by the views of the stakeholders. The figures below show the responses that we have received in relation to the three questions looking at the specific objectives.
- 4.12 The figure below summarises responses to the following question related to the First Specific Objective:
- “Please express your view on the following specific objective: Increase the efficiency of safety certification, vehicle authorisation and the access granting processes.” Stakeholders were asked to comment as to whether this objective was relevant and/or achievable.

FIGURE 4.2 RESPONSES TO SPECIFIC OBJECTIVE 1 QUESTION

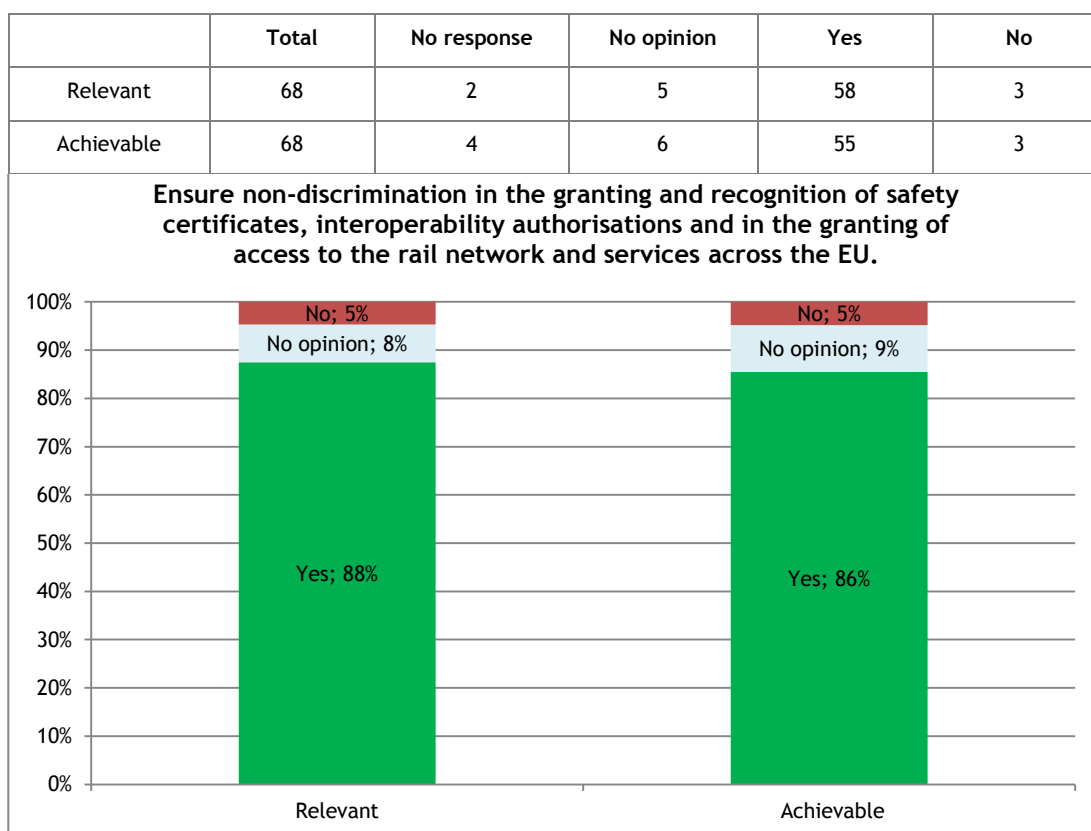


4.13 The majority of the respondents agreed that an increase in the efficiency of safety certification, vehicle authorisation and the access granting process is a relevant objective. Only 4% of those responding had the view that this objective is not relevant. The chart paints almost the same picture with regard to the question of whether this objective is achievable. Almost 80% of those responding had the opinion that this objective could be achieved, in contrast to 5% considering this objective as not achievable.

4.14 Figure 4.3 below summarises responses to the following question related to the Second Specific Objective:

“Please express your view on the following specific objective: Ensure non-discrimination in the granting and recognition of safety certificates, interoperability authorisations and in the granting of access to the rail network and services across the EU.”

FIGURE 4.3 RESPONSES TO SPECIFIC OBJECTIVE 2 QUESTION



- 4.15 The response rate for this question was also high given that only two of the survey respondents did not answer the question on the relevance and only four on the achievability of this objective. Of those responding, by far the majority responded with the view that ensuring non-discrimination with regard to safety certification, interoperability authorisations and access to the rail network is a relevant (88%) and also achievable (86%) objective.

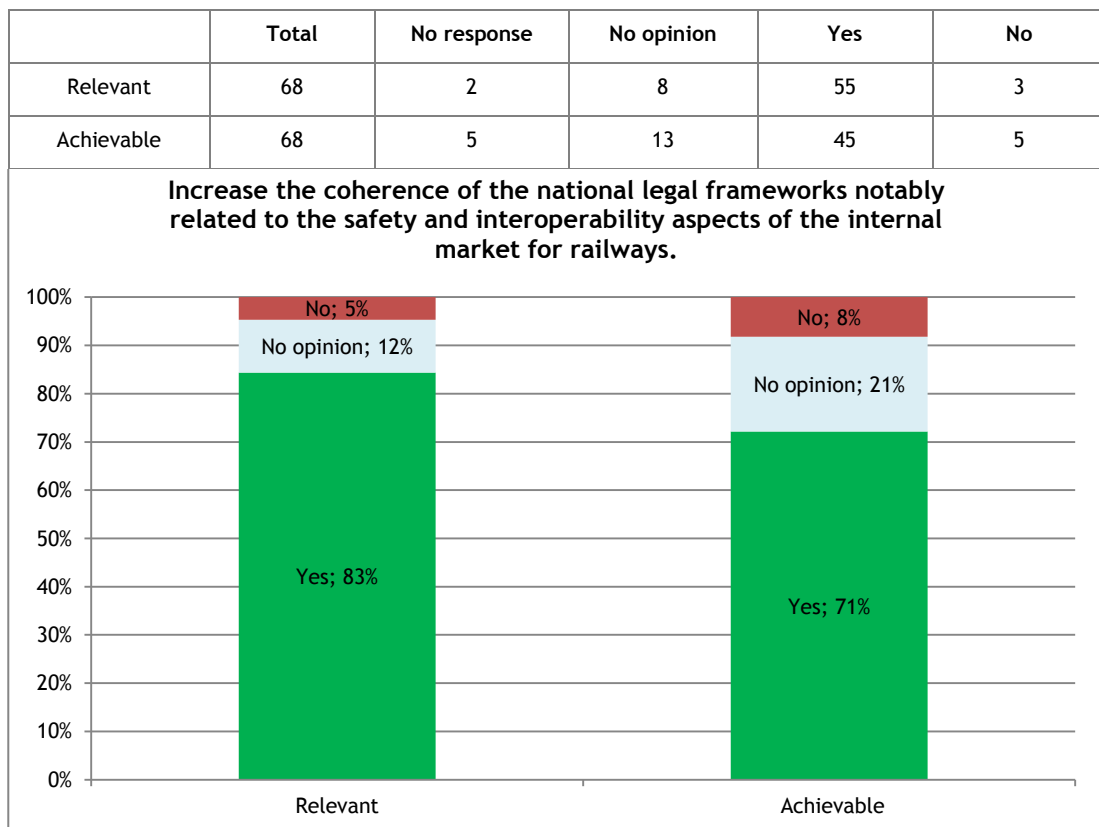
Further analysis of specific objective 2

- 4.16 While the stakeholder results for this specific objective as a whole were very positive we have seen from the follow-up interviews and the analysis in the previous chapter that the main problem relates primarily to the first part of this specific objective. The second part, relating to granting access to the rail network is an aspect that relates primarily to access conditions for the network which is not the focus of this support study, but is being looked at in the parallel support study on the 4th Railway Package. Furthermore, this part is also best guaranteed through an appropriately structure regulator, something that is being looked at through the changing role of the regulator foreseen in the Rail Recast.
- 4.17 Therefore to ensure that the focus of the objectives of this support study remains the addressing of the problems defined in the previous chapter we believe that it would be more appropriate to refine this specific objective to the following:
- Ensure non-discrimination in the granting and recognition of safety certificates, interoperability authorisations.

4.18 Figure 4.4 below summarises responses to the following question related to the Third Specific Objective:

“Please express your view on the following specific objective: Increase the coherence of the national legal frameworks notably related to the safety and interoperability aspects of the internal market for railways.”

FIGURE 4.4 RESPONSES TO SPECIFIC OBJECTIVE 3 QUESTION



4.19 The question on the relevance of this objective had a very high response rate with only two of 68 surveyed giving no response. The majority (83%) of those providing a response to the question agreed that increasing the coherence of the national legal frameworks is a relevant objective. Of the responses to the question on the achievability of this objective, a smaller majority considered this objective achievable. Of those responding, 21% did not state an opinion and 8% had the view that this objective was not achievable.

4.20 This stakeholder evidence supports the view that the three specific objectives are appropriate for the study. Given the high degree of stakeholder consensus that these specific objectives are both relevant and achievable and the manner in which they seek to address the problem drivers set out in the previous chapter, we believe that these specific objectives are appropriate and reflect correctly the requirements of the main objective. We do not consider it practical to define quantitative or qualitative indicators that could accurately measure the progress of achievement of these objectives and the majority of the monitoring would need to be focused on the operational objectives discussed below.

Operational objectives

4.21 The task specifications initially identified a number of operational objectives for the current policy initiative which we modified shortly after the start of the project to the following:

- To achieve, by 2025, a 25% market share of rail freight market by new entrants in each EU Member State.
- To achieve, by 2025, a 25% reduction in the time to market for new railway undertakings.
- To achieve, by 2025, a 25% reduction in the cost and duration of the certification of rolling stock.

4.22 At the start of our analysis these objectives seemed the most appropriate, but as the analysis progressed it became apparent that one needed to be modified further as discussed below.

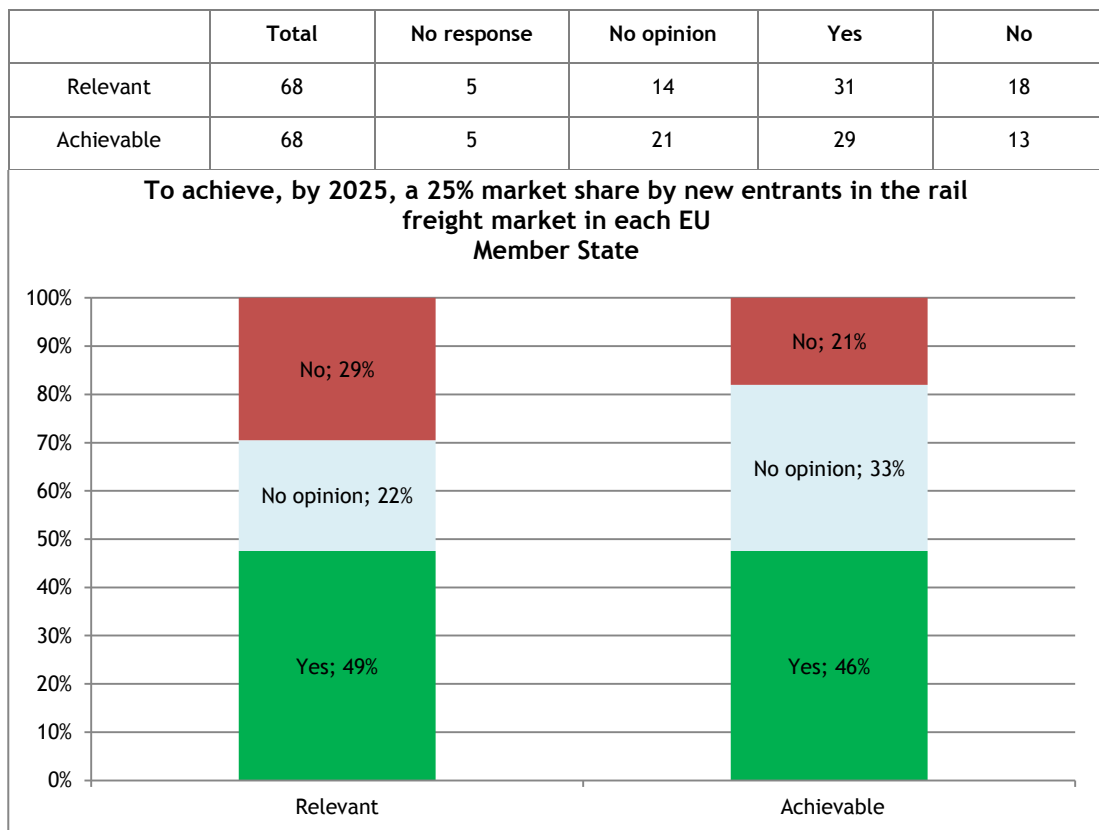
Stakeholder opinions

4.23 We consulted in the survey on the three operational objectives as described above and the results from the survey for the relevant questions are set out below.

4.24 In relation to the first operational objective, stakeholders were asked to respond to the following question:

“Please express your view on the following operational objectives: To achieve, by 2025, a 25% market share by new entrants in the rail freight market in each EU Member State (where appropriate).”

FIGURE 4.5 RESPONSES TO OPERATIONAL OBJECTIVE 1 QUESTION

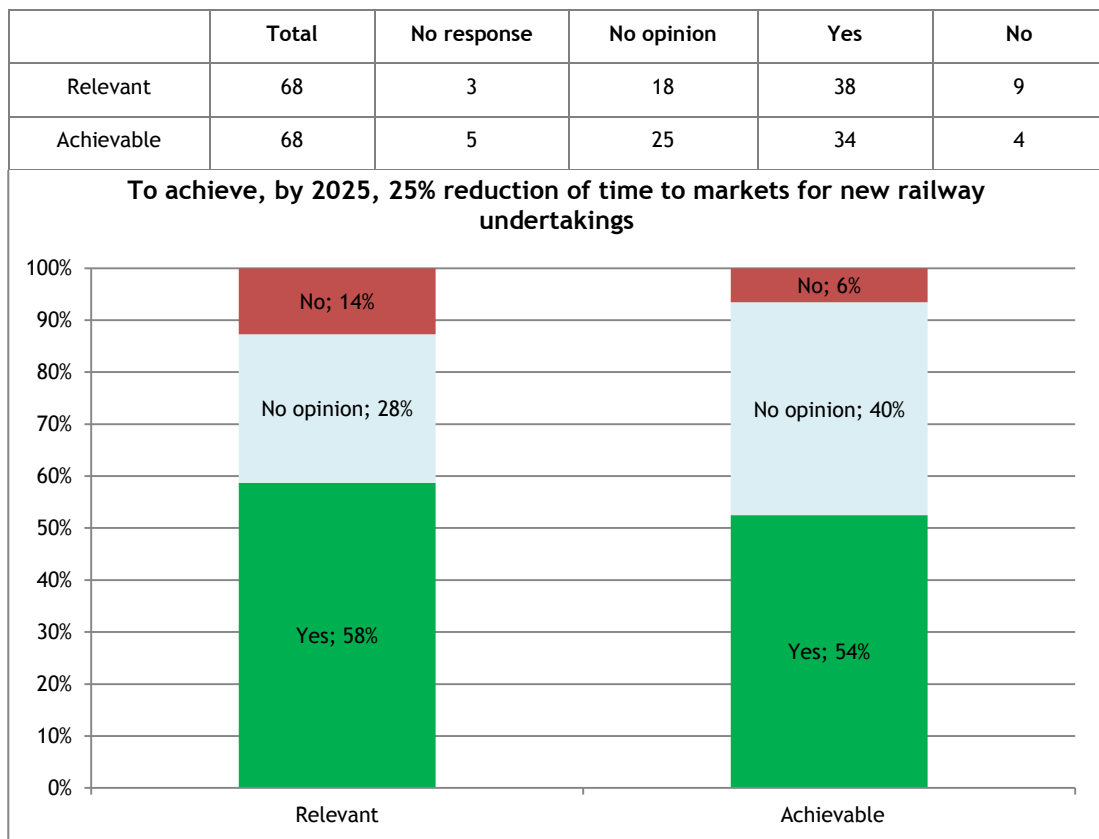


4.25 Both the question on the relevance and on the achievability of this objective had a response rate of 93% implying that in each case five of the surveyed stakeholders did not give an answer. Of those responding, a high number stated that they had no opinion on the relevance (22%) and no opinion on the achievability (33%). The results of the survey show that only 49% of the respondents provided a positive view that a 25% market share of new entrants in the freight market is a relevant and achievable objective. In contrast, 29% of the respondents considered the objective as not relevant and 21% as not achievable. Given the more favourable support that other questions in the survey have received this objective may not be the most appropriate for the analysis.

4.26 In relation to the second operational objective, stakeholders were asked to respond to the following question:

"Please express your view on the following operational objectives: To achieve, by 2025, 25% reduction of time to markets for new railway undertakings."

FIGURE 4.6 RESPONSES TO OPERATIONAL OBJECTIVE 2 QUESTION

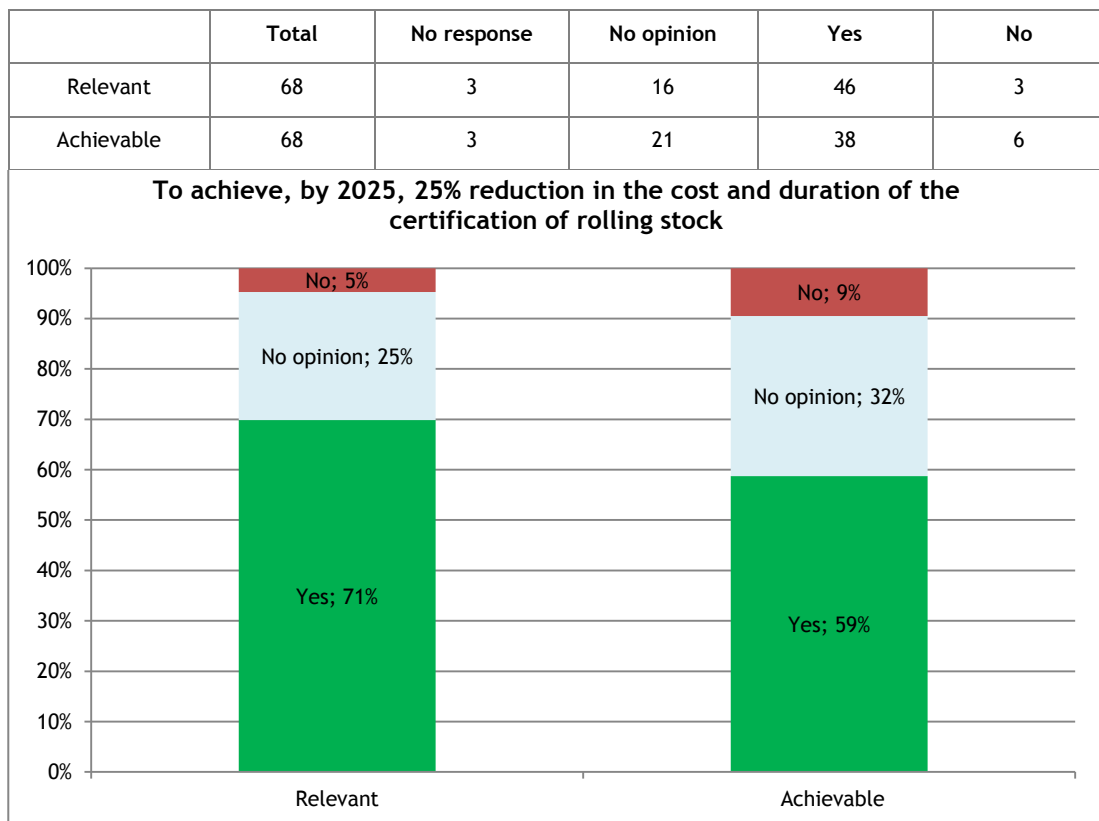


4.27 The response rate for this question was very high at to over 90%. Of those responding, however, 28% stated no opinion on the relevance of the objective to reduce time to markets for new entrants. Another 14% viewed the objective as not relevant. 58% stated that the objective was relevant. Of the respondents, only 6% had the view that this objective was not achievable, as a result we continue to believe that this objective is relevant.

4.28 In relation to the third operational objective, stakeholders were asked to respond to the following question:

"Please express your view on the following operational objectives: To achieve, by 2025, 25% reduction in the cost and duration of the certification of rolling stock."

FIGURE 4.7 RESPONSES TO OPERATIONAL OBJECTIVE 3 QUESTION



4.29 The response rate for this question was also high. About 76% of those surveyed expressed an opinion and 71% of those considered that the reduction in the cost and duration of the certification of rolling stock is a relevant objective whilst 25% of those responding had no opinion. However, less than 60% of respondents had the view that this objective could be achieved. About 9% stated explicitly that they perceive the objective as not achievable

4.30 There was relatively strong stakeholder support for objectives 2 and 3, with only a small percentage of negative responses. However, the results for the first objective were less conclusive, with less than half stating that the objective is relevant. It should be noted though that some of those who responded “no” were incumbent rail operators whose self-interests could be expected to illicit such a response. Given the negative responses that we received for the first operational objective discussed above as well as the more detailed discussions with stakeholders described in Chapter 3, we have propose to remove operational objective 1.

4.31 We have replaced it with a different operational objective that responds to difficulties with national rules as identified in Chapters 2 and 3 and, in particular, to ensure that the problem element relating to national rules is covered appropriately and ties to measure 4.1.2 discussed in the next chapter. The proposed objective is:

- To achieve, by 2025, simplification of legislation by the removal of all unnecessary national rules.

- 4.32 The initial proposal for this additional objective was defined in terms of a defined percentage reduction in national rules. However, following discussions with the Agency we concluded that this would not be appropriate. The key reasons for this are discussed in Chapter 3 but can be summarised as:
- The full extent of national rules has yet to be scoped out
 - Current detailed information on national rules is very limited with virtually no National Technical Rules (NTRs) notified
 - There is, however, a clear vision of what the end point should be - national rules minimised to those that are justifiably necessary.
- 4.33 A clear process has been articulated by the Agency for the removal of unnecessary national rules suggesting that this can be achieved by 2025. However, beyond the vehicle design rules category, details of the extent of the task and key milestones have yet to be developed.
- 4.34 Given the gaps in the current picture of the scope of national rules and the lack of a definitive reference database capturing the full extent of national rules, an objective defined in terms of a percentage reduction is not appropriate. However, we have a clear definition of ‘unnecessary rules’ which can be used as the basis for an objective to remove all unnecessary rules by 2025. This would encompass all the categories of national rules discussed in Chapter 3 with the possible exception of operational rules if the definition of operational rules proves problematic.
- “SMART” compatibility assessment of objectives***
- 4.35 In our validation of these operational objectives, we sought to confirm that they meet the “SMART” test, that is that they are Specific, Measurable, Achievable, Relevant and Time Bound. Starting from the last of these, it is clear that these objectives are Time Bound given that they are tied to a specific date - 2025. We note that these objectives are Specific in that they refer both to specifics: a time to market figure; a cost and duration of certification figure; and a removal of unnecessary national rules. These three operational objectives can also be measured and a description of the measurement that will be used for these objectives is set out below.
- 4.36 We believe that, in setting a date of 2025, the Commission would be creating targets that are challenging but potentially achievable. We considered the possibility of having these targets (or lower ones) achieved by 2020 in order to be in line with the wider transport policy objectives set out in the Transport White Paper. Our assessment, however, concluded that this was not achievable as any decisions in relation to the future role of the Agency were not likely to complete their passage through the Commission and the European Parliament for a number of years. Our estimates were around 2.5 years (as was the case for the Rail Recast where the impact assessment was published in April 2009 and the final vote will be at the European Parliament in June/July 2012) from the completion of this Impact Assessment study assumed for May 2012 and the subsequent Commission policy paper by the end of 2012. This would likely result in the new provisions entering into law in 2015, effectively leaving only 5 years for the provisions to be applied correctly and to start to have an effect on the market. As a result, a timeframe of 10 years from the entry into law date (2015 to 2025) seems more appropriate.

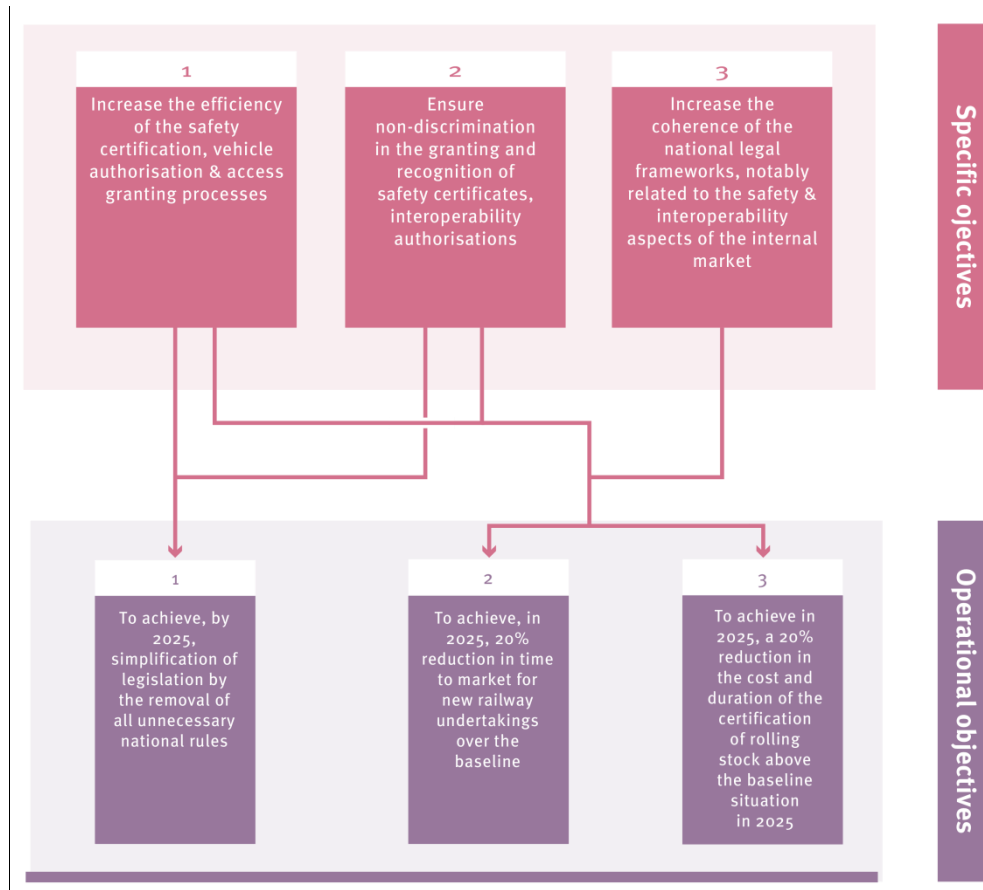
- 4.37 In assessing the relevance of these objectives, we also reviewed possible alternative objectives such as a reduction in the number of complaints over the identified period. However, our analysis led us to discard this potential objective specifically on its lack of relevance, but also on its measurability. In the first case, a more open market with fewer barriers may actually lead to an increase in complaints rather than a decrease, simply as a result of there being more players in the market all vying for scarce resources. With respect to measurability, our assessment concluded that it would be difficult to effectively identify when there was a complaint as, on the one hand, not all complaints are actually formalised for fear of retribution and, on the other hand, those that are not formal may just be a negotiating position in relation to access to the network.
- 4.38 Given the linkages set out in Figure 4.1 above we consider that the operational objectives are relevant to the analysis and address the issues set out in the problem elements. Furthermore, it can be seen that these operational objectives are closely aligned to the technical barriers to entry that are limiting the creation of a single European market: difficulties in rolling stock authorisation, limited number of entrants and persistence of national rules. Assessing the time to market and the cost to market (through the cost of rolling stock acceptance) are key indicators that are similarly used in non-rail sectors to assess the degree of barriers in different Member States which we consider a further reason why they should also be used here.

Further assessment of operational objectives

- 4.39 Initially we chose to set the operational objectives with an improvement of 25% to ensure they were challenging but achievable. This value was chosen because:
- The target value needed to be at least 20% for it to have a significant enough effect on the costs and timescales for the sector;
 - It needed to be high enough to ensure support from the industry as well as make it a defined goal to achieve;
 - Our experience from previous projects told us that the value should be in the range of 20% to 25%, any value higher than that would not be achievable and would hence alienate the sector.
- 4.40 In the analysis that we have undertaken for the impact assessment as set out in Chapter 6, we have seen that the impact of the baseline is already quite significant in terms of the cost to market for railway undertakings and more specifically the cost and timescales for vehicle authorisation. The analysis in Chapter 6 shows that two policy options (Options 4 and 5) actually provide a further incremental reduction over the baseline of at least 20%. Given this we decided to change the second and third operational objectives to the following:
- To achieve in 2025 a 20% reduction in the time to market for new railway undertakings above the baseline situation in 2025.
 - To achieve in 2025, a 20% reduction in the cost and duration of the certification of rolling stock above the baseline situation in 2025.
- 4.41 This is still consistent with the bullet points set out in paragraph 4.39 and also provides a more challenging target that is still compatible with the study.

4.42 Figure 4.8 below illustrates the linkage between the operational objectives and the specific objectives and how the requirements of the specific objectives are reflected in the operational objectives.

FIGURE 4.8 LINK BETWEEN OPERATIONAL AND SPECIFIC OBJECTIVES



4.43 Having undertaken this analysis and validation we conclude that the modified operational objectives set out above are SMART objectives and are appropriate to the wider general and specific objectives discussed above, and are relevant in addressing the problems identified in the previous chapter.

Measurement of objectives

4.44 The key indicators that drive the operational objectives set out above, and that will need to be measured and monitored going forward are:

- The number of unnecessary national rules;
- The time to market for railway undertakings; and
- The cost and duration of rolling stock certification.

Operational objective 1

To achieve, by 2025, simplification of legislation by the removal of all unnecessary national rules.

- 4.45 The monitoring of this objective will require two mechanisms to be put in place:
- A mechanism to identify national rules not included in the NOTIFIT database
 - A mechanism to identify unnecessary national rules
- 4.46 The first of these will require the national authorities being given a binding deadline for submission of their existing national rules and the Agency having appropriate resources to be able to ensure that they are all registered within the NOTIFIT database at the Commission. While this database is held at the Commission, the knowledge on national rules is held in Valenciennes and as such it should be the Agency that monitors that they have been inserted. This then makes the measurement of all national rules possible.
- 4.47 However, this doesn't allow for the determination of which of these rules are unnecessary. For this, the Agency will need to develop a robust and transparent process using defined criteria for identifying which of the rules are effectively unnecessary thereby being able to categorise them and monitor their removal. This process would need to allow for a potential appeal process where a Member State could appeal to the Commission if it felt that the national rule was unfairly being categorised as unnecessary.
- 4.48 These measuring and monitoring activities would be new for the Agency and as such will require extra resources for them to be put in place. We have developed a specific measure in the next chapter looking at the future role of the Agency with respect to national rules and have then considered the costs and benefits of this extra role (also in terms of administrative costs) within Chapter 6 of this report.

Operational objective 2

To achieve in 2025 a 20% reduction in the time to market for new railway undertakings above the baseline situation in 2025.

- 4.49 The issue of time to market is of primary importance as it affects the financing that a company needs to obtain prior to commercial service, as well as the degree of uncertainty that a company faces before it actually starts to receive revenues from its service. For the purpose of this study, we have adopted the assumption that time to market refers to the total time from the day that an operator places a request for a safety certificate to the day that commercial services begin. We are aware that in some cases this may also be driven by the annual timetable change date and we have allowed for this in our analysis. We have not adopted the start of the period as the date that an operating licence is requested as often an operating licence is requested a long time before the remaining administrative processes for safety certification are set in motion. This would then falsify the results of our analysis and overestimate potential gains.
- 4.50 Given that this operational objective is somewhat subjective we propose that it is monitored by way of interviews (and where possible a questionnaire) with an appropriate selection of stakeholders who could provide their own assessment of time to market for a specific service. This monitoring would be carried out by the Agency as part of its on-going activities, including the results of these surveys as part of its Interoperability Report. We have allowed some additional costs for this monitoring with the Admin costs analysis, but it is unlikely to have a significant impact on the Agency budget requirement going forward.

Operational objective 3

To achieve in 2025, a 20% reduction in the cost and duration of the certification of rolling stock.

4.51 The calculation for cost and time for rolling stock certification is linked to the previous parameter and can be considered a subset of it. The time for certification will be based on the time period between the initial request and the time that authorisation is given to run on the network. We have gathered substantial information on this to be able to provide a reasonable estimate of the current average cost and time for rolling stock certification across Europe. We propose that a similar survey of key stakeholders is carried out in 2015, 2020 and 2025 to be able to provide a similar average to evaluate whether the objective has been achieved and that this is reported within a separate report published by the Vehicle Acceptance Unit within the Agency which sets out progress towards harmonised rolling stock certification.

4.52 The Agency will also need to gather statistics from the various NSAs on the actual time taken to authorise rolling stock (and also equipment). Chapter 6 sets out the impact on the Agency of this monitoring in terms of administrative costs depending on which Option is chosen as a result of the impact assessment.

Specific and general objectives

4.53 We suggest to monitor the position of stakeholders representatives with respect to the specific objectives through a consultation process in the coming years to understand if there is:

- Improvement in the efficiency of safety certification, vehicle authorisation & access granting processes;
- Non Discrimination; and
- An increase the coherence of the national legal framework .

4.54 This consultation could be named “Rail admin barriers barometer”, tied to the Eurobarometer work and might contain questions like the following ones:

- How would you rank the efficiency of the safety certification process? Did you notice any improvement in the past two years?
- How would you rank the efficiency of the vehicle authorisation process? Did you notice any improvement in the past two years?
- Did you notice a reduction in discriminating practices in practices in the granting and recognition of safety certificates? In the interoperability authorisations? In the granting of access to the rail network and services across the EU?
- Did you notice an improvement in the coherence of the different national rules of the rail systems in the EU?

4.55 As for the general objective we believe that it is not feasible to identify indicators that allow to monitor its achievement in quantitative terms over time. Therefore we recommend to base the monitoring of this policy initiative on the basis of the progresses made towards the achievement of the operational and specific objectives indicated above.

5 The policy options

Introduction

5.1 This chapter sets out the analysis that we have undertaken in relation to the policy options. The chapter is divided into four main sections:

- Review of policy measures and stakeholder views;
- Selection of measures (including an initial qualitative assessment of the individual measures);
- Development the policy options; and
- Summary of options.

Review of the policy measures and stakeholder views

Initial description of measures

5.2 Within the terms of reference for this study (included in Appendix E) the Commission identified a number of policy measures that the study should review and consider, alongside an analysis of stakeholder opinions, in order to form a view on the future role of the Agency. These measures are set out below with a brief description of their interpretation for the purposes of this study.

Policy Measures 2.1.1 - 2.3. Extension of the competencies of the Agency vis-à-vis national authorities:

- 2.1.1: Enhanced role of ERA in certification through the setting of an appropriate framework and developing the single European railway certificate - In this role the Agency would taking a leading role in progressing the framework for the single European safety certificate. We note that the Agency is already doing much of this and is currently consulting on the appropriate way forward. A modification to the Safety Directive will be needed for this to be implemented fully with the removal of Part b of the safety certificate.
- 2.1.2: Enhanced “coordination” and supervision role of ERA with respect to NSAs regarding the granting of authorisations of placing into service - This measure would mean ensuring that the Agency had a more active role in coordinating the activities of the NSAs for authorisations for placing into service by agreeing with them a harmonised approach through a Working Group and assisting them in delivering this coordinated approach.
- 2.1.3: Enhanced “coordination” and supervision role of ERA with respect to Notified Bodies regarding type approval and rail vehicle certification - Assisting the NoBos is defining a common approach to documentation review by developing with them a standard approach to follow to reduce the time taken to process requests relating to type approval and vehicle certification.
- 2.1.4: Enhanced “coordination” and supervision role of ERA with respect to Notified Bodies regarding type approval and ERTMS certification - Similar process as per measure 2.1.3 but in relation to ERTMS certification.

- 2.1.5: Enhanced “coordination” and supervision role of ERA with respect to Regulatory Bodies - Assisting the Regulatory Bodies in carrying out their activities by encouraging exchange of best practice and cross audit to understand the manner in which activities are carried out in relation to infrastructure charging and capacity allocation.
- 2.1.6: Control by ERA over the functioning of NSAs (for example by developing guidelines and auditing adherence to them) - In this measure, the activities of the Agency are additional to coordination and require ERA to prepare guidelines on the authorisation of placing into service which NSAs are obliged to follow and which the Agency would then audit to ensure that the NSAs are adhering to the requirements. This measure would not, however, include any enforcement on the part of the Agency in the event that NSAs did not adhere to the guidelines.
- 2.2.1: ERA takes over the competences of the NSAs regarding granting of certificates to the railway undertakings - All activities of the NSAs in relation to the granting of safety certificates would be passed to the Agency. On-going monitoring of requirements in relation to the safety certificates would be carried out by the NSAs.
- 2.2.2: ERA takes over the competences of the NSAs regarding granting of authorisations of placing into service of rail vehicles and other sub-systems - As per measure 2.2.1, but in relation to granting authorisations for placing into service.
- 2.2.3: ERA takes over the competences of the Notified Bodies regarding checking the conformity with the TSIs of the rail sub-systems (including ERTMS equipment) - All activities in relation to checking conformity of TSIs of rail sub-systems are passed to the Agency with the NoBos no longer having any activities in this area.
- 2.2.4: ERA takes over the competences of the Regulatory Bodies regarding supervision over infrastructure managers, in particular as far as cross-border traffic is concerned (subject to the discussion on the recast of the first railway package) - This measure involves the Agency taking over the functions of Regulatory bodies in relation to the supervision of IMs in order to facilitate cross border traffic. The Agency would regulate the IMs initially according to national requirements but would transition to a standard approach at EU level where this was appropriate and necessary and more particularly in relation to the functioning of freight corridors.
- 2.2.5: ERA shares the competences with the NSAs regarding granting of certificates to the railway undertakings (a “one stop shop” for safety certificates)” - This measure would ensure that all requests relating to safety certification would be sent to the Agency who would then forward them directly to the relevant NSA. The parallel here is with RailNetEurope that essentially acts as a middle-man receiving and processing the requests but not having any direct say in the activities of the NSA in processing the requests (exclusively within the scope of this measure, this may then be tied to other measures as discussed below to ensure greater involvement of the Agency).
- 2.2.6: ERA shares the competences with the NSAs regarding granting of authorisations of placing into service of rail vehicles and other sub-systems (a “one stop shop” for interoperability authorisations) - As per 2.2.5, but in this case in relation to authorisations for placing into service.
- 2.3: ERA as an appeal body for some decisions of the national authorities - This measure assumes that the Agency would act as the body that applicants can go to in the event that they are not happy with a decision taken by one of the NSAs. The Agency

would need to set up an appropriate procedure for the appeal process but its review and decision would be final.

Policy Options 3.1 - 3.3. Improve application of existing legislation:

- I** 3.1: Strengthened enforcement of railway legislation - This measure would require the Commission taking stronger action on enforcement in relation to the interoperability and safety directives to ensure proper compliance with the legislation, in particular, in relation to the institutional capacity of national authorities. This would involve, for example, the Commission carrying out audits and inspections of national authorities, with the aim of identifying where resourcing is insufficient or identifying where the powers of the institution are insufficient to meet the requirements of the legislation.
- I** 3.2: Change of the railway interoperability and safety directive into regulations - This measure requires that the current safety and interoperability directives are changed to convert them into Regulations to ensure that these laws become automatically applicable and there is less scope for interpretation. This measure will require the laws to be changed substantially as the Directives are at a less detailed level than Regulations and the Agency/Commission will need to prepare substantial drafting to reflect the use of Regulations.
- I** 3.3: Amendment of the railway directives to enable the adoption by the Commission of implementing measures setting out common principles and practices for the national authorities - This measure requires that the Directives are amended to include clear provisions giving the Commission the right/obliging the Commission to adopt implementing measures specifying how national authorities are to work and carry out their activities in this domain. The Agency, as technical expert, would need to prepare these guidelines, either autonomously, or through a Working Group with the NSAs.

Policy Options 4.1 - 4.7. Other measures:

- I** 4.1: Enhanced role of ERA in monitoring and control of implementation of national safety and interoperability legislation and migrating from national technical and safety rules to a system of EU rules (in order to alert the Commission on cases of incorrect or discriminatory implementation) - This measure would give the Agency a greater role in assessing whether Member States are applying the letter of the law. The Agency would be tasked with doing the evaluation of implementation instead of the Commission, although it would still be the Commission that takes the next steps in terms of launching infringement proceedings.
- I** 4.2: Enhanced role of ERA in the dissemination of railway-related information and training - This measure builds on the work that was carried out for the Evaluation of Regulation 881/2004 that we carried out in 2011, which identified a stronger role for the Agency in providing information and training. The aim of this is to ensure that the sector understands the role of the Agency, what the ultimate goal of interoperability and safety directives are and to ensure that there is a common understanding of the legislation. The role of the Agency in this area would be to organise training seminars in the various Member States as well as to prepare explanatory documents on these area.
- I** 4.3: Enhanced role of ERA in providing advice and support for Member States and other stakeholders in implementing EU legislation on safety and interoperability - This relates to the Agency providing detailed guidance on the manner in which Member States

should apply the relevant legislation. This would be in addition to the training activities in measure 4.2 above and would be State specific advice on implementation which could be in the form of seminars within Member States on the approach that the Agency would prefer in relation to implementation. This may also include Agency staff being seconded to national authorities to facilitate implementation of legislation.

- 4.4: Enhanced role of an EU body in providing advice in building capacities in Member States to design, implement and manage relevant investment projects - This measure focuses specifically on providing assistance and setting up an appropriate national capability to specify the requirements of the network appropriately, in particular in relation to relieving bottlenecks. This assistance could be in the form of seminars being provided by the Agency, but also potentially secondment of Agency staff within national institutions to help build up this capacity. For this measure, the Agency would need to build up its own capacity with appropriate skills to be able to support this task.
- 4.5: Enhanced role of ERA in providing advice and support for Member States and other stakeholders in deploying and operating telematic applications - In its role as technical body for the sector, this measure would see the Agency taking a stronger role by suggesting the appropriate strategy that Member States should adopt in relation to the deployment of telematics applications. This would be a hands-off role and would not impose any requirements on Member States. The Agency would suggest processes for implementing the requirements going forward and building on the experience developed by the Agency in areas such as ERTMS. This would still leave the final decisions to the Member States that would be bound by other (budgetary) constraints.
- 4.6: Communication from the Commission regarding guidelines on the interpretation of specific EU laws and decisions (including Technical Specifications for Interoperability) - The Commission for this measure would prepare a communication, based on the work of the Agency, setting out how these instruments are to be interpreted. This would be a multi-stage process as the Commission would first need to publish guidelines on all legislation and decisions that have been undertaken to date and then proceed to set a process of preparing and presenting such guidelines in conjunction with the publication of future decisions, Directives or Regulations (including TSIs). The Commission would only be responsible for publishing these guidelines, while the Agency would be required to actually prepare them.
- 4.7: Enhanced role of ERA in identifying potential spare parts to be standardised and coordination of industry activities in this area - Given problems that have been identified by a number of stakeholders, it may be appropriate for the Agency to have a stronger role in identifying where efficiencies can be gained within the sector through an appropriate standardisation of spare parts. The activities of the Agency in this area relate primarily to establishing and leading a Working Group of stakeholders with the aim of gathering industry parties to identify which spare parts could effectively be standardised and at what cost/benefit for the sector. This measure currently assumes a collaborative approach, as per the current ERA processes, rather than something that the Agency would run in autonomy and impose on the industry.

Stakeholder views on the measures

In preparing the on-line survey for the stakeholder consultation we subsequently modified this list to make it easier for stakeholders to provide their opinions and also to provide a more exhaustive list of the possible measures to be evaluated.

- 5.3 Table 5.1 below provides this full list with the modified or added questions shaded in grey.
- 5.4 In particular, in addition to the extra details provided for measures 2.3 and 4.1, we agreed with the Commission to add:
- 4.8: Modify the directive with a view to limit/remove the possibility for MS to adopt new national rules. - This measure aims to limit the possibility of MSs to create more barriers to entry and to set a clear baseline on national rules to facilitate their elimination in the long run. We have assumed that this measure will prevent MSs from being able to introduce new national rules through a specific provision in the Interoperability Directive, but allowing MSs to introduce new national rules only when they have been approved by the Agency and are justified under a clearly defined set of predetermined criteria established by the Agency.
 - 4.9: Setting up a European passport for locomotives (single vehicle authorisation) - This measure has the effect of setting a standard template for locomotives that will facilitate and ensure that minimal (only registration) costs and processes are needed by NSAs for authorisation of locomotives. The Agency would define this passport and set out how it can be applied to different locomotives. This work will need to be in conjunction with the manufacturers and the NSAs to ensure that there is an agreed approach that can be applied across the EU. Initially, this would be made available for a subset of (new) locomotive types with a possible extension of the passport to older rolling stock. The aim of this passport would be to facilitate route acceptance through comparison with the infrastructure register for individual networks. Subsequent to the stakeholder consultation the name of this measure was changed and widened to become the single vehicle authorisation in order to creating a harmonised and structured approach to vehicle authorisation that seeks to minimise the necessity of having differentiated authorisation processes. The Agency would define this single authorisation process and ensure that NSAs are applying the process effectively.
- 5.5 The responses that we received in relation to the appropriateness of each of the measures and a brief commentary on the individual results are set out in detail in Appendix B which provides all the stakeholder responses to the on-line survey.
- 5.6 Table 5.1 below takes each of these measures and provides a summary of the responses in terms of the stakeholder views on their appropriateness.
- 5.7 The scores reflect the results of the stakeholder analysis where a “++” score relates to a greater than 60% positive view, “+” means that between 50% and 60% of respondents gave a positive view, “-” indicates more than 60% gave a negative view, “--” means that between 50% and 60% of respondents gave a negative view, 0 denotes where there was no outright majority of opinion.

TABLE 5.1 SURVEY RESPONSES FOR MEASURES

Option	Score
2.1.1: Enhanced role of ERA in certification through the setting of an appropriate framework and developing the single European railway certificate.	++
2.1.2: Enhanced “coordination” and supervision role of ERA with respect to NSAs regarding the granting of authorisations of placing into service.	++
2.1.3: Enhanced “coordination” and supervision role of ERA with respect to Notified Bodies regarding type approval and rail vehicle certification.	++
2.1.4: Enhanced “coordination” and supervision role of ERA with respect to Notified Bodies regarding type approval and ERTMS certification.	++
2.1.5: Enhanced “coordination” and supervision role of ERA with respect to Regulatory Bodies (depending on developments in the rail recast).	-
2.1.6: Control by ERA over the functioning of NSAs (for example by developing guidelines and auditing adherence to them).	++
2.2.1: ERA takes over the competences of the NSAs regarding granting of certificates to the railway undertakings	-
2.2.2: ERA takes over the competences of the NSAs regarding granting of authorisations of placing into service of rail vehicles and other sub-systems	-
2.2.3: ERA takes over the competences of the Notified Bodies regarding checking the conformity with the TSIs of the rail sub-systems (including ERTMS equipment)	--
2.2.4: ERA takes over the competences of the Regulatory Bodies regarding supervision over infrastructure managers, in particular as far as cross-border traffic is concerned (subject to the discussion on the recast of the first railway package)	--
2.2.5: ERA shares the competences with the NSAs regarding granting of certificates to the railway undertakings (a “one stop shop” for safety certificates”)	0
2.2.6: ERA shares the competences with the NSAs regarding granting of authorisations of placing into service of rail vehicles and other sub-systems (a “one stop shop” for interoperability authorisations): an application is sent to ERA, relevant NSAs are consulted, ERA takes the decision	0
2.3.1: ERA as an appeal body for some decisions of the NSAs relating to placing into service	+
2.3.2: ERA as an appeal body for some decisions of the NSAs relating to safety certification	++
2.3.3: ERA as an appeal body for some decisions of the Notified Bodies	+
2.3.4: ERA as an appeal body for some decisions of the Regulatory Bodies	-
3.1: Strengthened action by the Commission outside infringement procedures, notably on non-discrimination in the railway market	+
3.2: Change of the railway directive into regulations	+

3.3: Amendment of the railway directives to enable the adoption by the Commission of implementing measures setting out common principles and practices for the national authorities	+
4.1.1: Enhanced role of ERA in monitoring and control of implementation of national safety and interoperability legislation	++
4.1.2: Enhanced role of ERA in migration from national technical & safety rules to a system of EU rules	++
4.2: Enhanced role of ERA in dissemination of railway-related information and training	++
4.3: Enhanced role of ERA in providing advice and support for Member States and other stakeholders in implementing EU legislation on safety and interoperability	++
4.4: Enhanced role of an EU body in providing advice in building capacities in Member States to design, implement and manage relevant investment projects	0
4.5: Enhanced role of ERA in providing advice and support for Member States and other stakeholders in deploying and operating telematic applications	+
4.6: Communication from the Commission regarding guidelines on the interpretation of specific EU laws and decisions (including Technical Specifications for Interoperability)	+
4.7: Enhanced role of ERA in identifying potential spare parts to be standardised and coordination of industry activities in this area	+
4.8: Modify the directive with a view to limit/remove the possibility for MS to adopt new national rules	+
4.9: Setting up European passport for locomotives (this passport would contain a summary of the main technical parameters - it would facilitate route acceptance through comparison with the infrastructure register)	0

Note: ++ indicates more than 60% of respondents gave positive view, + indicates more than 50% gave a positive view, -- more than 60% gave a negative view, - more than 50% gave a negative view, 0 denotes where there was no outright majority. Shaded rows indicate new measures that were inserted or split into multiple questions in the survey.

Selection of measures

5.8 As part of our analysis we undertook a rigorous screening process in the selection of the appropriate measures to implement in the impact assessment options. This screening is set out in Appendix C, but the key provisions can be summarised as follows:

- Removal of those measures relating to giving the Agency a greater role in relation to Regulatory Bodies (measures 2.1.5, 2.2.4 and 2.3.4);
- Removal of those measures relating to the Agency taking over all activities of the NoBos (2.2.3 and 2.2.4);
- The removal of those measures that did not have an impact on the problems identified in Chapter 3 or could easily be achieved by other means (for example measure 4.4 above);

- The creation of an intermediate measure in relation to the role of Agency with respect to the NSAs that are more than just one-stop-shop, but less that the Agency completely taking over the activities of the NSAs (2.2.X and 2.2.Y);
- The creation of measure 4.10 relating to the accreditation of NoBos (which is subsequently merged into a separate measure);
- The merging of measures to ensure that there is a coherent subset of measures that can be looked at and evaluated in detail.

5.9 The final, adopted measures are set out in Table 5.2 below. Where we have identified the removal of a measure, the removal has taken place primarily in order to ensure that the policy options best reflect the objectives and best address the problems that we have discussed above. Nevertheless, with the removal of the measures related regulatory bodies it has also been necessary to reword specific objective 2 as discussed in Chapter 4, this has not had an effect on the extent to which any of the problem drivers are addressed.

Development of the Policy options

- 5.10 The section below builds on the analysis above and that set out in Appendix E and defines in more detail the policy options selected for the impact assessment, including the actions that will result from the individual measures that form each of the policy options.
- 5.11 For the purpose of the stakeholder survey we consulted on the individual policy measures set out above, but for the follow-up discussions we proposed a more detailed refinement for the final policy options so as to be able to compile the most appropriate groupings (or packages) possible.
- 5.12 Drawing on the survey results for the individual policy measures, the discussions with stakeholders and on our assessment of the options, we have defined the following Policy Options (that are likely to best address the problems identified in Chapter 3 and meet the objectives set out in Chapter 4):
- Option 1: Baseline scenario (Do nothing - continuing on the path that is currently set out for the sector as per the description set out at the end of Chapter 3)
 - Option 2: Greater coordination role for the Agency (in ensuring a consistent approach to certification and authorisation)
 - Option 3: ERA as a one-stop-shop (where the final decision on certification and authorisation remains with the NSAs)
 - Option 4: ERA & NSAs share competencies (where the final decision on certification and authorisation is taken by the Agency)
 - Option 5: ERA takes over activities of NSAs regarding authorisation & certification (relating NSA authorisation and safety certification, but not ongoing auditing and national monitoring activities)
 - Option 6: Horizontal measures (other legislative changes and Agency tasks that could be implemented to improve the competitiveness of the rail sector)
- 5.13 The composition of the various options in relation to the measures discussed in Appendix C is set out in the table below. They are then discussed individually in detail. For presentational reasons we have put Options 1 to 5 across the top of the table and left Options 6 as a row rather than an additional column as it serves as a horizontal option

across all other options. In this chapter we discuss the various options independently and in the next chapter look at the impact of combining Option 6 with the other options. These options have been labelled in such a way as to define the changing role of the Agency with respect to NSAs, but the options actually encompass a wider range of tasks.

- 5.14 In developing each of the options we have included as many of the measures set out in Table 5.1 as possible. In some cases these have been slightly modified as a result of the discussions we have had with stakeholders and the analysis in Appendix C. These options include only those measures that have been retained following the option sifting described in Appendix C. We have excluded from our analysis further sub-options of introducing some of these measures into the sector on a phased basis, for example by introducing coordination/One-Stop-Shop/ One-Stop-Shop with national subsidiaries/full control on corridors initially or in certain markets.
- 5.15 Each of the Options 2 to 6 are assessed as incremental to the Baseline scenario - Option 1. They are summarised in Table 5.2 and discussed further below.

TABLE 5.2 SUMMARY OF POLICY OPTIONS

Option 1	Option 2: Further ERA “Coordination” over NSAs	Option 3: ERA as One-Stop-Shop, with NSAs retaining their powers	Option 4: ERA & NSAs share competencies	Option 5: ERA takes over activities of NSAs regarding authorisation & certification
1.0.0 Baseline	2.1.2: Enhanced “coordination” and supervision role of ERA with respect to NSAs regarding granting of vehicle authorisations & safety certificates including ensuring their mutual recognition by national authorities.	2.2.B: ERA shares the competences with the NSAs regarding granting of safety certificates to the railway undertakings and vehicle authorisations (“one stop shop” concept): the decision is taken by NSA, ERA performs “entry and exit” checks of the application.	2.2.Z: ERA shares the competences with the NSAs regarding granting of safety certificates & vehicle authorisations: a “one stop shop” concept with the NSAs (acting as regional offices of ERA) contributing but the final decision rests with ERA.	2.2.C: ERA takes over the competences of the NSAs regarding granting of certificates to the railway undertakings and vehicle authorisations.
		2.3: ERA as an appeal body for some decisions of NSAs		
		2.1.1a + 4.9a: Migration to a single (common) safety certificate and single vehicle authorisation (setting up European “passport” for vehicles): <u>national authorities issue</u> single safety certificates & single vehicle authorisations (mutually recognised by definition)	2.1.1b + 4.9b: Migration to a single (common) safety certificate and single vehicle authorisation (setting up European “passport” for vehicles): <u>ERA issues</u> single safety certificates and single vehicle authorisations (Appeals to ERA decisions are sent to a separate appeal body)	
	2.1.6: Control by ERA over the functioning of NSAs (e.g. developing guidelines & auditing adherence to them).	2.1.B: Enhanced “coordination” and supervision role of ERA with respect to Notified Bodies regarding: type approval; rail vehicles certification; ERTMS certification and accreditation of NoBos.		
Option 6: horizontal measures (independent of the level of interaction ERA/national authorities)	3.1: Strengthened action by the Commission outside infringement procedure, notably on non-discrimination in the railway market			
	3.3: Amendment of the directives to enable the adoption of implementing measures setting out common principles & practices for national authorities			
	4.1.1: Enhanced role of ERA in monitoring and control of implementation of national safety and interoperability legislation			
	4.1.2: Migrating from national technical & safety rules to a system of EU rules through clear requirement of national rules need to be removed by national authorities with national authorities tasked with the role of removing them and limiting their possibility of adopting new rules.			
	4.2: Enhanced role of ERA in dissemination of railway-related information and training.			
	4.3: Enhanced role of ERA in providing advice & support for Member States & other stakeholders in implementing legislation on safety & interoperability			
	4.6: Communication from the Commission regarding guidelines on the interpretation of specific EU laws & decisions (including TSIs)			
4.7: Enhanced role of ERA in identifying potential spare parts to be standardised and coordination of industry activities in this area				

Option 1: Baseline scenario (Do nothing)

- 5.16 This option sets out the baseline scenario for the analysis going forward. All other options will be measured against this option.
- 5.17 This option assumes no substantial changes to the current legislation and:
- the adoption of the Rail Recast in its current form;
 - the possibility of the scope to be extended on existing TSIs, but with no retroactive clauses;
 - An improved understanding of Railway Directives and Regulations through the publication of the so-called “DV29bis” which builds on the success of Recommendation 2008/217 (DV29) and goes into more detail on the manner in which Member States should implement legislation along with other on-going activities of the Agency;
 - On-going activities relating to migration to the single railway certificate;
 - Increased implementation of the Railway Directives; and
 - Improved staff resources in the major NSAs.
- 5.18 These actions are discussed in more detail within Chapter 3 along with the reasoning behind why the actions in this Option are not sufficient to substantially decrease administrative and technical barriers that are hindering the competitiveness of the rail sector.

Incremental options

- 5.19 For all subsequent options we have assumed that the Agency would also need to change its role vis-à-vis the Commission. Primarily (apart from otherwise specified) it would need to be able to make binding decisions without going through the current process of making recommendations to the Commission. This requires both greater power and greater competencies for the Agency as well as a greater number of staff depending on the option pursued. The resource requirements for the Agency are examined in Chapter 6. Within this Chapter we highlight the high level definition of each of the options and set out greater detail on the selected options in Chapter 7, including the legislative changes required.

Option 2: Greater coordination role for the Agency

- 5.20 As the first incremental step the study will look at a more enhanced role for the Agency which foresees the Agency getting more involved in the activities of the national authorities, but without affecting their decision making process. This option assumes that all aspects of Option 1 are taking place and adds the following additional measures:
- 2.1.2: Enhanced “coordination” and supervision role of ERA with respect to NSAs regarding granting of vehicle authorisations & safety certificates, including ensuring their mutual recognition by national authorities.
 - 2.1.B: Enhanced “coordination” and supervision role of ERA with respect to Notified Bodies regarding type approval and rail vehicle and ERTMS certification, as well as accreditation of NoBos.
 - 2.1.6: Control by ERA over the functioning of NSAs (for example by developing guidelines and auditing adherence to them).

Measures relating to a greater coordination role for the Agency (2.1.2, 2.1.B)

- 5.21 For the purpose of this study we define coordination as being the Agency providing oversight on the activities of NSAs and, in particular, setting the framework for the activities of the NSAs and NoBos.
- 5.22 This greater coordination role needs to be undertaken through the following activities:
- Defining the manner in which NSAs are to carry out their activities;
 - Setting the manner in which NoBos are to carry out their tasks;
 - Auditing the NSAs and NoBos to ensure that they are adhering to the agreed processes; and
 - Setting the appropriate framework for the manner in which the NoBos are certified.
- 5.23 These activities may be articulated in the following manner (and by definition also cover measure 2.1.6):
- Step 1: Set up a working group of the NSAs and another working group of the NoBos, each chaired by the Agency. These working groups would be tasked with developing and defining clear guidelines on ensuring mutual recognition of safety certificates and vehicle authorisations between national authorities;
 - Step 2: Conclude the working groups and the Agency to then propose a recommendation to the Commission that should become a Regulation on these guidelines and which then must be applied by all Member States;
 - Step 3: Each NSA implements the agreed guidelines;
 - Step 4: The Agency collects and monitors annual data from NSAs on the number of authorisations and the average time taken to carry out the authorisation;
 - Step 5: The Agency carries out at least 5 audits a year on the NSAs (or NoBos) to ensure that they are adhering to the guidelines.
- 5.24 Steps 1, 2 and 3 are not likely to be immediately possible given the approach to the definition of the Work Programme of the Agency, but for the purpose of this option we will assume that these steps will be completed by 2017 given also the average time it takes to conclude working parties and the subsequent process of Regulations to receive approval of the RISC. Step 4 can be initiated almost immediately with the help of NSAs and we assume that Step 5 can only occur from 2018 after establishment of the Regulation. The quantification of the impact on time to market and cost to market of this activity will be assessed in the modelling activities for Phase 3 of this impact assessment study. A reduction in the time taken for authorisation and a consequential reduction in costs can be expected, but the latter is likely to be less than the time impact.
- 5.25 The second part of measure 2.1.6 relates to part of the problem identified in the case studies in relation to the incorrect functioning of the national frameworks - the role of the infrastructure manager. The case studies have revealed examples of where the infrastructure manager has also hindered vehicle authorisation in Italy and France as a result of its practices and requirements in relation to the releasing of paths for train testing. It is up to the NSAs to ensure that the infrastructure manager does provide the correct paths for the testing to take place. However, in its coordinating function, ERA should also specify when infrastructure managers can limit vehicle acceptance tests on the

network. We have included the effects of this within the measures tied to the role of the NSA authorisation process.

- 5.26 This option also assumes that mutual recognition of both vehicle authorisations and safety certificates. For this to happen the Agency will need to ensure that it clearly defines what it is that needs to be mutually recognised in terms of tests and documents. This will require activities within the working groups, but will continue to be facilitation work aimed at encouraging the industry players to come to an agreed structure for mutual recognition with Agency facilitation.

Option 3: ERA as a one-stop-shop

- 5.27 This intermediate option builds on Option 1 and incorporates some of Option 2 but assigns more power to the Agency in relation to the manner in which NSAs undertake their activities. In particular this option assumes:

- 2.1.1a and 4.9a: Migration to a single (common) safety certificate and single vehicle authorisation (setting up European "passport" for vehicles): National authorities issue single safety certificates & single vehicle authorisations (mutually recognised by definition).
- 2.2.B: ERA shares the competences with the NSAs regarding granting of safety certificates to the railway undertakings and vehicle authorisations ("one stop shop" concept): the decision is taken by NSA, ERA performs "entry and exit" checks of the application.
- 2.3: ERA as an appeal body for some decisions of the national authorities

- 5.28 In addition it will assume the following measures of Option 2:

- 2.1.B: Enhanced "coordination" and supervision role of ERA with respect to Notified Bodies regarding type approval and rail vehicles and ERTMS certification, as well as accreditation of NoBos.
- 2.1.6: Control by ERA over the functioning of NSAs (for example by developing guidelines and auditing adherence to them).

- 5.29 The Agency is already in the process of consulting on the single safety certificate and on the Agency, in the role of project manager, facilitating the migration to the single certificate. The activities within this option would take these to the next level by requiring an acceleration of the timescales (currently estimated for 2020) for migration to a single safety certificate through a more active role of the Agency in defining the structure of the certificate and then consulting on its appropriateness. This would also involve the Agency getting more actively involved in assisting the Member States in implementing the requirements of the new regime and is thus tied to a number of the individual measures in Option 6. Accelerating this process will have a significant impact on the efficiency of safety certification and should substantially reduce the potential for discrimination in the granting of safety certificates. In this option, the single safety certificates would, however, continue to be issued by the national authorities. This would increase certainty (for Railway Undertakings) over the previous options while still leaving the NSAs some room in the decision making process.

- 5.30 The measure relating to the single vehicle authorisation seeks to address the issues of delays in the authorisation process mentioned in a number of the case studies and evidence referenced in Chapters 2 and 3. Introducing such a passport would have the goal of certifying that a vehicle type conformed to TSIs and to a harmonised list of technical characteristics for the European network, thus removing the need for re-authorisation and thereby reduce the overall time to get rolling stock into service on the network. As a result there would be fewer aspects that an NSA would need to check in authorising rolling stock. The role of the Agency would be to define the specifications for this passport and the list of technical requirements that would have to be respected for the vehicle to be authorised. As per the single safety certificate, the single authorisation would, however, continue to be issued by the national authorities. This would provide increased certainty over Options 1 and 2, while still leaving the NSAs some room in the decision making process.
- 5.31 Regarding 2.2.B, the Agency has a more active role in the sector, especially in relation to the NSAs. In particular, the Agency shares the competencies of the NSA activities through a One-Stop-Shop role similar to that undertaken by RailNetEurope in the allocation of capacity for international rail services.
- 5.32 In this specific option, all the requests would initially be sent to the Agency, where they would carry out a high level analysis in the form of “entry and exit checks” to ensure that there are no major issues with the application (and thereby avoiding the NSAs rejecting the application or spending additional time reviewing the outputs of the NoBos). The Agency would then pass the request on to the relevant NSAs who would then carry out their national analyses. Guidelines for this process would need to be developed following a similar approach to that set out in the step by step process described for the Option 2.
- 5.33 In its role as a One-Stop-Shop, the Agency would also act as an appeal body for decisions that are taken by the NSAs. As it would not have an active role in approving or otherwise the applications that it receives, it could still act as an independent appeal body without affecting its other activities. The role of the appeal body would create further certainty in the sector and give applicants the ability to call into question non-transparent decisions by the NSAs. The impact would, however, be limited to a deterrent effect rather than anything else, as we have understood from stakeholders that they are generally reluctant to appeal or contest decisions made by NSAs as these could have a negative impact on future applications for vehicle or equipment acceptance. The role of appeal body would be appropriate also as the Agency will have detailed knowledge of the processes that have been put in place by the various NSAs and as such will be able to assess these activities in detail. This would not be in conflict with its role in the safety certification and vehicle authorisation process as the Agency is not making any final decisions in this process.
- 5.34 In terms of process, the Agency would need to define firstly the extent to which it could deal with appeals and secondly the process for appeals. In the first case it would have to defer any appeals related to the structure of the authorisation or certification process to a higher/other body (we would suggest the nomination of an independent ombudsman which we discuss further below) as the Agency would have been one of the architects of the process. It is important to note, however, that the majority of appeals would relate to the manner in which the procedures mentioned above are being applied rather than the procedures themselves. In the second case it would need to define the appeal process in

terms of timescales and approach which would need to be suitably quick (and faster than current Technical Opinions) in order for them to be effective.

- 5.35 This would be a valuable role for the Agency going forward in an environment where it has no direct control, as it provides applicants with an independent body to go to for a binding opinion. It is not clear whether the existence of such a power would have an effect on the reluctance of applicants to appeal/complain for fear of future reaction by the corresponding NSAs.
- 5.36 The benefit of such an approach would be that applicants would only have to put together one request for authorisation in multiple Member States (although it would need to be in the various languages that they are applying for in relation to the national rules) and the Agency would then be in charge of following the process for the applicant in terms of requesting progress, but only as a “middle-man” not in terms of meeting requests for extra information that are made by the NSAs. This clearly leaves the ultimate decision making to the NSAs in relation to certification and authorisation to the NSAs which would, however, be bound by specific timescales and processes in relation to safety certification and vehicle/ERTMS authorisation.
- 5.37 Although this option requires more involvement on the part of the Agency in the activities of the industry, especially in relation to the activities of NSAs, there would be few changes required from the point of view of the NSAs and the Agency (other than the extra staff needed for the activities related to managing the processes and interface with the NSAs and the appeal activities of the Agency). As such, we would assume that the timescales for implementation of this option would be similar to those of the Option 2 and we will model this option on a similar basis. However, this option is likely to have a greater effect on time to market and cost to market than Option 2 as well as the cost of rolling stock authorisation.

Option 4: ERA & NSAs share competencies

- 5.38 The basis of this option is that the Agency would be the central body receiving and processing any requests for safety certification or vehicle/equipment authorisation. It would not hold the majority of the required competencies in Valenciennes, but would continue to rely on NSA staff to carry out the relevant activities within Member States where the NSAs would be subordinate to the decisions and direction of the Agency. In this case, the NSAs would report to an EU body, the Agency, rather than to national authorities.
- 5.39 The NSAs would still be tasked with carrying out the compliance checks with national rules, but the existence of national rules would decrease at a greater rate than the approach adopted in the previous options, as the Agency would have an additional overarching goal of diminishing and eventually removing national specific rules. The following elements would be key to this option:
- 2.1.1b and 4.9b: Migration to a single (common) safety certificate and single vehicle authorisation (setting up European "passport" for vehicles): ERA issues single safety certificates & single vehicle authorisations.

- 2.2.Z: ERA shares the competences with the NSAs regarding granting of certificates to the railway undertakings and vehicle authorisations to applicants (a "one stop shop" for safety certificates and vehicle authorisation) where the final decision rests with ERA.
- 5.40 Option 4 also assumes the following measure in common with Options 2 and 3:
- 2.1.B: Enhanced "coordination" and supervision role of ERA with respect to Notified Bodies regarding type approval and rail vehicle and ERTMS certification as well as accreditation of NoBos.
- 5.41 The role of the appeal body would be in contrast to the other activities set out in this Option and as such is not part of the analysis. Firstly, because it would have a greater control of the functioning of the NSAs, but also because it couldn't be the appeal body for decisions that it made unless the appeal function of the institution was separated out. For this assessment we have assumed that an independent ombudsman would be the appeal body rather than a judicial authority, which should speed up the processing times for the appeals. The decision of this ombudsman would be binding on both parties and legislation would need to change to reflect this role.
- 5.42 Measure 2.1.6 would no longer be necessary as the Agency would in any case be giving this direction to the NSAs acting as its regional offices.
- 5.43 This option exerts the level of control over the NSAs that some stakeholders have mentioned as being necessary for the correct functioning of a European system. This is achieved by definitively removing the power of national authorities to pursue independent practices, whilst at the same time leaving the NSAs the skills necessary to do the relevant checks in relation to national rules and also the ability to retain expertise within the sector. While this option would require some additional resources for this activity within the Agency (which we discuss in Chapter 6), it would only be in the form of minimal Agency staff being based within the NSAs to supervise the national experts and make the decisions. The goal would be that in the (very) long term, with the migration to EU rules set out in measure 4.1.2 and greater direction from the Agency, these NSAs would become less and less necessary in relation to safety certification and authorisation issues, although we estimate that they would still need to continue in existence for at least 15-20 years while issues related to the continued existence of national technical characteristics remained. In parallel, staff related to other activities of the NSAs such as those tasked with carrying out national audits would remain within the NSAs.

Option 5: ERA takes over all activities of the NSAs regarding authorisation and certification

- 5.44 This option is the most ambitious in terms of the extending the future role of the Agency. It assumes that the Agency would take over all safety certification and authorisation activities currently undertaken by the NSAs. This would involve the Agency expanding its facilities and establishing local offices in each Member State (or at least in the larger Member States or regional hubs). All staff involved in these activities would be employed by the Agency. It is assumed that the Agency would continue to be subject to the same European Commission administration and employment procedures for all of its activities. The key measure in this option is:

- 4.1.1: Enhanced role of ERA in monitoring and control of implementation of national safety and interoperability legislation (in order to alert the Commission on cases of incorrect or discriminatory implementation).
 - 4.1.2: Migrating from national technical and safety rules to a system of EU rules through a clear requirement of what national rules need to be removed by national authorities with the national authorities tasked with the role of removing them and limiting the possibility of national authorities to adopt new rules.
 - 4.2: Enhanced role of ERA in dissemination of railway-related information and training.
 - 4.3: Enhanced role of ERA in providing advice and support for Member States and other stakeholders in implementing EU legislation on safety and interoperability.
 - 4.6: Communication from the Commission regarding guidelines on the interpretation of specific EU laws and decisions (including Technical Specifications for Interoperability).
 - 4.7: Enhanced role of ERA in coordination of industry activities regarding railway equipment, especially ERTMS and spare parts.
- 5.52 This option is made up of a number of measures that have a wide reaching impact on the industry as a whole, but do not impact directly the role of the Agency with respect to NSAs or NoBos and as such have been grouped into this one option.
- 5.53 The first of these measures, measure 3.1, is in relation to strengthened action by the Commission in terms of enforcement of the railway Directives and Regulations. For the purpose of this measure, this has been limited to the functioning of the national institutions, as the implementation itself is dealt with in other measures. As mentioned above, this would take the form primarily of inspections and audit of the national institutions to ensure that they meet specific requirements. As a first step, the Commission would provide guidelines of the manner in which the institutions are to be structured in terms of resources (both financial and staffing) and independence in order to ensure that there is a clear and common understanding of the ideal support. Subsequent to this, it will need to audit the national institutions to ensure that they are adhering to the requirements.
- 5.54 This measure would address all the problems defined in Chapter 3 that relate specifically to insufficient resources and to the level of independence of the national institutions. While the auditing will be carried out on the NSAs, NoBos and Regulatory Bodies, the enforcement will need to be directed to the Member States rather than these bodies as it is the Member State that is responsible for setting the requirements of those entities. We have not analysed what these specific requirements should be, but we envisage they would cover such issues as the minimum number of suitably qualified staff depending on the size of the market, as well as a process for reviewing these resourcing requirements going forward. We acknowledge that in many Member States any such change is likely to be accompanied by a requirement not to increase the burden on the national public expenditure. The Commission will need to determine an appropriate clause to avoid this potential conflict. The requirements could be mandated within a timeframe of 2 years and could be included in the wider provisions of the 4th Package. However, more time will be required for the provisions to then be applied at a national level, given current budgetary restrictions.

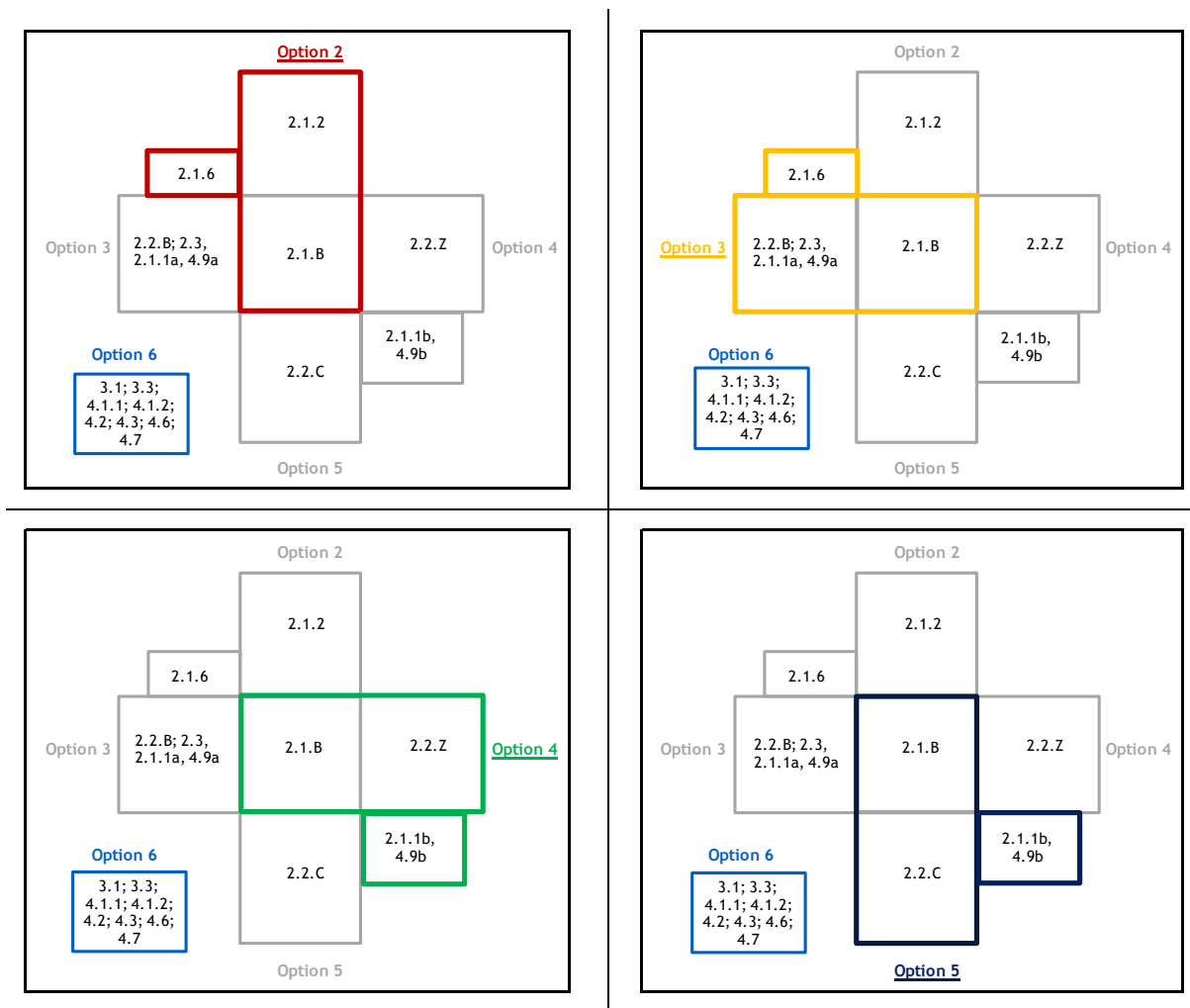
- 5.55 This option also assumes that the Agency will have a greater role in monitoring and control of implementation of the Directives related to Safety and Interoperability (measure 4.1.1). This role would be limited to monitoring and control rather than enforcement, which in this option would remain with the Commission following recommendations from the Agency. This activity would involve the Agency reviewing the legislation as it has been implemented in each Member State, through the carrying out of criteria based studies that seek to identify that the legislation has been implemented both in the spirit and letter of the law. The Agency would then publish its findings in the form of recommendations to the Commission which would then take any necessary action in terms of infringement proceedings. It is important that this task is seen not only as a stick, but also as a carrot. In other words, this monitoring should also focus on incentivising implementation following best practices of individual Member States that can be replicated in other countries.
- 5.56 Related to this are also Measures 4.2 (regarding increased dissemination and training) and 4.3 (regarding an enhanced role of ERA in providing advice & support in implementing legislation) which must be included in this framework, as they are fundamental to ensuring that any *ex post* activities, such as monitoring or enforcement, become less necessary as the Agency would be providing both the appropriate training to stakeholders on railway related information and also assisting Member States in the proper implementation of the Directives and Regulations. These two measures can provide quick (if not large) wins for the sector to avoid errors in the implementation of national legislation that then have to be rectified at a later date (for example due to poor translations, such as has been identified in the Hungary case study in Appendix A). This will also help promote an understanding of the spirit as well as the letter of the Directives and Regulations that become law.
- 5.57 The Agency is already doing some of these activities through its monitoring of the Safety Directive which is driving the new “DV29bis” project. This activity would need to be extended and formalised but, given that the activity is already underway for some aspects of legislation, it would be possible for this to be done in shadow form from the implementation of the next Work Programme and be fully operational by the time the relevant legal amendments to the Directives are made to include this role in 2015. The implementation of these activities is likely to result in a more harmonised approach to laws across the EU and a reduction in barriers to entry resulting from different interpretation of Directives.
- 5.58 Implementation guidelines (4.6 above) for the interpretation of EU laws to be published in conjunction with the Directive/Regulation in the Official Journal will need to be introduced in conjunction with the development of implementing measures (3.3 above) by the Commission, who will need to ensure that appropriate action is taken in the implementation of the laws. Both of these will be necessary to enable Member States to implement national laws effectively and avoid the Commission needing to initiate infringement proceedings.
- 5.59 Measure 4.1.2 identifies a potential role for the Agency in further assisting in migrating from national rules to EU rules. The Agency has already started this task in that it is identifying what the national rules are and setting up a database to list them all. This is expected to be completed by December 2013 and will hold a large number of rules. The Agency is also seeking to identify all the national rules relating to vehicle acceptance,

with the aim of identifying which are common across Member States and can therefore be removed. Following from this, the Agency would then require the Member States to remove those unnecessary national rules and in addition to this limit those new national rules that could be implemented by requiring that all national rules would not only need to be notified by the Agency, but would also need to be approved for insertion into national legislation before they become legal acts. For this to happen the Agency would need to define the criteria that it would apply in selecting whether a national rule was acceptable or otherwise. An additional role for the Agency would be to define a clear process for moving from the current national rules to a body of integrated EU rules through a more detailed understanding of each of the national rules and understanding where there are commonalities that can be removed. The Agency has estimated that the “clean-up” of all national rules is likely to bring about total savings for the industry in terms of capital expenditure that amount to over €100 mil.

Summary of options

- 5.60 The figure below summarises how the various measures fit into the options that we have defined above and where they have individual measures that overlap. We have also highlighted for each of quadrants, the elements of Option 6 as it will be tied to each of Options 2 to 5 (but not to the Baseline Option 1).

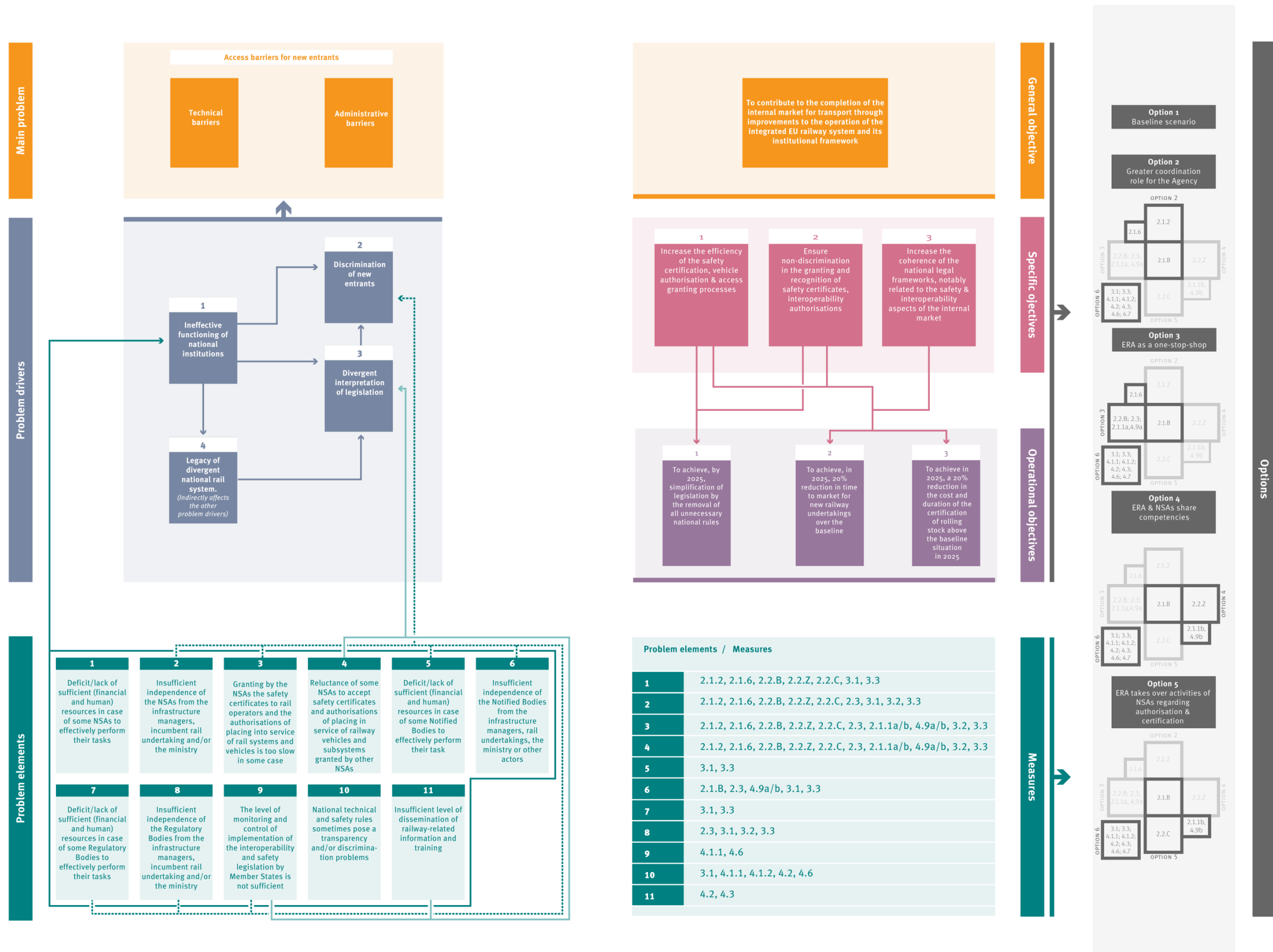
FIGURE 5.1 SCHEMATIC STRUCTURE OF OPTIONS



Note: The figure above does not include the baseline scenario - option 1.

- 5.61 The Options that have been defined above have been taken forward to the impact assessment in their current form with the aim of identifying which Option provides the best result for the industry. The next Chapter sets out the approach that we have used in assessing the individual Options which have been assessed from both a quantitative and a qualitative point of view, with the aim of addressing the various problems and meeting the objectives that are set out in Figure 5.2 below.
- 5.62 The figure below summarises the entire impact assessment process from the problem, through the objectives to the policy options, showing the links between the different elements of this support study.

FIGURE 5.2 IMPACT ASSESSMENT PROCESS: PROBLEMS, OBJECTIVES, OPTIONS



6 The impact assessment

Introduction

6.1 This chapter details the impact assessment carried out to assess the economic, social and environmental impacts related to the options set out in Chapter 5. We have followed the standard approach as set out in the Impact Assessment Guidelines for the calculation of the impacts. The chapter is comprised of the following sections:

- i) Identification of impacts of options
- ii) Quantitative assessment of direct impacts
- iii) Qualitative assessment of indirect impacts
- iv) Assessment of impacts on SMEs
- v) Assessment of impacts on sectoral competitiveness
- vi) Assessment of administrative impacts

Identification of impacts of options

6.2 The options as set out in Chapter 5 are intended to primarily directly impact the following:

- Vehicle authorisation timescales
- Vehicle authorisation costs
- Railway Undertaking certification timescales
- Railway Undertaking certification costs
- Number of national rules

6.3 Further, there are likely to be significant opportunity cost savings resulting from a reduced time to market for railway vehicles. These will derive from a number of sources including, reduction in cost of leasing additional vehicles to cover those unavailable, reduced loss of revenue from non-running of services and lower storage costs. Given the significant nature of these benefits they have been quantified (albeit at a high level) as part of the impact assessment together with the direct impacts set out above.

6.4 It is anticipated that there will be further indirect impacts, in particular, as a result of reductions in the cost and timescales of vehicle authorisation. For example, operators could decide to operate additional services which prohibitive authorisation costs previously rendered unviable. Table 6.1 sets out a list of impacts and indicators that reflect both direct and indirect impacts of the options with Figure 6.1 further illustrating the flow of causality between the different impacts flowing from changes in authorisation and certification costs and timescales. Table 6.1 also shows which indicators have been assessed quantitatively and which have been assessed only qualitatively.

6.5 Finally, measure 4.7 (Enhanced role of ERA in identifying potential spare parts to be standardised and coordination of industry activities in this area) will impact costs of maintenance across the EU rail industry. All the options are therefore directly linked to the problems identified in Chapter 3 as shown at the end of Chapter 5.

TABLE 6.1 IMPACTS OF OPTIONS - SUMMARY OF POSSIBLE IMPACTS

Impact	Impact Category	Indicator to be quantified/key relevant indicators	Quantitative assessment
1 st country authorisation costs	Economic	Total 1 st country authorisation costs	Y
Additional country authorisation costs	Economic	Total additional country authorisation costs	Y
1 st country authorisation timescales	Economic	Average 1 st country authorisation timescales	Y
Additional country authorisation timescales	Economic	Average additional country authorisation timescales	Y
1 st country safety certification costs	Economic	Total 1 st country safety certification costs	Y
Additional country safety certification costs	Economic	Total additional country safety certification costs	Y
1 st country safety certification timescales	Economic	Average 1 st country safety certification timescales	Y
Additional country safety certification timescales	Economic	Average additional country safety certification timescales	Y
Number of National rules	Economic	Stage of removal/number of notified national rules	N
Effect on freight transport demand	Economic	Total rail freight tonne km	N
Effect on rail freight prices	Economic	Price per tonne km	N
Modal shift (freight)	Economic	Rail freight mode share	N
Effect on passenger transport demand	Economic	Rail passenger km	N
Change in service levels	Economic	Train km	N
Modal shift (passenger)	Economic	Rail passenger mode share	N
Effect on operational costs	Economic	Total industry operational costs	Partially ¹⁵
Effect on fares for passengers	Economic	Average fares for passengers	N
Effect on rail investment	Economic	Total rail industry capital expenditure on new and refurbished rolling stock	N

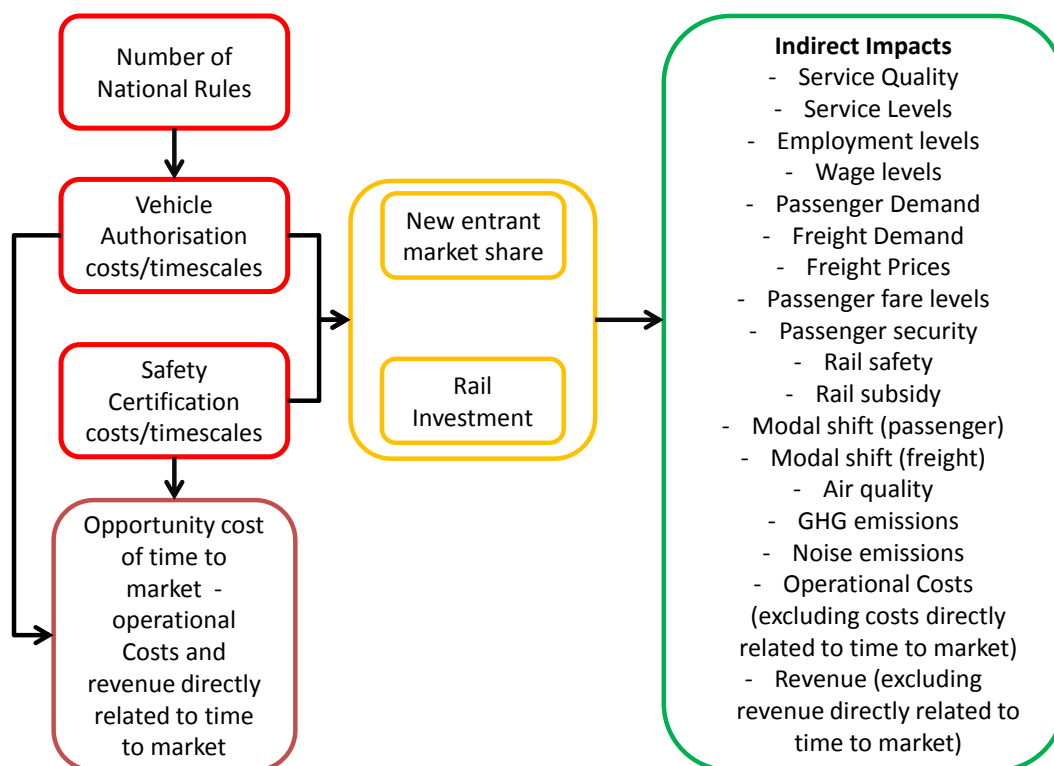
¹⁵ Savings from operational costs as a direct result of a reduced time to market have been estimated as a combined 'opportunity cost' measure together with increases in revenue as a direct result of reduced time to market. Changes in operational costs due to increased new entry and additional services have not been quantified

Impact	Impact Category	Indicator to be quantified/key relevant indicators	Quantitative assessment
Effect on industry revenue	Economic	Total rail industry revenue	Partially ¹⁶
Effect on public funding	Economic	Total rail subsidy	N
Effect on market structure	Economic	New entrant market share	N
Effect on employment levels and working conditions	Social	Total rail employment Average wage	N
Effect on GHG emissions	Environmental	Total CO ₂ emissions (tonnes)	N
Noise emissions	Environmental	Total noise emissions (in dB(A))	N
Local air quality	Environmental	Concentration of atmospheric pollutants	N
Rail safety	Social	Number of fatalities	N
Passenger security	Social	Number of crimes on rail network	N
Maintenance Costs ¹⁷	Economic	Total Maintenance costs	N
Effect on EU budget	Economic	Increase in administrative costs of the Agency	Y
Effect on MS public finances	Economic	Change in administrative costs of NSAs and other public bodies (including cost of re-employing workers where it is not possible to make them redundant)	Y

¹⁶ Increased revenue as a direct result of a reduced time to market has been estimated as a combined 'opportunity cost' measure together with reductions in operational costs as a direct result of reduced time to market. Changes in revenues due to increased new entry and extra demand generated by additional services has not been quantified

¹⁷ This is included to capture the impact of measure 4.7 (Enhanced role of ERA in identifying potential spare parts to be standardised and coordination of industry activities in this area)

FIGURE 6.1 IMPACT RELATIONSHIPS



6.6 From Figure 6.1 we see that there are a large number of indirect impacts that flow from changes in rail investment and new entrant market share, both of which are influenced by authorisation and safety certification costs. However, given the uncertainty around the impact of the options on new entrant market share and rail investment the impact analysis has focussed on the quantification of the indicators in the red boxes i.e. the direct impacts¹⁸.

Quantitative assessment

6.7 Using data gathered in the Stakeholder Consultation and additional market analysis we have populated an Excel spreadsheet (impact assessment calculator) which has been used to produce quantitative measures of the direct impacts of the different policy options. Where relevant the calculator has been used to place a financial value on indicators.

6.8 Commensurate with the anticipated legislative timescales for the introduction of new legal measures following this impact assessment, indicator values have been produced for a ten year future period (2015 to 2025). Where the metric is a monetary value it is presented in NPV terms using a discount factor of 4%, consistent with the impact assessment guidelines, with values discounted to 2012.

The baseline

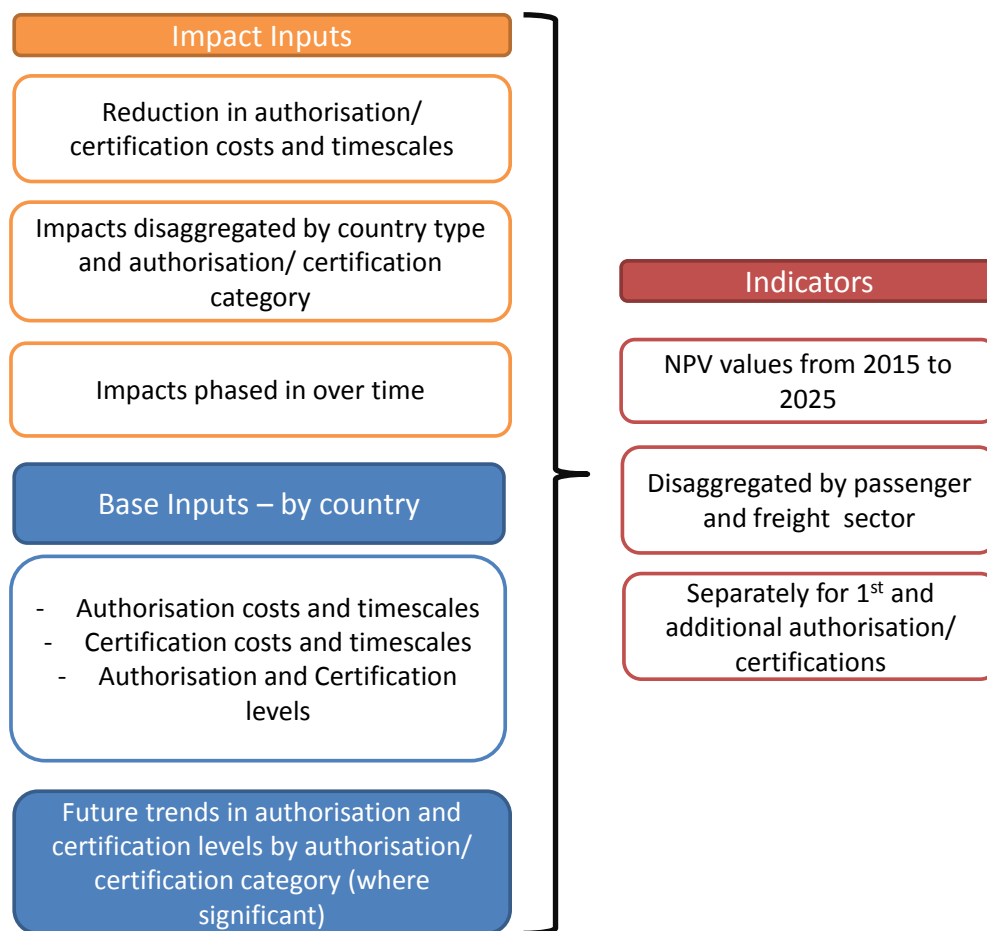
6.9 The baseline scenario against which the policy options have been measured assumes that there is an evolution of the status quo as described in Chapters 3 and 5.

¹⁸ Note that quantity of national rules has not been explicitly estimated

The Impact Assessment Calculator

- 6.10 Figure 6.2 summarises the key inputs and outputs of the impact assessment calculator.

FIGURE 6.2 FRAMEWORK FOR THE IMPACT ASSESSMENT CALCULATOR



- 6.11 The calculator has three key input data sets:

- Impact on costs and timescales of authorisation and certification of the different options
- Current costs, timescales and levels of authorisation and certification by country
- Future trends in levels of authorisation and certification by authorisation/certification category (where significant change anticipated)

Current costs and timescales

- 6.12 The calculator allows for considerable disaggregation of authorisation inputs to capture the wide spread of costs and timescales that arise from the authorisation of different types of vehicles in different contexts. The different authorisation categories in the calculator together with the average assumed costs and timescales are set out in Table 6.2. The calculator contains the functionality to input costs and timescales on an individual country basis although the limited data

available means that for many countries we have had to use average values. Data used to populate the base data incorporates a range of sources including:

- Agency Cross-Acceptance report on vehicle authorisation¹⁹
- Data from the presentations given at the vehicle authorisation Task Force
- Data from interviews with industry stakeholders
- Some (minimal) data provided within the stakeholder survey

6.13 We have not provided within this report all the data that we have received through the above mentioned sources as it would risk removing the anonymity of the data sources and could jeopardise future studies of this kind.

6.14 A risk with the data used is the incentive for data providers to share data on their worst case experiences whilst not providing data from authorisation examples where the process has worked better. We have therefore used the available data with caution and in one particular example we have adjusted the raw data to reflect the impact of exceptional circumstances unlikely to be repeated for the majority of authorisations in the relevant category²⁰. However, it is impossible to completely eliminate this possible bias and the possible overstatement of impacts from this source should be borne in mind when interpreting the results..

6.15 Certification cost and timescale inputs require less disaggregation since scope for variation other than between country and passenger and freight RUs is limited (leaving aside discriminatory practices against non-incumbents) The different certification categories in the calculator together with the average assumed costs and timescales are set out in Table 6.3. Again the calculator has the functionality to incorporate different values by country, although the limited data available means that for most countries we have had to use average values. Data used to populate the base data set incorporates a number of sources including:

- Agency impact assessment for the single safety certificate
- Data from stakeholder interviews and, where provided, the survey

6.16 It should be noted that the data available for safety certification costs (as in costs of preparing and submitting requests for certification rather than fees charged by NSAs) is very limited, with virtually no information received during the study at the country level. Data on fees is available at a country level for some countries, but fees are excluded in this analysis since they are captured in the administrative cost calculations discussed below. Likewise, data on timescales is available but the majority of data reflects only NSA response times and does not include RU/IM preparation time. As such, the cost impacts calculated for the options primarily reflect the faster implementation of the single safety certificate reducing the costs of additional country authorisation and the reduction of costs in Germany where there is evidence of a particularly long certification process. Calculated reductions in timescales reflect improvements in NSA response times and do not capture additional time savings on RU/IM preparation times.

¹⁹ Report on railway vehicle authorisation, European Railway Agency, 2011

²⁰ For confidentiality reasons it is not possible to state in more detail the adjustment made.

TABLE 6.2 AUTHORISATION CATEGORIES IN THE IMPACT ASSESSMENT CALCULATOR

Authorisation Category	Average cost (000€s)	Average timescale (months/Type)
New locomotive type authorisation (1st country)	6,000	24
New wagon type authorisation (1st country)	100	2
New Multiple Unit type authorisation (1st country)	600	24
New Coach type authorisation (1st country)	100	24
New locomotive type authorisation (additional country)	916	11
New wagon type authorisation (additional country)	0	0
New Multiple Unit type authorisation (additional country)	120	7
New Coach type authorisation (additional country)	0	0
Locomotive type re-authorisation without ERTMS (1st country)	750	12
Locomotive type re-authorisation with ERTMS (1st country)	1,500	12
Number of wagon type re-authorisations (1st country)	100	1
Multiple Unit type re-authorisation without ERTMS (1st country)	600	24
Multiple Unit type re-authorisation with ERTMS (1st country)	6,000	27
Coach type re-authorisation (1st country)	100	24
Locomotive type re-authorisation without ERTMS (additional country)	0	0
Locomotive type re-authorisation with ERTMS (additional country)	750	8
Number of wagon type re-authorisations (additional country)	0	0
Multiple Unit type re-authorisation without signalling (additional country)	0	0
Multiple Unit type re-authorisation with ERTMS (additional country)	2,000	6
Coach type re-authorisation (additional country)	0	0

Note: zero values relate to where there no reauthorisation is necessary.

6.17 The authorisation costs quoted in Table 6.2 include NSA fees incurred in the authorisation process but are primarily comprised of other cost items. We have estimated that on average authorisation fees represent less than 10% of total authorisation costs. The key cost components are listed below.

6.18 Authorisation cost components:

- Authorisation fees
- Applicant project management costs
- Preparation of technical documentation
- NoBo fees
- Other testing costs
- Other checking body fees (e.g. independent safety assessor)

6.19 Given that most available data is at a very high level it is difficult to assess the split of costs between the non-fee categories. However, to give a specific example of non-fees costs, the Agency's cross acceptance report on authorisation states that in some instances endurance running tests for locomotives costing nearly €1m have been required.

TABLE 6.3 CERTIFICATION CATEGORIES IN THE IMPACT ASSESSMENT CALCULATOR

Certification Category	Average cost (000€s)	Average timescale (months)
Safety Certification (1st Country) - Freight	21	5
Safety Certification (additional Country) - Freight	20	5
Safety Certification (1st Country) - Passenger	20	5
Safety Certification (additional Country) - Passenger	24	6

6.20 Note that unlike authorisation costs, the costs in table 6.3 represent the costs to RUs of the safety certification process *exclusive* of fees i.e. they primarily reflect the time taken to put the application together.

Current and forecast future levels of authorisation and certification

6.21 The most complete dataset on current authorisation levels is that compiled for the Agency's Cross-Acceptance report on vehicle authorisation. The data collected for this report has been made available to us for this study and has been used to construct base authorisation numbers for the different authorisation categories in the impact assessment calculator.

6.22 The data by the Agency disaggregates by country and vehicle type including new and existing vehicles. However, the dataset does not distinguish between first authorisations and additional country authorisations. This distinction is important since authorisation costs can be significantly different for first and additional authorisations, with examples given in interviews of first authorisations more than three times as expensive as additional authorisations.

6.23 The key assumptions that we have used to obtain the necessary disaggregation by first and additional authorisation are:

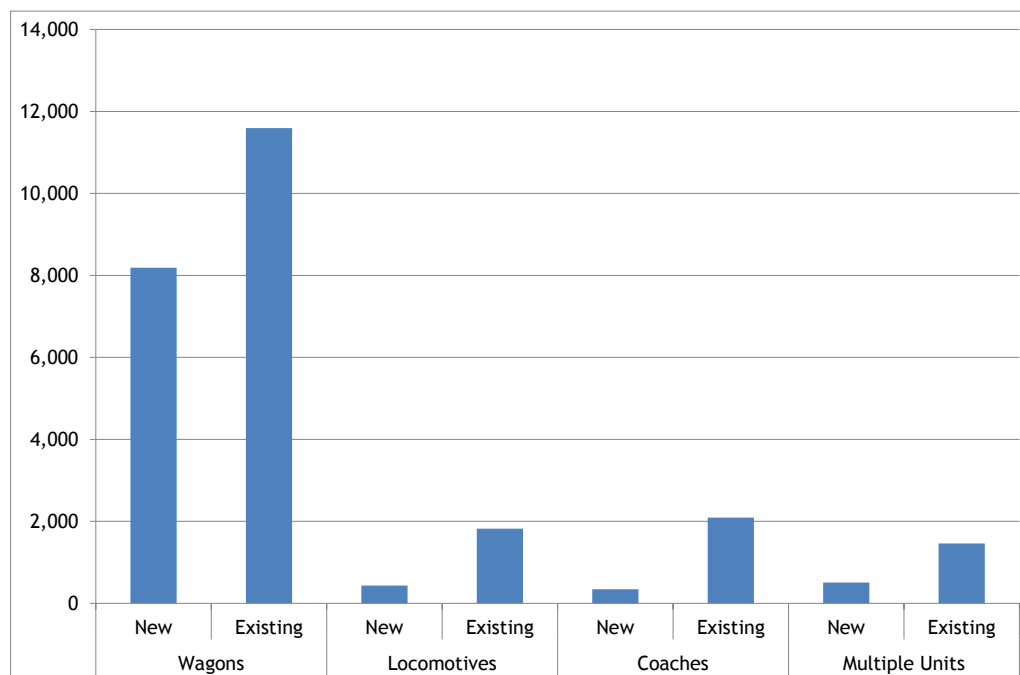
- The UNIFE estimate of savings from Cross-Acceptance assumes additional authorisations for each new locomotive and multiple unit type in ten countries. We have assumed that this ratio holds true for all new authorisations.

- Re-authorisations are all single country except ERTMS related authorisations which we assume are authorised in three countries in total²¹.
 - There are no wagon and coach additional authorisations (there will be some but numbers should be small)
- 6.24 In addition we have assumed that the number of authorisations related to ERTMS is directly proportional to the proportion of the European network covered²² by ERTMS.
- 6.25 The total number of vehicle authorisations for each vehicle category that we have used for the base position in the impact assessment calculator are shown in Figure 6.3. The breakdown by authorisation category is shown in Table 6.4.
- 6.26 The base year for authorisation numbers in the impact assessment calculator is 2008. The reasons for this are:
- The period 2009-2011 has seen very atypical patterns of authorisation due to the severe economic downturn experienced during this period. For example the agency estimated in the Cross-Acceptance report on vehicle authorisation that the number of vehicle authorisations in 2009 dropped nearly 10% compared to 2008.
 - More recent data at the disaggregated level available in the Cross-Acceptance report on vehicle authorisation is not readily available.
- 6.27 Going forward there is clearly significant uncertainty as to the growth in number of authorisations and forecast growth rates in the Cross-Acceptance report are generally based on 2010 in the middle of the economic downturn. We have therefore used the 2008 level of authorisations²³ to give us our base position (i.e. before the dramatic impacts of the economic downturn), but have then conservatively assumed no growth in vehicle authorisations over the study time period.

²¹ From our analysis we have seen that this varies according to vehicle type with some passenger rolling stock only being authorised in one Member State while locomotives, especially for freight, requiring authorisation in many Member States, as a result we have opted to use an average value of 3 for the purpose of the analysis.

²² This includes routes for which ERTMS has been contracted but not yet implemented

²³ We have used the 2008 total but at the individual category level have used an average of 2007 and 2008 to apportion the total between categories to reduce distortions present at an annual level caused, for example, by large individual orders. It should be noted that for some countries there is no data and as such the numbers represent a conservative estimate.

FIGURE 6.3 BASE YEAR AUTHORISATIONS (2007/2008 ADJUSTED, TOTAL NUMBERS)**TABLE 6.4 BASE YEAR AUTHORISATION NUMBERS IN IMPACT ASSESSMENT CALCULATOR**

Vehicle Category	New (1st Country)	New (additional country)	Re-authorisation (1st country)	Re-authorisation (additional country)
Wagons	8,190	0 ¹	11,600	0 ²
Locomotives	40	390	1,760	60
Coaches	340	0 ³	2,090	0 ⁴
Multiple Units	50	460	1,410	50

^{1,2,3,4} Data on authorisation numbers did not distinguish between first and additional authorisations and we have therefore had to make some assumptions as to the proportions of each. As set out in paragraph 6.19 we have assumed zero wagon and coach additional authorisations. In practice there will be a small number but at with the data available zero was the most appropriate (and robust) assumption.

Type size increase

6.28 A key issue for the number of *Type* authorisations is the number of vehicles per type. It can be anticipated over time that market consolidation and market changes induced by the TSIs will reduce the number of vehicle types on the market and hence the type size should increase. This is We have used estimates quoted in the Cross-Acceptance report on vehicle authorisation from UNIFE to derive the evolution of type size over the period 2007/2008 - 2025 for locomotives and multiple units. For wagons and coaches we have assumed that type size for new vehicles reaches that of existing vehicles by 2015 and remains constant thereafter. The assumed Type size changes are shown in Table 6.5

TABLE 6.5 TYPE SIZE CHANGES ASSUMED IN THE IMPACT ASSESSMENT CALCULATOR

Vehicle Category	Type Size	
	2007/2008	2025
New Wagons	105	148
Existing Wagons	148	148
New Locomotives	5	32
Existing Locomotives	13	13
New Coaches	22	22
Existing Coaches	22	22
New Multiple Units	16	87
Existing Multiple Units	35	35

Impact Inputs

- 6.29 The impact of the different options on costs and timescales are included at the same level of disaggregation as the base inputs, but not at the country level. However, the impacts of different policy options will differ according to the current industry context in any given country. For example, in countries which already authorise efficiently there will be a lower benefit from measures reducing authorisation costs.
- 6.30 To account for these complexities, impact inputs have been disaggregated to allow for different impacts in some countries where specific issues are known to exist. Inputs have then been expressed as percentage reductions of the gap between costs and timescales in each country type and the minimum that our analysis and research suggests is feasible. The country categorisations, which are based on the information that we have received through the stakeholder discussions and the desktop analysis, are:
- i) **Average** - this encompasses the majority of countries
 - ii) **Challenging** - This category contains Germany and France since these countries have both been identified as having specific issues as discussed in Chapter 3. The challenges regarding Germany are well known whilst prospective new entrants in France have experienced particular difficulties in obtaining authorisation of vehicles. Measures that enforce greater conformity with EU law are likely to have the greatest impact in these countries.
 - iii) **Low resource** - A number of countries have very small numbers of NSA staff available to deal with authorisation and certification with the result that some measures are likely to particularly impact authorisation and certification in these countries. The countries we have included in this category are: Italy, Poland, Czech Republic and Slovakia, Estonia, Greece, Luxembourg, Portugal and Slovenia. All of these countries had less than 5

full time equivalent staff directly involved in interoperability issues, except Poland which is also included as the Polish NSA has many vacancies.

- 6.31 The minimum costs and timescales that we have assumed in the impact assessment calculator are set out in Table 6.6 and Table 6.9. These are based on the range of costs and timescales that we have assessed as part of the study.

TABLE 6.6 MINIMUM POSSIBLE COSTS OF AUTHORISATION IN IMPACT ASSESSMENT CALCULATOR (€000)

Vehicle Category	New (1st Country)	New (additional country)	Re-authorisation (1st country)	Re-authorisation (additional country)
Wagons	100	n/a ¹	100	n/a
Locomotives	5,000	500	375 (without ERTMS) 750 (with ERTMS)	n/a (without ERTMS) 500 (with ERTMS)
Coaches	100	100	100	n/a
Multiple Units	480	200	480 (without ERTMS) 6,0004,800 (with ERTMS)	n/a (without ERTMS) 2,000 (with ERTMS)

¹ Note that where costs are 'n/a' this reflects the assumption that there are no authorisations (at least at a significant level) for this authorisation category.

TABLE 6.7 MINIMUM POSSIBLE TIMESCALES OF AUTHORISATION IN IMPACT ASSESSMENT CALCULATOR (MONTHS/TYPE)

Vehicle Category	New (1st Country)	New (additional country)	Re-authorisation (1st country)	Re-authorisation (additional country)
Wagons	1	n/a ¹	1	n/a
Locomotives	18	6	6 (without ERTMS) 8 (with ERTMS)	n/a (without ERTMS) 8 (with ERTMS)
Coaches	18	n/a	18	n/a
Multiple Units	18	12	18 (without ERTMS) 20 (with ERTMS)	n/a (without ERTMS) 6 (with ERTMS)

¹ Note that where timescales are 'n/a' this reflects the assumption that there are no authorisations (at least at a significant level) for this authorisation category.

TABLE 6.8 MINIMUM POSSIBLE COSTS OF CERTIFICATION IN IMPACT ASSESSMENT CALCULATOR (€000)

Market	1st Country	Additional country
Passenger	18	0
Freight	18	0

TABLE 6.9 MINIMUM POSSIBLE TIMESCALES OF CERTIFICATION IN IMPACT ASSESSMENT CALCULATOR (MONTHS/TYPE)

Vehicle Category	1st Country	Additional country
Wagons	3	0
Locomotives	3	0

- 6.32 A particular issue is the treatment of Germany where there currently exists a fundamental conflict between German and EU law. We have assumed (as set out in the previous chapter) that this is cancelled out through a positive outcome (for the Commission) of the infringement proceedings currently in process and hence a portion of the benefits from reduction of authorisation costs and timescales are included in the baseline.

Calculating the impact of options on authorisation costs and timescales

- 6.33 Calculation of impacts of options on authorisation costs and timescales is fundamental to the impact assessment. However, whilst we have data from a number of sources for a number of countries as to the costs and timescales of authorisation which indicates the size of the difference between efficient and non-efficient authorisation, there is no data that directly tells us how far any given option will reduce the cost and timescales towards the most efficient level of authorisation.
- 6.34 To increase the robustness of the estimates we have assessed the possible impacts of measures as systematically as possible. To do this we have used the following questions as a prompt when evaluating the measures:

Authorisation

- i) Does the measure address issues specific to a particular vehicle type?
- ii) Is the measure relevant for both 1st authorisation and additional authorisation?
- iii) Which elements of the authorisation process does the measure impact?
- iv) What other measures are interrelated?
- v) What are the timescales for implementation of the measure?
- vi) What are the timescales for the impact of the measure once implemented?

- vii) Will the impact be different in different countries?

Certification

- i) Does the measure address issues specific to freight or passenger Railway Undertakings?
 - ii) Is the measure relevant for both 1st certification and additional certification?
 - iii) Which elements of the certification process does the measure impact?
 - iv) What other measures are interrelated?
 - v) What are the timescales for implementation of the measure?
 - vi) What are the timescales for the impact of the measure once implemented?
 - vii) Will the impact be different in different countries?
- 6.35 Based on these questions we have then identified the likely scope of impacts, which authorisation and certification categories are likely to be impacted most significantly, timescales over which impacts will arise and where impacts are likely to differ significantly between countries. Measures have been categorised as having a low, medium or high effect where a low effect corresponds to a reduction of the gap between current average authorisation costs and ‘perfect’ authorisation costs of between 0 and 5%, medium 5-15% and high, greater than 15%.
- 6.36 Once each measure was assessed an overall assessment at option level was carried out to produce inputs for use in the impact assessment calculator. This amalgamated the impacts at an option level, applying adjustments to avoid double-counting of impacts when measures were added together.
- 6.37 Each option has been assessed as having a low, medium or high effect where low corresponds to a reduction of the gap between current average authorisation costs and ‘perfect’ authorisation costs of between 0-20%, medium with an impact of 20-50% and high with an impact of 50-100%.
- 6.38 It should be noted that the qualitative assessment of options 2 to 6 has been carried out on an incremental basis relative to the baseline. This means, for example, that whilst the baseline has been assessed overall as having a medium impact, option 2 has a low to medium impact. This does not mean that option 2 is worse performing than the baseline, rather that the incremental improvement in option 2 compared to the baseline is relatively small. The baseline is assessed as medium impact since it represents a substantial reduction in authorisation costs and timescales compared to the current position.
- 6.39 As explained in Chapter 5, we have assigned each option a descriptor which reflects the Agency’s role in relation to NSAs. This is only for presentational reasons as the detailed description of the options shows that they not only include activities related to the NSAs, but also to the wider market.
- 6.40 The summary table for the options is set out below, the more detailed breakdown per measure is included in Appendix C.

TABLE 6.10 IMPACT ANALYSIS OF OPTIONS 1 TO 6

Measure	Key impact characteristics (as prompted by question list)	Impact magnitude (low/medium/high)	Measure in place	Likely phasing of main impact
Baseline	The Baseline encompasses a wide range of impacts, a number of which (e.g. work on national rules) are likely to have a significant effect on authorisation costs and timescales. It is estimated that by 2025 the measures in place will close the gap between average authorisation costs and minimum achievable authorisation costs by over 30%. The impact on certification costs is however, much smaller with no significant initiatives to reduce certification costs.	Medium	2011	2011-2025
Option 2	The impact of this option is relatively low with additional powers of the Agency limited. Main impact is on additional authorisations.	Low	2017	2017-2022
Option 3	Whilst ERA has more powers in this option primarily through measure 2.2.B it is likely that additional benefits over option 2 will be limited with division of labour between NSAs and the Agency being an issue.	Low/Medium	2017	2017-2022
Option 4	Provided ERA has sufficient powers to act as a strong central office this option is likely to have a significant impact on authorisation and certification costs and timescales.	Medium/High	2017	2017-2023
Option 5	This option would have a high impact on authorisation costs and timescales and would also enable additional efficiencies over the current arrangements through economies of scale.	High	2017	2017-2023
Option 6	This option contains some measures that can be implemented relatively quickly and as such has an earlier benefit than any other option. However, most of the measures have a medium or low impact and therefore the overall impact is similar to options 2 and 3.	Medium	2015 ³	2015 ³ -2025

Summary of Direct Impact Outputs

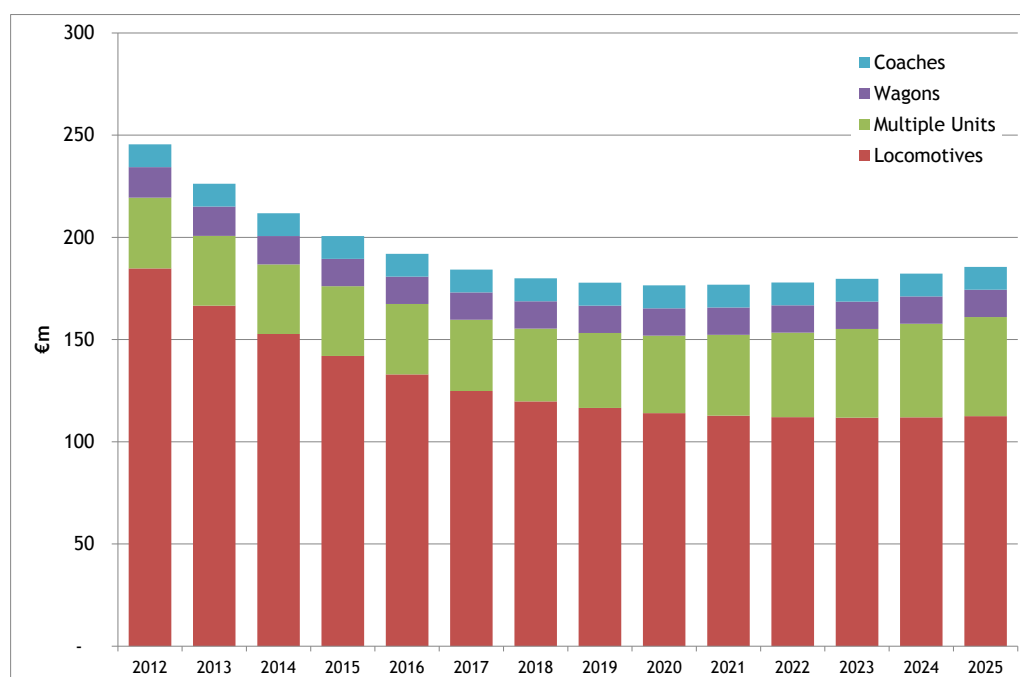
Baseline

- 6.41 The forecast evolution of total authorisation costs in the baseline scenario between 2012 and 2025 is shown in Figure 6.4. This shows that in the baseline, even without major extensions of the Agency's role, total authorisation costs are

anticipated to fall by over a third by 2020 as Cross-Acceptance, reduction of National Rules, TSI scope extension and other measures impact authorisation costs. The total level of authorisation costs does however, demonstrate the scope for cost savings with estimated total authorisation costs of over a quarter of a billion euros in 2012. The increase in authorisation costs post 2020 is caused by growth in ERTMS deployment creating a higher volume of (expensive) ERTMS related vehicle authorisations. This is an area of considerable uncertainty in the total level of authorisation costs but the impact on the incremental option benefits is small.

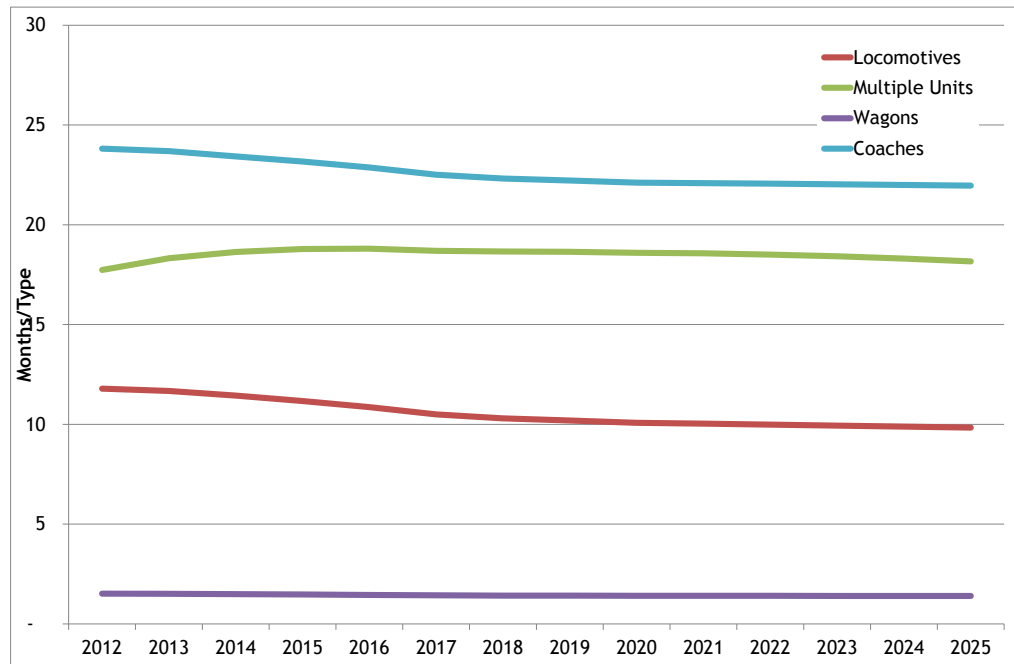
- 6.42 The main external reference point for the quantitative outputs in this study is the Agency's evaluation of the benefits of TSI Scope extension. A direct comparison of absolute authorisation costs is difficult since the Agency's analysis (which deals solely with locomotives) includes an estimate of the economic costs of locomotives stored in sidings as well as the direct costs of vehicle authorisation. However, what can be ascertained is that, whilst the Agency has estimated an approximate 50% reduction in authorisation costs (including economic costs of locomotives stored in sidings) by 2020 we have taken a more cautious view, estimating a reduction of around a third by 2020.

FIGURE 6.4 FORECAST AUTHORISATION COSTS ALL VEHICLE TYPES 2012-2025 (REAL, UNDISCOUNTED)



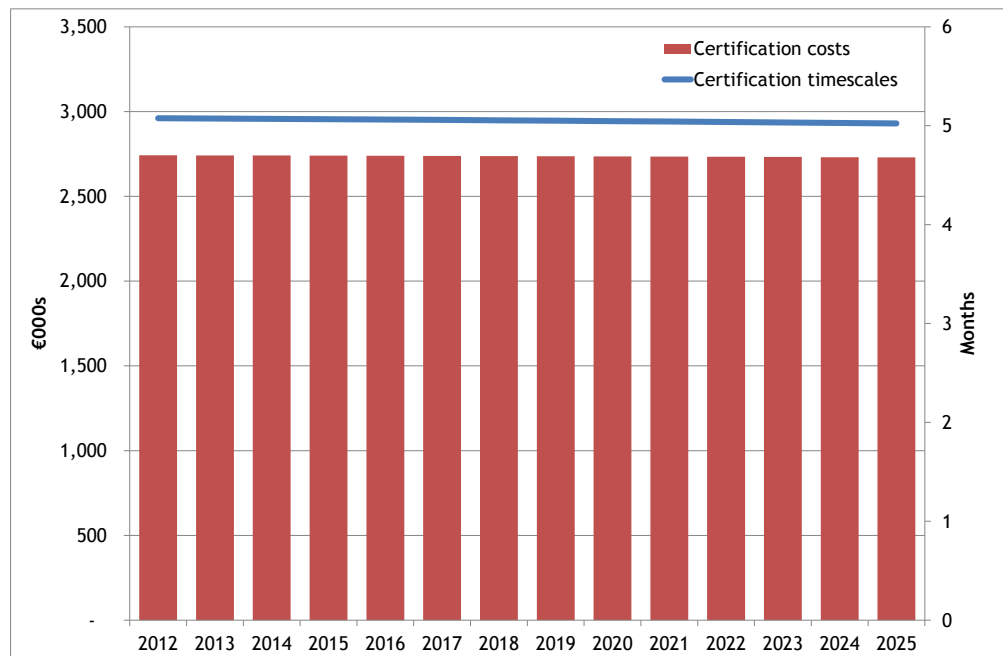
- 6.43 The forecast evolution of average authorisation timescales in the baseline scenario between 2012 and 2025 is shown in Figure 6.5. Consistent with the reduction in costs a reduction in timescales is forecast although not as large as the proportional reduction in costs.

FIGURE 6.5 FORECAST AUTHORISATION TIMESCALES 2012-2025



6.44 In the baseline certification costs and timescales are forecast to remain virtually constant with little improvement as illustrated in Figure 6.6.

FIGURE 6.6 FORECAST CERTIFICATION COSTS 2012-2025 (REAL, UNDISCOUNTED)



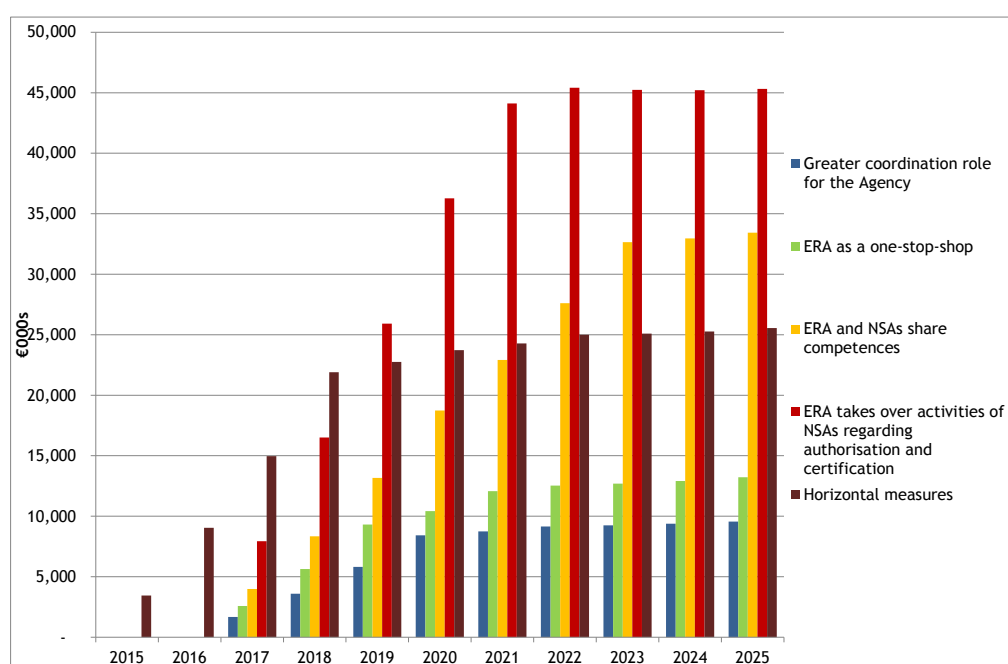
Summary of option results incremental on the baseline

6.45 Discounted savings for authorisation costs are shown in Table 6.11. The evolution of these cost savings over time is shown in Figure 6.7.

TABLE 6.11 DISCOUNTED AUTHORISATION COST SAVINGS

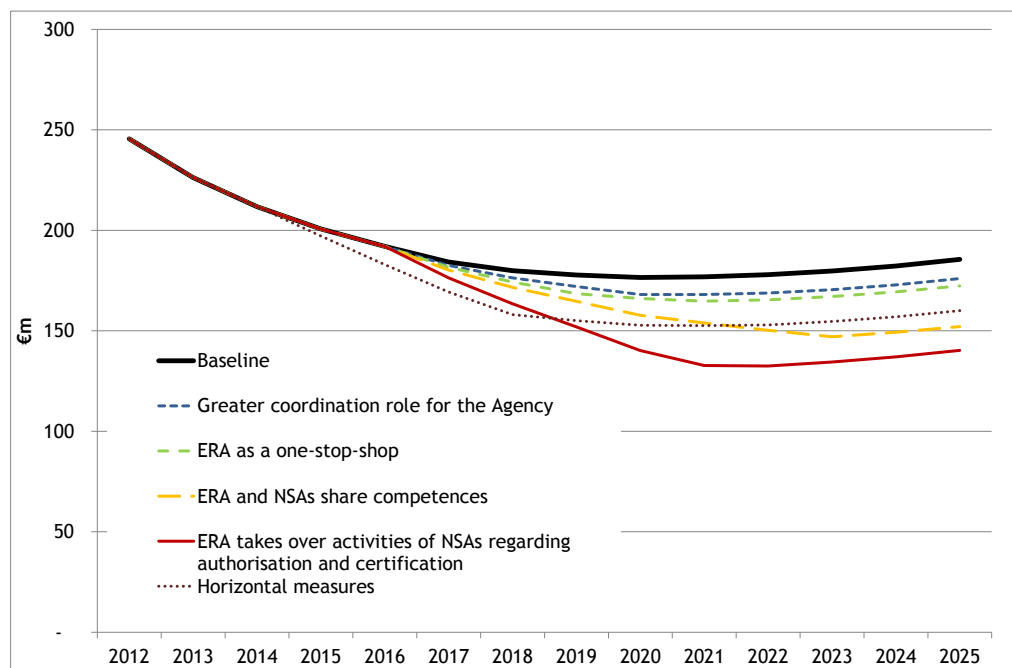
Option	Discounted savings in authorisation costs 2015-2025 (€m NPV)
Option 2: Further ERA “Coordination”	45
Option 3: ERA as One-Stop-Shop	62
Option 4: ERA & NSAs share competencies	130
Option 5: ERA takes over activities of NSAs regarding authorisation & certification	212
Option 6: horizontal measures (independent of the level of interaction ERA/national authorities)	156

FIGURE 6.7 TOTAL AUTHORISATION COST SAVINGS 2015-2025 (REAL, UNDISCOUNTED)



- 6.46 Consistent with the qualitative analysis, option 5 is significantly more effective in reducing authorisation costs than other options with efficiencies being gained in this option that can only be achieved through complete centralisation. Option 6 has a significantly earlier impact than the other options, again consistent with the qualitative analysis and reflecting measures that can be put in place relatively quickly.
- 6.47 The path of total authorisation costs relative to the baseline is illustrated in Figure 6.8. This shows clearly that although Option 3 has nearly 40% more benefit than Option 2, relative to the other options the difference between these two options is actually quite small.

FIGURE 6.8 TOTAL AUTHORISATION COSTS BY OPTION 2012-2025 (REAL, UNDISCOUNTED)



6.48 One of the potentially surprising features of the results is the significantly larger impact of option 6 compared to options 2 and 3. In NPV terms the horizontal option is more than three times as beneficial as option 2 and more than twice as beneficial as option 3. There are a number of reasons for this:

- I Early start of measures** - In the horizontal option a majority of the measures can be implemented by 2015. A significant element of the much higher NPV value of benefits for option 6 is due to the early introduction of measures compared to options 2 and 3 where no measures are implemented before 2017.
- I Large number of measures in the horizontal option with medium impact** - six measures in the horizontal option are classified as having a medium impact. Whilst there is some overlap between the individual measures which has been captured in the analysis, the combination of a large number of medium impact measures is a substantial impact. In particular there are three measures which strengthen the legal basis of authorisation and certification through a clearer legal framework (measures 3.3 and 4.6) and a stronger enforcement regime (measure 3.1). Taken together, these measures provide a solid basis for a substantive reduction in authorisation and certification costs.
- I Limited 'teeth' of option 2 and 3 measures resulting in low impacts for many measures** - whilst the horizontal option has a number of relatively strong measures, option 2 and 3 measures generally lack the teeth to be particularly effective without full NSA cooperation. For example, in option 3 'entry and exit' checks for certification and authorisation decisions and auditing of adherence to guidelines will only be effective in the sense of applying 'peer' pressure on NSAs. There is no legal compulsion attached. This is in contrast to the horizontal options where a number of the measures provide a direct legal

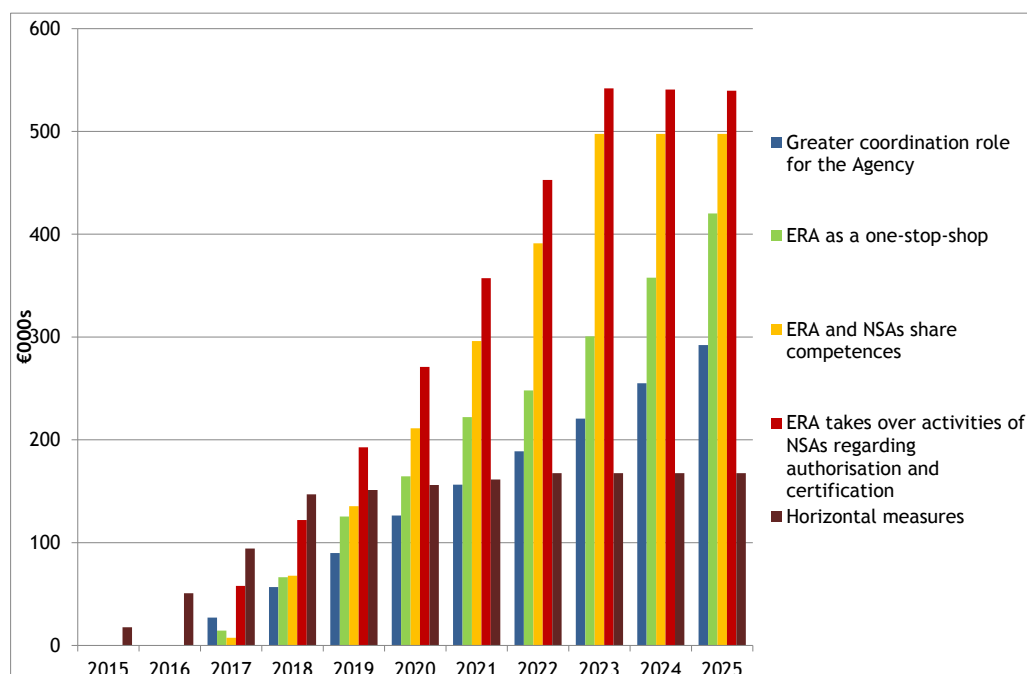
basis for challenge of NSA actions. Measure 2.3 in option 3 does allow the Agency to act as an appeal body but the available evidence has pointed to an extreme reluctance on the part of RUs to appeal against NSA decisions. In addition the impact of this measure is forecast to reduce as the number of open points and national rules decreases.

- 6.49 Discounted savings for certification costs are shown in Table 6.12. Total certification cost savings over the evaluation period are shown in Figure 6.9.

TABLE 6.12 DISCOUNTED CERTIFICATION COST SAVINGS (EXCLUDING FEES)

Option	Discounted savings in certification costs 2015-2025 (€m NPV)
Option 2: Further ERA “Coordination”	0.9
Option 3: ERA as One-Stop-Shop	1.3
Option 4: ERA & NSAs share competencies	1.7
Option 5: ERA takes over activities of NSAs regarding authorisation & certification	2.0
Option 6: horizontal measures (independent of the level of interaction ERA/national authorities)	1.1

FIGURE 6.9 TOTAL CERTIFICATION COST SAVINGS 2015-2025 (EXCLUDING FEES REAL, UNDISCOUNTED)



- 6.50 The picture for certification costs is slightly different to authorisation costs with less differentials between Options 3 and 4. Also the benefits of the horizontal measures option are significantly smaller than those for Options 3-5. The key difference, between the authorisation and certification cost savings is, however,

that the certification savings are much smaller, reflecting both a lower volume of certifications relative to authorisations and lower costs per certification compared with authorisation.

Results of combining option 6 with options 2 to 5

- 6.51 In addition to the analysis of the individual policy options we have created a further set of policy options by combining the impacts of the horizontal policy option measures with the impacts of the other policy options. This has been done as Option 6 cannot realistically act as a stand-alone option and would only really work effectively when it is linked to the previous options.
- 6.52 This analysis is not a simple addition of the options as the horizontal measures have a different impact on Options 2 to 5. In Table 6.13 we have set out the level of impact from the horizontal option measures when combined with options 2 to 5. Where the impact is the same for the combined option as for the stand-alone horizontal option this is denoted by '100%'. Where it is less a correspondingly smaller percentage is included. The key feature is that a number of horizontal measures have a smaller impact in options 4 and 5 since the core measures for these options negate the need for some of the horizontal measures. In the impact assessment calculator option level adjustments have also been included to keep the combined effects to a feasible level (i.e. reduction of gap between average and 'perfect' authorisation/certification cannot be more than 100%).
- 6.53 The matrix in Table 6.13 represents a fairly high level approach to the amalgamation of the horizontal measures. Together with some simplifications with the phasing of impacts this means that these results should be used with appropriate caution.

TABLE 6.13 HORIZONTAL MEASURES IMPACTS MATRIX

Option	Horizontal option measure							
	3.1	3.3	4.1.1	4.1.2	4.2	4.3	4.6	4.7
Option 2	100%	100%	100%	100%	100%	100%	100%	100%
Option 3	100%	100% 50% (additional country certification)	75%	100%	100%	100%	75%	100%
Option 4	25%	50%	50%	100%	100%	75%	50%	100%
Option 5	0%	0%	25%	100%	75%	50%	25%	100%

Note: percentages reflect the relative impact of measures when combined with options 2-5 compared to impact in option 6. I.e. if impact of measure in option 6 is 10% and percentage in table is 50% this implies a 5% impact.

- 6.54 Discounted savings for authorisation costs are shown in Table 6.14. The evolution of these cost savings over time is shown in Figure 6.10. A key point is that with the addition of the horizontal measures, the gap between the options narrows significantly.

TABLE 6.14 DISCOUNTED AUTHORISATION COST SAVINGS WITH HORIZONTAL MEASURES INCLUDED IN OPTIONS

Option	Discounted savings in authorisation costs 2015-2025 (€m NPV)
Option 2: Further ERA “Coordination”	201
Option 3: ERA as One-Stop-Shop	217
Option 4: ERA & NSAs share competencies	235
Option 5: ERA takes over activities of NSAs regarding authorisation & certification	276

FIGURE 6.10 TOTAL AUTHORISATION COST SAVINGS 2015-2025 WITH HORIZONTAL OPTION COMBINED WITH OPTIONS 2 - 5 (REAL, UNDISCOUNTED)

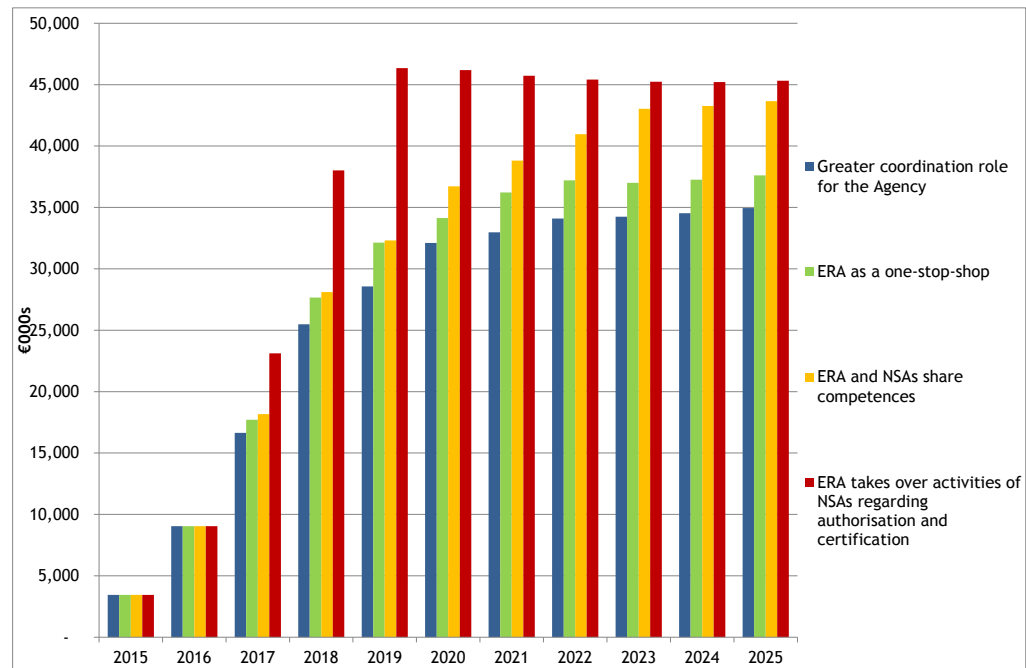
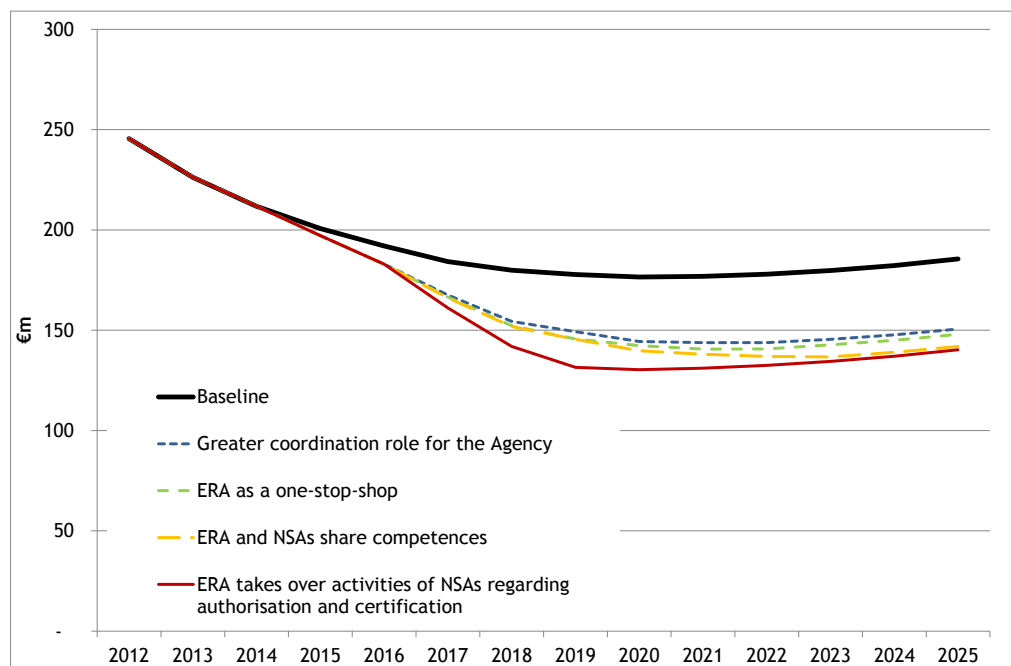


FIGURE 6.11 TOTAL AUTHORISATION COSTS BY OPTION 2012-2025 WITH COMBINED OPTIONS (REAL, UNDISCOUNTED)

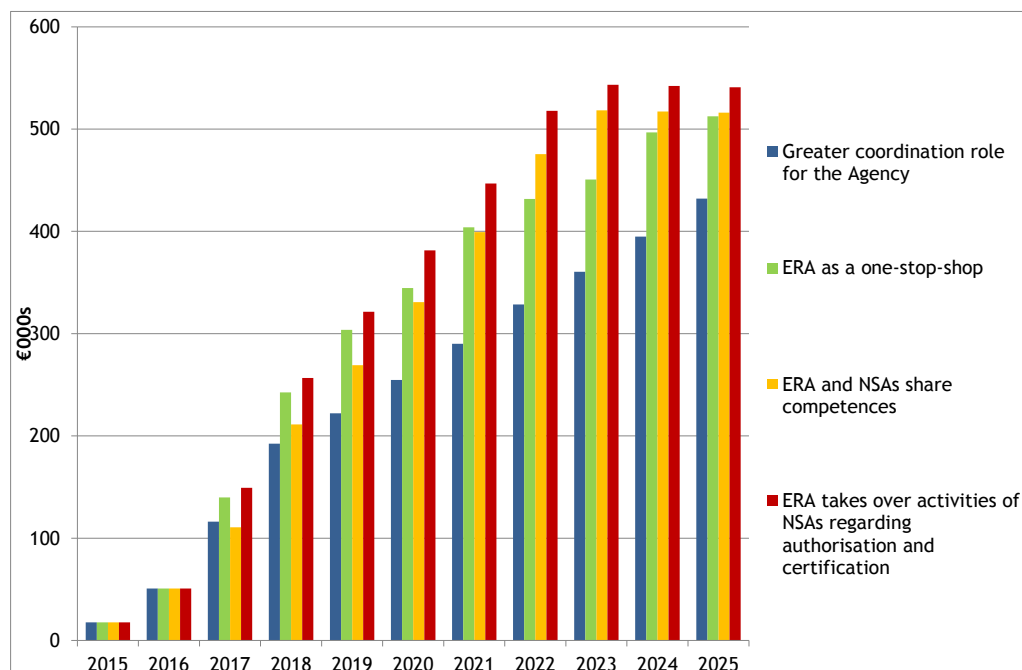


- 6.55 This figure confirms that the incremental options have a significant impact on the cost of authorisation with Options 4 and 5 reaching at least a 20% improvement over the baseline.
- 6.56 Discounted savings for certification costs are shown in Table 6.15. Total certification cost savings over the evaluation period are shown in Figure 6.12. The difference between options 4 and 5 narrows less than for authorisation costs, due partly to the dominating influence of bringing forward the impacts of the single safety certificate in options 4 and 5. However, options 3 and 4 now have a virtually identical level of benefit.

TABLE 6.15 DISCOUNTED CERTIFICATION COST SAVINGS (EXCLUDING FEES) WITH HORIZONTAL MEASURES OPTION COMBINED WITH OPTIONS 2 - 5

Option	Discounted savings in authorisation costs 2015-2025 (€m NPV)
Option 2: Further ERA "Coordination"	1.8
Option 3: ERA as One-Stop-Shop	2.3
Option 4: ERA & NSAs share competencies	2.3
Option 5: ERA takes over activities of NSAs regarding authorisation & certification	2.6

FIGURE 6.12 TOTAL CERTIFICATION COST SAVINGS 2015-2025 (EXCLUDING FEES) WITH HORIZONTAL MEASURES OPTION COMBINED WITH OPTIONS 2 - 5 (REAL, UNDISCOUNTED)



6.57 In Appendix D we set out the direct impacts of the options disaggregated to show the differing impacts on 1st and additional authorisation/certifications and also the relative size of the impact on the passenger and freight markets. The results shown in the appendix are the results for the combined options.

Opportunity cost savings from reduced authorisation timescales

6.58 There will be a number of savings arising directly from shorter rolling stock authorisation timescales. These include:

- Reduction in operating costs accrued as a result of needing to cover delayed stock with alternative stock
- Reduction in loss of revenue where the introduction of new services is delayed/existing services are cut back where rolling stock is not available to cover for delayed stock
- Reduced storage costs

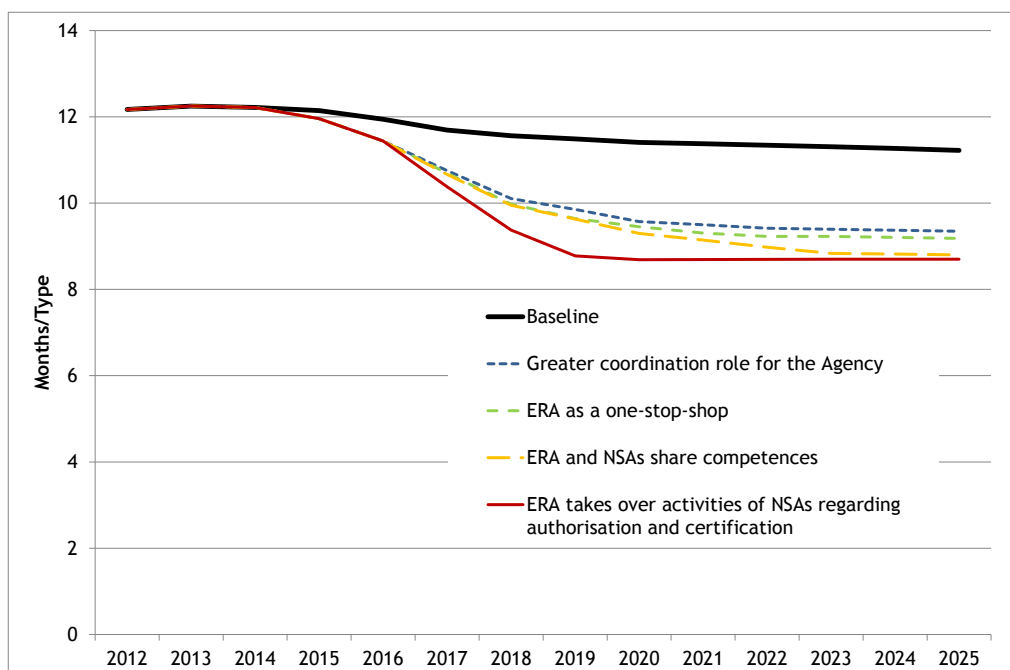
6.59 Whilst the impacts are significant, quantification is challenging. For example, the balance of cost savings versus reductions in lost revenue is highly dependent on the precise nature of services involved. Further, the magnitude of cost savings and reductions in revenue loss will also be dependent on a number of other factors. For example, an incumbent might be able to cover affected services with existing rolling stock and therefore only incur storage costs, but a new entrant might forgo significant revenue if it is unable to obtain covering rolling stock.

6.60 We have therefore developed three scenarios to construct an assessment of the possible range of opportunity cost savings. The scenarios are:

- i) All affected services are covered by alternative rolling stock (lower bound)
 - ii) Half of affected freight services and half of affected passenger services are not able to run with resultant revenue loss (central case)
 - iii) None of the affected services are able to run (upper bound)
- 6.61 The detailed derivation of assumptions and methodology used to construct the estimates for each scenario are covered in the Appendix D. The key parameters however, are:
- Cost of alternative rolling stock is assumed to be cost of leasing additional rolling stock. For locomotives a value of approx. €30k per month has been used and for multiple unit vehicles, €15k. Both these values are approximately 1% of typical average new vehicle values
 - Using UIC data, average revenue per loco and passenger vehicle have been calculated as a percentage of new vehicle value. For locomotives this is 3.8% on a monthly basis and for passenger vehicles 1.9% on a monthly basis
- 6.62 Using these parameters together with the current value of delayed rolling stock in sidings derived from data collected by the Agency it has been possible to construct estimates of the savings arising from reduced authorisation timescales. We have assumed that reductions in authorisation timescales are reflected one for one in reductions in average delays²⁴. Reductions in certification timescales have not been included in the delay reduction since evidence suggests it is vehicle authorisation that is the primary binding constraint.
- 6.63 Average reductions in authorisation timescales by option are shown in Figure 6.13 . Note that the average reduction in timescales shown in Figure 6.13 will not correspond exactly with the total opportunity cost reductions shown in Table 6.16 since it is calculated as a weighted average of all authorisations, not just authorisations of vehicles in sidings.

²⁴ Alternative assumptions could have been employed e.g. it might be anticipated that the cases in question represent the 'hard cases' that would be impacted more than average by measures explicitly targeting 'challenging' countries and less than average by other measures. However, given the limited evidence available we have used the simple assumption outlined.

FIGURE 6.13 AVERAGE REDUCTION IN AUTHORISATION TIMESCALES BY COMBINED OPTION



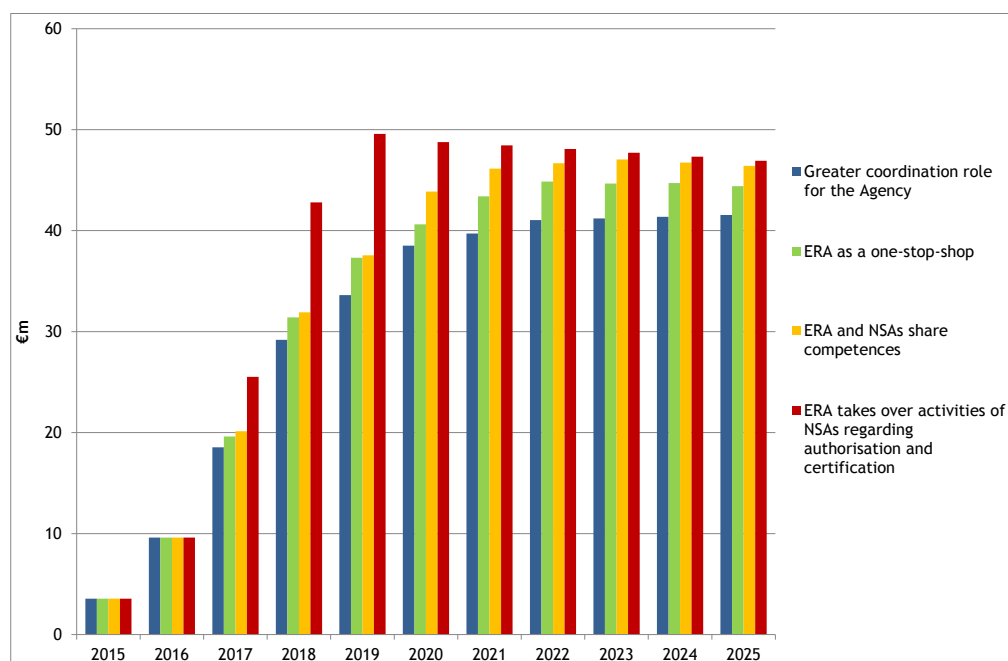
- 6.64 The analysis only covers locomotives and multiple units since the Agency have stated that their studies show that coaches and wagons usually achieve their due dates and only have data for locomotives and multiple units. In addition we have not incorporated costs of storage since available data²⁵ suggests that these costs are relatively small compared to the costs of leasing stock or forgone revenue.
- 6.65 Table 6.16 shows the discounted opportunity cost savings that could be achieved over the period 2015 - 2025. The inclusion of the three different scenarios illustrates the large degree of uncertainty but suggests that savings could be at least €100m for option 5. Figure 6.13 illustrating savings by year for the central case further shows that savings per option are between €30 and €40m per year by the end of the evaluation period.

²⁵ Analysis of data from the UK Competition Commission enquiry into rolling leasing companies suggested storage costs of less than €500 a month per vehicle - less than 5% of typical lease costs.

TABLE 6.16 DISCOUNTED OPPORTUNITY COST SAVINGS 2015-2025 (€M NPV) BY OPTION

Option	Central Case	Lower bound	Upper bound
Option 2: Further ERA "Coordination"	237	71	402
Option 3: ERA as One-Stop-Shop	255	77	433
Option 4: ERA and NSAs share competences	265	81	450
Option 5: ERA takes over activities of NSAs regarding authorisation and certification	295	90	499

FIGURE 6.14 TOTAL OPPORTUNITY COST SAVINGS 2015-2025 WITH HORIZONTAL MEASURES OPTION COMBINED WITH OPTIONS 2 - 5 (CENTRAL CASE, REAL, UNDISCOUNTED)



Total Quantified benefits of combined options

- 6.66 Combining the authorisation, certification and opportunity cost savings demonstrates substantial benefits over the evaluation period with benefits of over €0.5bn for options 3-5 even in discounted terms. Note that for these calculations we have used the central case numbers for the opportunity cost savings for reduced volumes of delayed rolling stock. Total quantified benefits by option are presented in Table 6.17

TABLE 6.17 TOTAL QUANTIFIED BENEFITS 2015-2025 (REAL, DISCOUNTED)

Option	Total quantified benefits (€m NPV)
Option 2: Further ERA “Coordination”	439
Option 3: ERA as One-Stop-Shop	474
Option 4: ERA and NSAs share competences	503
Option 5: ERA takes over activities of NSAs regarding authorisation and certification	574

Qualitative assessment of indirect impacts

- 6.67 Quantification of the indirect impacts set has not been carried out for a number of reasons:
- Considerable time and effort has been expended quantifying the direct impacts on costs and timescales of vehicle authorisation and railway undertaking safety certification. However, the complexity and multi-faceted nature of authorisation, in particular, means that precise estimation is not possible. Estimation of indirect impacts would therefore have been built off a base already containing a significant degree of uncertainty.
 - One of the key links in the chain of causality between direct and indirect impacts is the impact of changes in vehicle authorisation costs and timescales on new entrant levels. Whilst there clearly is an impact, authorisation costs are only one component of a large set of costs and barriers which will affect new entry into the rail market and any quantification of this link would necessarily have been tenuous at best.
 - Relative to authorisation cost savings most of the indirect impacts are anticipated to be small
- 6.68 It was therefore agreed with the DG MOVE impact assessment team that quantification of impacts would be restricted to direct impacts only. In addition to avoiding the production of highly uncertain forecasts it has enabled an increased focus on the core direct impacts.
- 6.69 In this section we therefore present a qualitative assessment of the indirect impacts of the non-combined options. The key conclusions are summarised in Table 6.18 with additional textual analysis where appropriate after the table. In this context it is very difficult to identify a range of impact with the low/medium/high categorisation due to the level of uncertainty. However, we have defined ‘low’ as likely to reflect an impact hardly noticeable even at a country/market sector level, whilst ‘medium’ might be noticed in some countries and market sectors. Only ‘high’ impacts would be detectable at the EU level. Finally, for some impacts we have assessed the impact as zero where the impact is deemed to be so small as to be negligible.
- 6.70 The summary line at the bottom of the table provides our view of the global qualitative impact of each option. It is clear, and is discussed further below, that

the global impacts are low across all options due to the very technical and sector specific impacts of the provisions within this initiative.

TABLE 6.18 QUALITATIVE ASSESSMENT SUMMARY

Impact	Key indicator(s)	Magnitude of impact (High/Medium/Low)				
		Option 2	Option 3	Option 4	Option 5	Option 6
Effect on freight transport demand	Total rail freight tonne km	Low	Low	Low	Low	Low
Effect on rail freight prices	Price per tonne km	Low	Low	Medium	Medium	Low
Modal shift (freight)	Rail freight mode share	Low	Low	Low	Low	Low
Effect on passenger transport demand	Rail passenger km	Low	Low	Low	Low	Low
Change in service levels	Train km	Low	Low	Medium	Medium	Low
Modal shift (passenger)	Rail passenger mode share	Low	Low	Low	Low	Low
Effect on operational costs (beyond direct effects)	Total industry operational costs	Low	Low	Medium	Medium	Medium
Effect on fares for passengers	Average fares for passengers	Low	Low	Low	Low	Low
Effect on rail investment	Total capital expenditure on rolling stock	Low	Low	Medium	Medium	Low
Effect on industry revenue (beyond direct effects)	Total rail industry revenue	Low	Low	Low	Low	Low
Effect on public funding	Total rail subsidy	Low	Low	Low	Low	Low
Effect on market structure	New entrant market share	Low	Low	Medium	Medium	Low
Effect on employment levels and working conditions	Total rail employment Average wage	Low	Low	Low	Low	Low
Effect on GHG emissions	Total CO ₂ emissions (tonnes)	Low	Low	Low	Low	Low
Noise emissions	Total noise emissions (in dB(A))	Low	Low	Low	Low	Low
Local air quality	Concentration of atmospheric pollutants	Low	Low	Low	Low	Low
Rail safety	Number of fatalities	Zero	Zero	Zero	Zero	Zero
Passenger security	Number of crimes on rail network	Zero	Zero	Zero	Zero	Zero
Maintenance costs	Total maintenance costs	Zero	Zero	Zero	Zero	Low
Global qualitative impact evaluation		Low	Low	Low/ Medium	Low/ Medium	Low

*Additional explanation of qualitative assessment in Table 6.18**Effect on operational costs*

- 6.71 The dominant impact on operational costs will be the fall in vehicle authorisation timescales reducing the need to cover services using alternative rolling stock (either via lease or sub-contract) whilst waiting for delayed authorisations. This has been measured separately as part of the 'opportunity cost' indicator. The other key impact of improved vehicle authorisation will be the removal of a significant barrier to entry for new entrants. It can be anticipated that an increase in new entrants will result in lower average costs in the industry.

Effect on rail freight prices

- 6.72 Rail freight prices will be impacted through two mechanisms:
- Reduction in prices through incumbent freight operators passing through a proportion of cost savings from cheaper authorisation to customers
 - New entrants entering the market due to lower authorisation and certification costs reducing the barriers to entry
- 6.73 It is likely that the overall impact on prices will be low or medium at best in all options for three reasons:
- Authorisation changes, though, substantial in absolute terms are only one component of railway undertaking costs
 - Since in many cases a large proportion of cost savings accrue to manufacturers and lessors of rolling stock as well as railway undertakings i.e. another step removed from customers some of the savings are likely to be taken in increased margin further up the supply chain
 - The majority of cost savings will still be for incumbent freight operators often operating in markets with little competition with low incentives to reduce prices

Effect on fares for passengers

- 6.74 As for freight prices it is likely that the impact on passenger fares will be low for all options. Given that the key impacts are for locomotives which overwhelmingly affect the freight sector, the impact on passenger fares is likely to be very small.

Change in service levels

- 6.75 Reduced authorisation costs could result in additional new entry into the market, stimulating increased service levels and also stimulate an improved service offer from incumbent operators. Impacts, however, are likely to be isolated to a limited number of specific cases, even in the highest impact options.

Effect on freight transport demand

- 6.76 Reduced authorisation costs could result in additional freight demand through lower prices and improved service offer. However, impact will be very small.

Effect on passenger transport demand

- 6.77 Reduced authorisation costs could result in additional passenger demand through lower prices and improved service offer. However, impact will be very small.

Modal shift (freight)

- 6.78 A proportion of the additional rail freight demand will be abstracted from competing modes of freight transport. The key competitor mode for rail freight is road and therefore the majority of abstracted demand will be drawn from road haulage. However, with only a very small anticipated increase in rail demand, mode shift will be correspondingly very small.

Modal shift (passenger)

- 6.79 A proportion of the additional rail passenger demand will be abstracted from competing modes of passenger transport. However, with only a very small anticipated increase in rail demand, mode shift will be correspondingly very small.

Effect on rail investment

- 6.80 Most railway investment, particularly at an infrastructure level is funded by public investment and as such is politically driven and likely to be independent of vehicle authorisation. There will be some impact on investment through faster authorisation enabling new investments to be brought forward in some instances although this is hard to quantify. Also, both authorisation and opportunity cost savings could be used to finance additional investment but again this is difficult to quantify since these savings could also simply be used to reduce public subsidy requirements. Finally, increased new entry could generate additional investment. However, given the relatively small size of the combined opportunity cost and authorisation cost savings compared to total rolling stock investment (<3% in central case) and an uncertain link between cost savings and additional investment, effects on investment are not likely to be large.

Effect on industry revenue

- 6.81 Impact on industry revenue beyond any direct effects captured in the opportunity cost indicator will be low, reflecting the small changes in demand.

Effect on non-operational costs

- 6.82 The key cost change other than reductions in operational cost changes induced by new entrants will be a reduction in authorisation costs. Whilst the changes are substantial, as a proportion of non-operational costs they will be relatively low.

Effect on public funding

- 6.83 The impact on public funding will be composed of two key components:
- Change in costs and revenues of publicly funded RUs due to new entrants
 - Reduction in authorisation costs borne by publicly funded RUs
- 6.84 Compared to the total level of public funding the effects will be low in all options.

Effect on market structure

- 6.85 The key impact of improved vehicle authorisation will be the removal of a significant barrier to entry for new entrants which will encourage more new entrants to the market. This will be most significant in countries where discrimination against new entrants is currently an issue. For options 4 and 5 this could have a noticeable impact in some countries.

Effect on employment levels and working conditions

- 6.86 There will be some impact on employment levels where additional staff are required to run additional services that become viable. However, in some instances it is likely that a portion of authorisation cost savings could be reflected in job reductions. Total impacts are hard to quantify but overall impacts are likely to be small.
- 6.87 The implementation of different policy measures would also have effects on the employees of NSAs and NoBos. The numeric terms, however, the effect would be rather limited, with staffing variations in the NSAs likely to change between 2 and 10 staff members on average, depending on the policy option implemented. The effects on NoBos would be assumingly negligible, as they would be marginally affected by the policy measure in terms of staff requirements.

Effect on GHG emissions, Noise emissions and Local air quality

- 6.88 Impact on these three indicators will be driven by three effects:
- i) Increased train service levels
 - ii) Faster introduction of more efficient, quieter locomotives
 - iii) Reduced travel on other modes (primarily road haulage and car use)
- 6.89 However, these effects will all be small with the most significant impact being from the introduction of more efficient locomotives.

Rail safety

- 6.90 Impact on safety standards will be very limited especially since safety standards are regulated by external authorities and therefore the key driver of safety standards is the effectiveness of those external bodies rather than the operators themselves. However, it could be suggested that passengers might have different perceptions on the safety of new entrants compared to incumbents although there wasn't any evidence on this from the survey.

Passenger security

- 6.91 Very limited effect with none of the main drivers directly impacting passenger security.

Maintenance Costs

- 6.92 Measure 4.7 (Enhanced role of ERA in identifying potential spare parts to be standardised and coordination of industry activities in this area) has a potential impact on maintenance costs by substantially reducing the cost of and number of spare parts required to be maintained.
- 6.93 Evidence presented by Deutsche Bahn AG and SNCF to a European Parliamentary Lunch on the 8th February 2012 highlighted the substantial cost savings that could be generated by reducing the huge variety of non-standardised spare parts currently in existence.
- 6.94 Spare parts represent a large cost to the rail industry with Deutsche Bahn AG and SNCF alone spending up to €500m a year on spare parts, representing up to 30% of their entire rolling stock purchase budget.

- 6.95 Deutsche Bahn AG estimate that standardisation of the rail wheels they use could reduce the number of wheel types they currently stock from 190 to just 15 with an associated cost saving of 60% on their circa €50m annual wheel budget.
- 6.96 Wheels represent only one area of potential savings with other items for potential standardisation identified by Deutsche Bahn AG and SNCF including:
- Brake discs
 - Wheel set bearings
 - Axles
 - Wheel-set
 - Pantograph contact strips
 - Odometry (train speed measurement)
 - Display's in drivers cabs
 - Brake blocks/brake parts
- 6.97 In total there is the potential to save hundreds of millions of euros annually with the widespread standardisation of spare parts.
- 6.98 Whilst the potential savings from standardisation are large it is not clear whether measure 4.7 is likely to realise a significant portion of these savings. Interested parties (i.e. manufacturers) have a strong interest in maintaining the status quo where they retain a position as monopoly supplier for many products. Therefore some form of legal requirement (e.g. inclusion of standardised parts in TSIs) would be required to achieve significant changes beyond the current voluntary arrangements. However, the Agency carried out a study into the interchangeability of spare parts in 2011 which suggested that TSIs were not the appropriate mechanism with questions as to the feasibility of defining interchangeability in a TSI in a manner that was 'transparent and non-discriminatory'.

Assessment of impacts on micro, small and medium sized enterprises

- 6.99 The Commission Recommendation 2003/361/EC of 6 May 2003 defined micro, small and medium-sized enterprises as follows:
- i) Medium-sized enterprise - employs fewer than 250 persons and whose annual turnover does not exceed EUR 50 million or whose annual balance-sheet total does not exceed EUR 43 million.
 - ii) Small enterprise - employs fewer than 50 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 10 million.
 - iii) Microenterprise - employs fewer than 10 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 2 million
- 6.100 The key company groups impacted by the proposed options are:
- Passenger Railway Undertakings
 - Freight Railway Undertakings
 - NoBos
 - ROSCOs
 - Rolling stock suppliers

- 6.101 For these groups the effects of the proposed options will be primarily positive with reductions in authorisation costs and timescales benefiting both passenger and freight railway undertakings, ROSCOs and Rolling stock suppliers. In addition benefits are likely to be larger proportionately for smaller type sizes which it would be anticipated would disproportionately benefit SMEs. Finally, benefits are likely to be most significant for new entrants currently facing discriminatory authorisation processes, a higher proportion of which will be SMEs than for current incumbents.
- 6.102 The one company group where the options will result in additional costs is for NoBos. This will result from measure 2.1.B proposing coordination and supervision of NoBos in options 2 to 5. However, apart from complying with guidance the main cost for NoBos will be facilitating audits by the Agency which should represent a small cost.
- 6.103 Investigation of a sample of NoBos indicates that a range of companies operate in this area. whilst this is an area of specialism, NoBo company units are often part of a bigger company group, often a large multi-disciplinary group (e.g. Interfleet, Altran Praxis). Medium/small size companies do exist (e.g. Sconrail which is a joint venture between three parent companies).
- 6.104 Given the relatively small impact of the options (and the existence of a similar cost to SME NoBos in all the non-baseline options) we have not undertaken further detailed analysis of the proportion of NoBos which fall into the SME category. However, we also recognise that new entrants to the NoBo market, in particular, could fall in the SME category as the market for NoBos develops.
- 6.105 Therefore, we would recommend that:
- Levels of NoBo audit are proportional to the volume of work carried about by each NoBo
 - Guidance to NoBos from ERA should avoid the creation of administrative costs not directly related to the frontline services of NoBos

Assessment of impacts on sectoral competitiveness

- 6.106 In total the options, as assessed, have a positive economic and social benefit. However, an additional dimension is the impact of the options on different sectors of the economy. Sectors impacted directly by the policy options are:
- Passenger Railway Undertakings
 - Freight Railway Undertakings
 - NoBos
 - ROSCOs
 - Rolling stock suppliers
- 6.107 Suppliers further up the rolling stock chain could also potentially be impacted by the policy options but these will be mainly component part manufacturers whose overall share of the value of the output rolling stock is likely to be small and hence scope for policy options to have large effects further up the supply chain will be limited.

- 6.108 Key questions to be answered with respect to sectoral competitiveness are:
- i) Will the options impact the cost and price competitiveness of the affected sectors?
 - ii) Will the options impact the capacity to innovate of the affected sectors?
 - iii) Will the options impact the international competitiveness of the affected sectors?

Cost and price competitiveness

- 6.109 All the options should improve the rail sector's cost and price competitiveness as a whole with effects in proportion to the reduction in authorisation and certification costs which have already been quantified.
- 6.110 However, if we assess the forecast savings from improved authorisation against total investment in rolling stock, the savings are significantly less. For example, UIC data from 2009 shows a total investment in rolling stock of €3.4bn across the EU. Compared with this total forecast authorisation cost savings of just over €40m p.a. in option 5 represent less than 2% of total investment costs. This suggests potential price competitiveness changes on average are small.
- 6.111 The key benefits of any increased price and cost competitiveness will manifest themselves in the ability of the passenger and freight RU market sectors to attract increased mode share via lower prices. Given significant scope for a significant portion of any cost savings to be accrued directly by the rolling stock supply sector, competitiveness advantages to RUs (for which rolling stock costs are only one component of overall costs) are likely, on average, to be very small.

Capacity to innovate and international competitiveness

- 6.112 There is some scope for the options under consideration to increase the capacity to innovate of the rolling stock supply sector by removing unduly restrictive approaches to authorisation of new rolling stock types. The precise magnitude, however, of this effect is very difficult to ascertain with other highly significant factors also relevant such as the prescriptive (or otherwise) nature of TSIs.
- 6.113 None of the options will significantly affect the rail sector's ability to compete internationally (no impact on authorisations in other countries). It is possible, however, that non-European RUs could find it easier to enter the European market as a result of the options.

Summary

- 6.114 Based on the qualitative analysis outlined in the preceding paragraphs we believe that impacts on sectoral competitiveness will be primarily positive and small and not likely to change the relative merits of the different options.

Assessment of administrative impacts

- 6.115 The administrative costs have been analysed using the methodology described in Appendix D, which has been built out of the standard cost approach set out in the Impact Assessment guideline. This analysis has been carried out on the basis that some of proposed measures entail a variation in the staff needed by ERA to

perform additional tasks, and, in some cases, possible reductions of staff at NSAs due to competences transferred at the central level.

- 6.116 The aim of this analysis is to assess the difference in administrative costs determined by the implementation of the selected policy options against a baseline scenario in which none of the measures are adopted. Although we acknowledge that in the actual baseline scenario there could be administrative cost variations over time (e.g. due by NSAs or ERA staff growth for better implementation of current rules), in this analysis we sought to point out the difference in costs between adopting the policy options or doing nothing. The only assumption regarding the baseline scenario which differs from the present situation is the fact that we assumed the convergence of the different fees, currently applied by the NSAs for the release of the safety certificate, toward a single fee whose value is fixed across the EU.
- 6.117 For each Policy Option, we have sought to disaggregate impacts in order to identify variations in costs on each specific stakeholder groupings, i.e.:
- The Agency (and the Commission particularly in relation to the Horizontal Measures); and
 - National institutions (in particular NSAs).
- 6.118 We have not looked in detail at the Administrative costs of the applicants given that this is the primary output of the main impact assessment discussed above.
- 6.119 For the purpose of this analysis, all costs are indexed to a base year of 2012 and are computed in real terms over the period 2012-2025 using as indicator the Net Present Value at 4% discount rate, which is consistent with the assumption made for the IA model presented in this Chapter.
- 6.120 For the different options we have estimated the net administrative cost by computing:
- The variation in gross administrative costs at Community level (namely variation in ERA costs and in the “separate appeal body” to be created in Options 4 and 5), at national level (variation in NSAs costs) and at the EU level (sum of variation in ERA and NSAs costs); and
 - The variation of potential revenues collected by levying charges for the activities carried on by the NSAs and ERA in relation to the release of safety certificates.
- 6.121 The majority of administrative costs related to the options identified in this document impact primarily on ERA followed by national institutions to varying degrees.
- 6.122 The analysis is supported by a discussion of how potential revenues generated by the issuing of safety certificates could be distributed between the NSAs and ERA in the different options.
- 6.123 We understand that there are considerable difficulties in the Agency receiving revenue to recover the administrative costs of managing such tasks, but it does not seem appropriate to exclude this *a priori* in the analysis. Our investigations into the fees charged by NSAs across the EU showed that the average amount for a

safety certificate is around €10k, although there is a great difference between the average fee in the EU15 (about €19k) and in EU12 (below €2k). We do not believe that this will harm the competitiveness of the sector as the majority of operators would in any case face a reduced fee compared to what they are currently charged.

- 6.124 In our analysis of administrative costs, we took into account the difference between the EU15 and EU12 MSs, in terms of average salaries, average fees charged by NSAs, and average cost of NSAs' staff in order to correctly identify the impact of any potential changes.

Agency related costs - Direct impacts on the Agency

- 6.125 For each of the selected policy options, we have estimated the number of additional staff needed by ERA, on the basis of our assessment of the individual measures included in each option. We have used as our starting point for this analysis the work already undertaken to date by the Agency in relation to its future role. However, our approach to these calculations differs from those used by the Agency and as such our calculations will not match those of the Agency. For example, the Agency considers the single measures that they have identified in autonomy, our analysis identifies where synergies can be achieved between individual measures and thus combines them to give a different result. In addition, we have distributed across years the estimated total variation in staff members to take into account the fact that the recruitment process needs a number of years to be finalised (we have in any case estimated that by 2020 all staff member variation have occurred).
- 6.126 Finally, for exposition purpose, we have included into the figures of ERA staff variation:
- the two additional human resources needed in Option 4 and 5 to set up the “separate appeal body” at the European level, though this is clearly a cost that is not attributable to the Agency, but will be borne by the sector at the European level
 - two additional human resources needed at the European Commission to take forward horizontal measures envisaged in Option 6.
- 6.127 As for staff costs we have also assumed a lower average cost of staff where larger numbers of staff are required as more junior staff will be required when numbers increase and thus decrease the average cost. The Agency estimates roughly €100k of gross cost for each additional staff member. We have therefore assumed the following average staff costs given different additional staff numbers:
- from 1 to 10 additional staff: €100k for each additional staff;
 - from 11 to 50: €90k for each additional staff;
 - from 51 to 150: €80k for each additional staff;
 - over 150: €70k for each additional staff.
- 6.128 For overhead costs we have assumed that this will amount to 25% of direct staff costs. It should be noted that the current figure for the Agency is higher, but economies of scale should make this figure achievable. We have also added estimated costs for other activities related to the individual measures such as the

costs of carrying out tests in laboratories for single components or travel costs for the training options as well as costs related to ERA being able to have revenues. We have again started from the Agency calculations in these measures but, as for the staff costs, have identified where efficiencies are possible in the grouped options. Table 6.19 sets out the results and the consequential impacts on the Agency of the individual options. In order to facilitate the understanding of the estimates we have reported:

- the impacts occurring in a single year - 2020 - chosen as the year when staff changes should have stabilised;
- an indication of the increase in ERA's yearly budget that will be necessary to meet these additional costs; and
- the NPV (in real terms) of the impacts over the 2015-2025 period.

TABLE 6.19 IMPACTS ON AGENCY COSTS (€ MIL.)

Option	Total ERA staff (2011)	Yearly values (2020)						Total Costs NPV (2015-2025)
		Total Additional Staff	Total Direct Staff Costs Increase	Overhead	Other costs	Total Gross Cost Increase	% on current ERA budget	
Option 1: Baseline	154	-	No impacts on administrative costs					
Option 2: Further ERA "Coordination"		20	1.90	0.48	0.50	2.88	14%	19.52
Option 3: ERA as One-Stop-Shop		25	2.35	0.59	0.50	3.44	17%	23.03
Option 4: ERA & NSAs share competencies		37	3.43	0.86	0.30	4.59	23%	30.27
Option 5: ERA takes over activities of NSAs regarding authorisation & certification		302	23.24	5.81	2.00	31.05	154%	221.42
Option 6: Horizontal measures		27	2.53	0.63	0.90	4.06	20%	27.87

Note: These options also contain the potential impact on the Commission which arises particularly in Option 6. Options 4 and 5 contains the effects of the creation of the separate appeal body.

- 6.129 The first thing to note from the table above is that we have not identified any additional costs as a result of the Baseline activities. There is a clear evolution of

activities in Baseline, but we do not believe that this will have a significant impact on Administrative costs for the Agency.

- 6.130 It can be seen from the table that the impact on the costs of the Agency for incremental options 2 to 6 lead to a change in the yearly costs for the Agency of between €2.9 mil and €31 mil. Option 5, has the largest impact in terms of benefits for the industry, but also has the largest cost for the Agency, with the other four options having significantly lower additional costs.

Merging Options 2 - 5 with Option 6 for ERA costs

- 6.131 Four of the measures included in Option 6 entail specific additional tasks for ERA, which may require additional staff involved and other extra costs; however, when merged with other options, the impact on ERA in terms of administrative costs is likely to be rather small. In fact, the only measure that may actually require dedicated staff is measure 4.7 (Enhanced role of ERA in identifying potential spare parts to be standardised and coordination of industry activities in this area). Staff dealing with these activities will be needed and arguably cannot be the same tasked with other traditional NSA's competences (certification, authorisation, etc.).
- 6.132 As regards the other horizontal measures directly involving ERA, we estimate that the impact on administrative costs would be minimal as the additional staff required to accomplish Options 2 to 5 tasks would be able to manage the supervisory and monitoring roles, as well as the advisory and dissemination tasks envisaged by Option 6.
- 6.133 We have nevertheless allowed for an increase in staff numbers. We estimate that 10, 9 and 7 additional staff members would be needed by ERA to implement Option 6 in combination with Option 2, 3 and 4 respectively. As regards Option 5, given the large number of additional staff required, the impact of merging it with option 6 would be negligible. Our estimate of the administrative costs for ERA after this merging is reported Table 5.1.

TABLE 6.20 IMPACTS OF MERGING OPTIONS ON AGENCY COSTS (€m)

Option	Yearly values (2020)						Total Costs NPV (2015-2025)
	Total Additional Staff	Total Direct Staff Costs Increase	Overhead	Other costs	Total Gross Cost Increase	% on current ERA budget	
Option 2	28	2.62	0.66	0.50	3.78	19%	27.54
Option 3	32	2.98	0.75	0.50	4.23	21%	29.36
Option 4	42	3.89	0.97	0.30	5.15	26%	35.22
Option 5	302	23.24	5.81	2.0	31.05	154%	221.42

Impacts on national institutions

- 6.134 In order to estimate the variations in costs determined by a reduction of staff at NSAs, we calculated the average cost of one staff member in EU12 NSAs and EU15 NSAs for our case study countries as this is where we had the most data. This was then compared with the average cost of labour in the two groups of countries in order to have our input data for the analysis. Given that the baseline option includes an evolution and improvement of implementation of the legislation we have assumed that the staff numbers of some of the NSAs will in any case increase slightly.
- 6.135 We have assumed as part of this analysis that, on average, across the Member States, Options 2 to 4 would not have an impact on the unit cost of staff. However, we considered a reduction over time of the existing gap between EU15 and EU12 NSAs salaries, by assuming a 7% annual growth rate (real terms) of EU12 salaries.
- 6.136 We considered that Option 5 would have a very significant impact on NSAs, it is evident that should the Agency take over the competences regarding safety certifications and vehicle authorisations, the NSAs' staff currently dedicated to such activities could be either made redundant or be employed on other tasks. Giving up these tasks would also entail, for the majority of NSAs, losing the revenues from the fees charged to applicants.
- 6.137 Based on our elaborations and assumptions, a reduction of 10 staff from an NSA would lead on average to a cost saving of €600k in a generic NSA, also taking into account the differences between NSAs in the EU12 and EU15 (approximately €220k for EU12 NSAs and about €875k for EU15 NSAs) and the fact that the number of NSAs in the EU15 group is higher. However, it is important to note that this figure would change significantly on a case by case basis. In fact, apart from obvious differences between the most and least developed countries within the EU, in some MSs redundancies in the public sector are highly unlikely where there are also low levels of natural wastage, thus the costs of the current level of staffing is likely to continue to be borne by the NSA or by another body within the public sector.
- 6.138 It is difficult to estimate the impacts in terms of administrative costs on NSAs of the application of the horizontal measures (Option 6). In general, it can be argued that NSAs would face increased costs due to the need to implement the EU rules, requiring tougher standards and the supervision of ERA and the Commission. On the other hand, the enhanced role of ERA in disseminating common rules and advising on their implementation could help to smooth the work load of national institutions. By estimating the effects of the single measures within this option we believe that the second effect will have a higher impact than the first one, leading to a net reduction in staff members per NSA.
- 6.139 The horizontal measures would enhance the effects of other options if applied at the same time.

6.140 Table 6.21 reports a summary of the impact on administrative costs sustained by NSAs of each policy option.

TABLE 6.21 IMPACTS ON NSAs (€ MIL.)

Option	Total Europewide NSA staff working on certification & authorisation (estimate 2011)	Yearly values (2020)				Total NPV in the EU (2015-2025)	
		Total Staff Variation <u>per NSA</u>	Total Direct Staff Costs Saving (Increase) per NSA	Overhead	Total Gross Cost Saving (Increase) per NSA		
Option 1: Baseline	500*	No impacts on administrative costs					
Option 2: Further ERA "Coordination"			0	0	0	0	
Option 3: ERA as One-Stop-Shop		-2	EU12	0.08	0.02	0.09	26
			EU15	0.17	0.04	0.22	
Option 4: ERA & NSAs share competencies		-3	EU12	0.11	0.03	0.14	42
			EU15	0.26	0.07	0.33	
Option 5: ERA takes over activities of NSAs regarding authorisation & certification		-10	EU12	0.38	0.09	0.47	151
			EU15	0.87	0.22	1.09	
Option 6: Horizontal measures		-2	EU12	0.08	0.02	0.09	37
			EU15	0.17	0.04	0.22	

* Estimated value based on the Interoperability and Safety Reports of the Agency assuming that EBA staff in regional offices is not counted as certification and authorisation staff, but is assumed to be inspection and auditing staff.

6.141 It can be seen from the table that the impact on the costs of the Agency for incremental options 3 to 6 lead to a change in the yearly costs for the NSAs of between €0.09 mil and €0.47 mil in the EU12 and between €0.22 mil and €1.09 mil in the EU15. Clearly, Option 5 has the largest benefit the national public purse in terms of the impact on the NSAs, with the other four options leading to lower cost savings.

Merging Options 2 - 5 with Option 6 for NSA costs

6.142 The main impact on the institutions in terms of administrative costs is related to the necessity of respecting tighter parameters in the implementation of the EU legislation, due to control and supervision from ERA and other EU institutions.

- 6.143 On the other hand, NSAs would benefit from the guidance and monitoring by ERA, of a clearer legislative framework (e.g. by migrating from national technical and safety rules to a system of EU rules) and from guidance from the Commission.
- 6.144 In order to estimate the variation in NSAs staff as a consequence of the implementation of option 6 together with other options we have relied on the horizontal measures impact matrix shown in Table 6.13. This implies that, for example, in the case of Option 2 and 3, the impacts of horizontal measures are almost a direct addition to those of the other options, while in the case of the other options, the horizontal measures have a lower effect. The related administrative costs on NSAs for merged options are presented in Table 6.22.

TABLE 6.22 IMPACTS OF MERGING OPTIONS ON NSAs (€MIL.)

Option	Total Europewide NSA staff working on certification & authorisation (estimate 2011)	Yearly values (2020)					Total NPV in the EU (2015-2025)
		Total Staff Variation per NSA	Total Direct Staff Costs Saving (Increase) per NSA	Overhead	Total Gross Cost Saving (Increase) per NSA		
Option 2: Further ERA “Coordination”	500*	-2	EU12	0.08	0.02	0.09	37
			EU15	0.17	0.04	0.22	
Option 3: ERA as One-Stop-Shop		-4	EU12	0.09	0.02	0.11	55
			EU15	0.35	0.09	0.44	
Option 4: ERA & NSAs share competencies		-5	EU12	0.11	0.03	0.14	68
			EU15	0.44	0.11	0.55	
Option 5: ERA takes over activities of NSAs regarding authorisation & certification		-11	EU12	0.24	0.06	0.30	152
			EU15	0.96	0.24	1.20	

* Estimated value based on the Interoperability and Safety Reports of the Agency assuming that EBA staff in regional offices is not counted as certification and authorisation staff, but is assumed to be inspection and auditing staff.

- 6.145 In terms of administrative costs, merging options would, to certain extent, reduce total costs for Options 2 to 5. The benefits of implementing Option 6, in terms of improved harmonisation and smoothness in the functioning of the rail institutions could lead in the medium to long term effect of reducing the administrative costs generated by the effort required to NSAs and ERA to apply the horizontal measure.
- 6.146 The following table reports the estimated impacts on administrative costs of ERA and of the national institutions respectively for each of the policy options analysed. For all options, except for option 5, we have estimated an overall

reduction in administrative costs due to the fact that the additional costs incurred by ERA can be compensated by the cost savings registered by the NSAs.

TABLE 6.23 CHANGE IN AGENCY AND NSA COSTS (€M NPV 2015-2025)

Option	Total estimated <u>cost variation</u> for ERA (€M.)	Total estimated <u>cost variation</u> for NSAs (€M.)	Total change in administrative costs (€M.)
	A	B	C=A+B
Option 2	28	-37	-9
Option 3	29	-55	-25
Option 4	35	-68	-33
Option 5	221	-152	69

Note 1: Negative values indicate cost decreases.

Note 2: Option 6 is already incorporated into these options.

- 6.147 The table above clearly shows that Option 4 is the one that leads to higher cost savings (€33 mil.), while the implementation of Option 5 is expected to impose an increase in administrative costs of about €69 mil.
- 6.148 To complete the analysis of administrative costs we have investigated how potential fee revenues could vary for the institutions involved in the different options. The input data for this analysis has been the total number of safety certificates issued and vehicle authorisations granted in recent years as well as the average fees for these two activities.
- 6.149 To facilitate this analysis we have assumed there is a standardisation of the fees paid to NSAs (or, eventually, to ERA) in different MS for all the incremental Options (2 to 5) above the baseline, which has been set equal to €10k per safety certificate and €17k per vehicle authorisation. This implies a reduction in the fees per safety certificate collected by EU15 NSAs (from an average of €20k to €10k) and an increase in those raised by EU12 NSAs (from an average of €3k to €10k). It also implies a reduction in the fees per vehicle authorisation collected by EU15 NSAs (from an average of €28k to €17k) and an increase in those raised by EU12 NSAs (from an average of €11k to €17k). The standardised authorisation fee has been set to reflect the shorter authorisation timescales in options 2 to 5 and is common across options 2- 5 given that the final reduction in authorisation timescales for these options is very similar when combined with the horizontal measures. The variation in fee revenues for NSAs and the Agency in options 2 to 5 is set out in the Table 6.24 below. The table shows how total fee revenue decreases in options 2-5, reflecting the lower standardised fee rates, and also how the fee revenue is divided between the NSAs and the Agency under different revenue sharing options which are discussed in more detail below.

TABLE 6.24 IMPACTS OF OPTIONS ON NSAs AND AGENCY REVENUES (€m)

Option	Revenue sharing criteria	NSAs Revenue Increase (Decrease) - NPV across the EU (2015-2025)	Agency Revenue Increase (Decrease) - NPV (2015-2025)	Net change in revenues (NSAs + ERA) - NPV
Option 2: Further ERA "Coordination"	100% NSAs	(29.42)	-	(29.42)
Option 3: ERA as One-Stop-Shop	100% NSAs	(29.42)	-	(29.42)
Option 4: ERA & NSAs share competencies	a. 25% NSAs 75% ERA	(85.84)	56.43	(29.42)
	b. 50% NSAs 50% ERA	(67.04)	37.62	(29.42)
	c. 75% NSAs 25% ERA	(48.23)	18.81	(29.42)
Option 5: ERA takes over activities of NSAs regarding authorisation & certification	100% ERA	(104.65)	75.23	(29.42)

- 6.150 Taking into account the actual number of certificates and authorisations currently issued in EU 12 and EU 15 MS, and the fact that over time there will be a gradual reduction in the total number of vehicle type authorisations as discussed earlier in the chapter, this leads to a reduction in total fees across the EU of about €29 mil. in NPV terms between 2015 and 2025 in options 2 to 5 compared to the baseline. This net reduction is driven exclusively by the standardisation of fees set out in the previous paragraph and is therefore not affected by the distribution of revenues between the NSAs and the Agency.
- 6.151 We have then distributed the total amount of potential revenues between NSAs and ERA, defining the criteria (percentages) of revenue sharing according to the different tasks assigned to them in the respective options. As Options 2 and 3 do not entail a transfer of responsibilities for certification and authorisation, we have assumed that there is no possibility of revenue sharing. In the case of Option 4, the three alternative criteria of revenue sharing set out in the table above were tested to see the impact on cost coverage of the Agency.
- 6.152 The analysis focused on the extent to which future revenues collected by the Agency for its part of issuing of safety certificates and vehicle authorisation can cover the additional costs of the Agency. The results of this are set out in Table 6.25 below.

TABLE 6.25 COST COVERAGE OF INCREMENTAL AGENCY COSTS & ADDITIONAL CALL ON EU BUDGET

Option	Revenue sharing criteria	NSAs Revenue Increase (Decrease) - NPV (€ mil.)*	Agency Revenue Increase (Decrease) - NPV (€ mil.)	Additional Agency costs (€ mil.) (from Table 6.23)	Coverage of additional Agency costs	Additional call on EU budget (€ mil.)
Option 2: Further ERA "Coordination"	100% NSAs	(29.42)	-	28	0%	28
Option 3: ERA as One-Stop-Shop	100% NSAs	(29.42)	-	29	0%	29
Option 4: ERA & NSAs share competencies	a. 25% NSAs 75% ERA	(85.84)	56.43	35	160%	0
	b. 50% NSAs 50% ERA	(67.04)	37.62	35	107%	0
	c. 75% NSAs 25% ERA	(48.23)	18.81	35	53%	18
Option 5: ERA takes over activities of NSAs regarding authorisation & certification	100% ERA	(104.65)	75.23	221	34%	155

Note: * represents the amount of EU-wide revenue foregone by the NSAs.

- 6.153 Table 6.25 above shows that in Options 4 and 5 ERA is able to cover a significant part of its incremental costs related to safety certification and vehicle authorisation. The last column shows the additional call on the EU budget from the various options.
- 6.154 In particular, Option 4a, with the assignment of 75% of revenues to ERA, is the one that grants the highest coverage (160%) of additional Agency costs related to safety certification and authorisation activities. Conversely Option 5 is the one showing the least coverage of costs. Although the Agency is assumed to keep all potential fees generated by these activities, this will not be sufficient to cover the incremental costs of the substantial increase in Agency staff required. We note however that given the amount of work that will still need to be done by NSA technical experts in Option 4, it will be very difficult to justify giving the NSA such a small share of the revenue as envisaged in Option 4a.
- 6.155 The overall results of the impact assessment (taking into consideration the costs and the benefits) are set out in Table 6.26 below.
- 6.156 The table shows the results of the impact assessment calculator set out above, the Admin costs calculator in relation to the total benefits (costs) of moving activities to the Agency, the change in ERA/NSA revenue that needs to be netted off to avoid double counting authorisation fee savings to RUs already included in the impact assessment calculator^{26,27}, the total net benefits for each option and, finally, the additional funds from the EU budget that will need to be provided to cover the additional costs of the Agency for each option.

²⁶ See paragraph 6.17

²⁷ This value - €28 mil. - is lower than the value shown in the last column of Table 6.24 (€29 mil.) as it represents only the authorisation fee element which needs to be removed to avoid double counting while the safety certification fees are not counted in the impact assessment calculator and as such there is no double counting. See paragraph 6.20

TABLE 6.26 DISCOUNTED COST SAVINGS (INCREASE) 2015-2025 (NPV €M)

Option	Impact assessment calculator			Admin costs calculator	ERA/NSA authorisation fee revenue loss*	Total net benefit	Additional funds necessary from EU budget to cover ERA costs (€ mil.) - Table 6.25
	Authorisation	Safety certification	Opportunity costs	Cost savings (increase)			
Option 2: Further ERA "Coordination"	201	2	237	9	(28)	420	28
Option 3: ERA as One-Stop-Shop	217	2	255	25	(28)	471	29
Option 4: ERA & NSAs share competencies	235	2	265	33	(28)	508	a: 0
							b: 0
							c: 18
Option 5: ERA takes over activities of NSAs regarding authorisation & certification	276	3	295	(69)	(28)	477	155

Note: Option 6 is already incorporated into these options.

*See footnote on previous page.

Impact assessment results compared to the operational objectives

- 6.157 As a final step we have also compared the results of the impact assessment with the operational objectives set out in Chapter 4. As noted at the end of that Chapter, we modified the objectives to reflect the fact that the evolution of the baseline meant that many of the original objectives already went a long way to meeting the necessary objectives.
- 6.158 The tables below show the results of the impact assessment in relation to the individual Options and the operational objectives (the options below are already taking into consideration the combined options, with Option 6 incorporated within Options 2 to 5).

TABLE 6.27 OPERATIONAL OBJECTIVE RESULTS BY OPTION

Option	Total authorisation costs reduction on baseline in 2025	Total authorisation timescales reduction on baseline in 2025	Average time to market reduction on baseline in 2025
Option 1	0%	0%	0%
Option 2	19%	17%	19%
Option 3	20%	18%	22%
Option 4	24%	22%	25%
Option 5	24%	22%	30%

- 6.159 For total authorisation costs and timescales it can be seen that the operational objectives requiring a reduction of 20% are achieved in 2025 only in Options 4 and 5. While for the operational objective relating to average time to market (RU safety certification plus vehicle authorisation timescale) the objective of a reduction greater than the baseline is achieved also in Option 3. The operational objective relating to national rules is achieved through the measures contained in Option 6, and given that Option 6 has now been joined to each Option 2 to 5, this operational objective is achieved through all incremental options.
- 6.160 In addition to the operational objectives in Table 6.27 for completeness we present the reduction in safety certification costs in 2025 compared to the baseline for each option. Note that changes for timescales and costs are different, reflecting different sources of underlying data for the two impacts which suggested that there was more scope for time reductions than cost reductions.

TABLE 6.28 SAFETY CERTIFICATION CHANGES IN 2025

Option	Total certification costs reduction on baseline in 2025	Total certification timescales reduction on baseline in 2025
Option 1	0%	0%
Option 2	16%	25%
Option 3	19%	30%
Option 4	19%	33%
Option 5	20%	46%

7 Conclusions and recommendations

Introduction

- 7.1 This chapter sets out the Conclusions drawn from the impact assessment results and analysis described in Chapter 6, which in turn build on the analysis that has been carried out throughout the study looking at:
- the Market Situation (Chapter 2) which identified the main concerns as being the functioning of the national institutions and the technical and administrative barriers that persist in the market that are hindering the competitiveness of the rail sector and leading to a poor market share for rail, both in the freight and passenger markets;
 - the Problem Definition (Chapter 3) which set out the four main causes (drivers)²⁸ that affect the market structure identified in Chapter 2 as well as the elements that feed into these drivers;
 - the Objectives of the Policy Initiative (Chapter 4) which aim to address directly the problems and constraints identified in Chapters 2 and 3; and
 - the Policy Options (Chapter 5) that needed to be assessed to address the problems and meet the objectives of the study.

Summary of results

- 7.2 The estimated net impact of each of the assessed options on the industry, the Agency and the national institutions is summarised in the table below.

TABLE 7.1 DISCOUNTED NET BENEFIT OF IMPACTS 2015-2025 (NPV €M)

Option	Total
Option 2: Further ERA “Coordination”	420
Option 3: ERA as One-Stop-Shop	471
Option 4: ERA & NSAs share competencies	508
Option 5: ERA takes over activities of NSAs regarding authorisation & certification	477

Note: Option 6 is already incorporated into these options. See Table 6.26 above for breakdown of figures.

- 7.3 The results in the table above show that all of the options have a net benefit compared to the base Option 1. The most favourable option based on the impact assessment analysis is Option 4, as it gives the highest net benefit in monetary terms in the long run. We have not apportioned any specific weights to the different results as this has already been factored within the calculations of the model. This is consistent with the view of the majority of stakeholders that ERA should have a greater role in the market.

²⁸ We noted that Problem Driver 4 was partially out of scope for this study.

7.4 Chapter 6 shows that in addition to the proposed new fee structure for safety certificates and vehicle authorisations the split between ERA and national institution revenue can result in different levels of cost coverage for the ERA budget, these are summarised out in the table below (a full version of the analysis is set out in Chapter 6). The final two columns of this table show firstly the reduction in EU-wide NSA revenue from the various options and secondly the call on the EU budget for the same options.

TABLE 7.2 REVENUE SHARING AND ERA COST COVERAGE

Option	Revenue sharing criteria	Coverage of Additional Agency Costs	Loss in NSA revenue (€ mil.)	Increase in ERA revenues from external fees (€ mil.)	Call on EU budget (€ mil.)
Option 2: Further ERA "Coordination"	100% NSAs	-	(29.42)	-	28
Option 3: ERA as One-Stop-Shop	100% NSAs	-	(29.42)	-	29
Option 4: ERA & NSAs share competencies	a. 25% NSAs/75% ERA	160%	(85.84)	56.43	0
	b. 50% NSAs/50% ERA	107%	(67.04)	37.62	0
	c. 75% NSAs/25% ERA	53%	(48.23)	18.81	18
Option 5: ERA takes over activities of NSAs regarding authorisation & certification	100% ERA	34%	(104.65)	75.23	155

Note: The full version of the table is included in Table 6.25

7.5 To recap, Option 4 is made up of the following individual measures:

- ERA shares the competences with the NSAs regarding granting of safety certificates & vehicle authorisations: a "one stop shop" concept with the NSAs (acting as regional offices of ERA) contributing but the final decision rests with ERA.
- Migration to a single (common) safety certificate and single vehicle authorisation (setting up European "passport" for vehicles): ERA issues single safety certificates and single vehicle authorisations - (Appeals to ERA decisions are sent to a separate appeal body)
- Enhanced "coordination" and supervision role of ERA with respect to Notified Bodies regarding: type approval; rail vehicles certification; ERTMS certification and accreditation of NoBos.
- Strengthened action by the Commission outside infringement procedure, notably on non-discrimination in the railway market

- Amendment of the directives to enable the adoption of implementing measures setting out common principles & practices for national authorities
- Enhanced role of ERA in monitoring and control of implementation of national safety and interoperability legislation
- Migrating from national technical & safety rules to a system of EU rules through clear requirement of national rules need to be removed by national authorities with national authorities tasked with the role of removing them and limiting their possibility of adopting new rules.
- Enhanced role of ERA in dissemination of railway-related information and training.
- Enhanced role of ERA in providing advice & support for Member States & other stakeholders in implementing legislation on safety & interoperability
- Communication from the Commission regarding guidelines on the interpretation of specific EU laws & decisions (including TSIs)
- Enhanced role of ERA in identifying potential spare parts to be standardised and coordination of industry activities in this area.

Addressing the problems identified in Chapter 3

7.6 The problems elements identified in Chapter 3 were the following:

- Deficit/lack of sufficient resources of some NSAs to effectively perform their tasks;
- Insufficient independence of the NSAs from the IMs, incumbent RU and/or the ministry;
- Granting by NSAs of safety & the authorisations of placing into service is too slow in some cases;
- Reluctance of some NSAs to accept safety certificates & authorisations of placing in service of vehicles & subsystems granted by other NSAs;
- Deficit/lack of sufficient resources of some NoBos to effectively perform their tasks;
- Insufficient independence of NoBos from the IMs, RUs, the ministry or other actors;
- The level of monitoring & control of implementation of the interoperability and safety legislation by MSs is not sufficient;
- National technical & safety rules sometimes pose transparency and/or discrimination problems;
- Problems with proper implementation of directives; too divergent interpretation of the directives;
- Insufficient level of dissemination of railway-related information and training;
- Deficit/lack of sufficient resources of some RBs to effectively perform their tasks; and
- Insufficient independence of RBs from the IMs, incumbent RUs and/or the ministry.

7.7 We describe in more detail in Chapter 5 (par.5.38 and following) and summarised in Appendix C the individual problem elements and which individual measures

addressed the problem elements. The table below summarises Table 5.2 in relation to the options as a whole.

TABLE 7.3 OPTIONS/PROBLEM ELEMENTS COMPARISON

Option	Number of problem elements addressed
2	8
3	8
4	10
5	10

- 7.8 The table shows that Options 4 and 5 address the most number of problem elements. As can be seen, none of the options address the problems related to Regulatory Bodies for the reasons set out in Chapter 5 and in Appendix C. We acknowledge that these problems are important and that they have a bearing on the creation of a Single European Railway market. They cannot be addressed through this policy initiative which focuses on the European Railway Agency and the legislation that underpins the activities of the Agency (the Regulation and the Interoperability and Safety Directives). However, the majority of the issues related to these problems are being addressed through the Rail Recast.

Meeting the objectives in Chapter 4

- 7.9 As set out in Chapter 4, the main operational objectives proposed for the policy initiative are:
- Operational Objective 1: To achieve, by 2025, a simplification of legislation by the removal of all unnecessary national rules.
 - Operational Objective 2: To achieve in 2025 a 20% reduction in the time to market for new railway undertakings above the baseline situation in 2025.
 - Operational Objective 3: To achieve in 2025, a 20% reduction in the cost and duration of the certification of rolling stock above the baseline situation in 2025.
- 7.10 We noted in Chapter 6 that the results of the impact assessment model suggest that:
- Operational Objective 1 is achieved through the specific measures identified in the horizontal actions within Option 6. As this is now part of all the incremental Options, this objective is achieved by all of them.
 - Operational Objective 2 is achieved in Options 3, 4 and 5 with reductions of 21%, 24% and 30% respectively.
 - Operational Objective 3 is achieved only in Options 4 and 5 with average authorisation timescales falling by 20% and 22% respectively by 2025 and authorisation costs falling by 21% and 23% respectively by 2025.

Summary of conclusions

7.11 Looking at the results of the various options we can translate the impact assessment results, the meeting of problems and the achieving of the objectives into effectiveness, coherence and efficiency respectively. These are summarised in the table below.

TABLE 7.4 EFFECTIVENESS, COHERENCE AND EFFICIENCY

Option	Effectiveness (Total Net Benefit € mil.)	Coherence (number of individual problems addressed)	Efficiency (number of operational objectives met)
2	420	8	1
3	471	8	2
4	508	10	3
5	477	10	3

7.12 This table shows that combining the quantitative elements with the qualitative coherence and efficiency elements of the analysis option 4 remains the favoured option. Although it should be noted that the coherence and efficiency scores are the same for options 4 and 5.

7.13 In conclusion, Option 4 provides the best balance of outcomes in relation to:

- the industry, in terms of reduced costs and timescales for safety certification and vehicle and other sub-system authorisation,
- cost implications for the EU budget in terms of incremental costs of the Agency;
- the cost impacts on national institutions;
- the potential impact on subsidiarity;
- addressing the problems identified in Chapter 3; and
- meeting the objectives in Chapter 4.

7.14 We also note that these conclusions are in line with those of the Vehicle Acceptance Working Group as set out in the position paper published by the Commission which can be summarised as follows:

- A.1 MSs should apply Directive 2008/57/EC taking into account the explanations provided by the Recommendation 2011/217/EU and its future updates.
- A.2 The Agency could have a reinforced role in the monitoring of the implementation of the Directives and TSIs in MS.
- A.3 The Agency and the Commission should analyse potential conflicts, notified by the stakeholders, with other non-rail EU legislation.
- A.4 The TSIs, and possibly also other relevant Commission acts, could be progressively transformed into Regulations.
- A.5 MS and the Commission should minimise further legal changes.

- A.6 The Agency should carry out appropriate actions for training and dissemination of knowledge about the vehicle authorisation process.
- A.7 Duplicate verifications of the common parts of vehicle designs should be avoided by exploiting the concepts of: a) vehicle type authorisation, b) validity of the certificates and verifications for the part of the design that remains unchanged, and c) Intermediate Statements of Verification.
- B.1 MS should publish and notify network-related rules and procedures in the national reference document and Notif-IT and other places.
- B.2 NSA must ensure through the supervision of the SMS that IMs maintain their networks in compliance with the TSIs and national rules.
- B.3 The national legal frameworks must ensure that there is one authorisation for placing in service of vehicles and that it is given by the NSA.
- B.4 Legislation in the MS shall state that the applicant is the sole responsible for a subsystem or vehicle in its design operating state meeting the essential requirements.
- B.5 Both MS and EC should minimise further organisational changes.
- B.6 It should be considered reinforcing the role of the Agency in the vehicle authorisation process, e.g. as 'one-stop-shop' for vehicle authorisation.
- B.7 ERA could also have a reinforced role in coordinating the NoBos
- C.1 MS, with the help of the sector, should remove national rules which are redundant or in conflict with the TSIs.
- C.2 TSIs shall be revised giving priority to closure of open points (2012-2013) and extension to off-TEN (on-going). Revised TSIs should also cover the compatibility with existing (not TSI-conform) network in TSIs, if necessary with specific cases.
- C.3 The Commission and the Agency shall clarify the criteria for mutual recognition of national rules in the application guide of the reference document.
- C.4 MS should implement ERTMS upgrades at least to version 2.3.0d. Certificates should clearly indicate any deviation in the expected impact on operation.
- D.1 In order to avoid unnecessary repetition of tests the sector should make use of the intermediate statement of verification (ISV). Furthermore, Loc&Pas TSI explicitly indicates the validity of the certificate for the parts which have not been modified. This principle could be extended to all subsystems in the future TSIs revisions as well as to the national notified technical rules (NNTR).
- D.2 Assessment criteria, assessment reports, measurement procedures should be harmonised through TSIs, European standards or ERA technical documents. Simulation tests should be used where possible.
- D.3 The Agency should reduce and progressively eliminate any need of verification beyond the conformity with the TSIs (see C.2).
- D.4 Associations should appeal against inappropriate rules or non-conforming processes, at any time and independently from any particular project. ERA could also act as appeal body.

- D.5 In order to address the language issue, mutual recognition should be clarified and enforced to reduce the need of translations. Furthermore, the Agency should define a common format for key documents. Finally, all actors should consider voluntary use of a limited number of common languages.
- 7.15 Furthermore, we note that these activities are in line with the type of role that EASA and EMSA have within their respective sectors which allow for direction of the sector without impacting on the subsidiarity of Member State institutions. It should be noted that we have not consulted on these final options, but we have consulted on the individual measures that make up the various options as set out in Chapter 5 and in Appendix B and the stakeholders were generally in favour of the measures that make up Option 4.

Recommendations

- 7.16 This section sets out our recommendations based on the assumption that Option 4 will be taken forward as the preferred policy. In this section we explain the implications of Option 4 in terms of the required legislative changes and structural changes to the sector and how they should be implemented. We have not provided detailed wording for the legislation as this will be a matter for the legislators, although we have set out key principles that will need to be in place for it to be effective.
- 7.17 We propose that the Agency should continue on its path to implementing the recommendations that came out of our Evaluation of Regulation 881/2004 published in 2011. This is fundamental as setting up appropriate governance for the Agency is a first step in ensuring that the additional tasks set out in Option 4 can be carried out effectively. It is encouraging to note that many of these recommendations have already been implemented.
- 7.18 The roles identified in Option 4 for the Agency and the Commission imply some significant changes to the powers assigned to the Agency. This option would require the Agency to be more than just a partner for the industry, as it will require a more hands on approach to the sector. This would mean that, for example, the Agency could not adjudicate on appeals where it would have the final say on certifications and authorisations. From our understanding it seems clear that the appeals in this case should be lodged with the appeal body.
- 7.19 Many of the activities that are included in Option 4 would require that the Agency acquire both additional staff and new skills. It is fundamental that the Agency develop a clear and structured approach to meeting these staff requirements, as well as meeting its on-going obligations. The risk is that these additional tasks will distract the Agency from its day-to-day activities. We recommend that an appropriate action plan is developed to address the expansion and that this is shared and agreed with the Administrative Board and with the Commission. We also recommend that the Representative Bodies are consulted in this process.
- 7.20 Finally, we recommend that the Agency works closely with the Commission to ensure that the details of Option 4 are developed in order to facilitate an expeditious and effective transition into its new role.

Key provisions: overview

7.21 Option 4 entails a number of key changes to the legislative framework in order for the new structure to function. The changes will relate to:

- Regulation 881/2004/EC setting up the European Railway Agency
- The Safety Directive (2004/49/EC and subsequent amendments)
- The Interoperability Directive (2008/57/EC and subsequent amendments)

7.22 We set out below each of the measures of Option 4 and re-cap their main characteristics and identify which Article in the relevant legislation needs to change as a result. The aim here is to identify what the overarching goal is for each measure (the spirit of the change) and the legislative requirements for the individual measure (the letter of the changes).

ERA and NSAs share competencies

7.23 It should be noted that the changes proposed under Option 4 relate only to certification and authorisation. On-going checking of conformity with the requirements of the safety certificates and compatibility of the rolling stock is a competence that would remain with the NSAs and with no involvement of the Agency.

*The spirit of the changes**Structure*

7.24 As discussed in Chapter 5, this measure implies a significant change in the activities of the Agency. The Agency in this case would have direct control of the activities of the NSAs, who would become regional offices of the Agency in relation to safety certification and authorisation.

7.25 The staff dealing with the detailed analysis of the national specific requirements would remain NSA staff and thus paid and employed by the NSA, but they would report to a representative of ERA (who would be an ERA salaried employee,) who would be based at the NSA and would be tasked with ensuring that the process for safety certification and authorisation is followed according to a defined process (as described below). That ERA employee would be tasked with signing off the decision of the experts. ERA would be responsible and liable for the decision to award, or otherwise, the safety certificate or authorisation.²⁹ As a result, the ERA employee would need to be appropriately qualified to take that decision. The employee would also have to have a detailed understanding of national specific issues in the initial years, while in the longer term, with increased interoperability and reduced national rules, this may become less important.

7.26 The national technical experts should remain as employees of the relevant NSA, as they will potentially have other tasks within the NSA, such as checking conformity to SMS, and auditing railway undertakings. Creating separation of such tasks in this case would mean duplicating a structure unnecessarily.

²⁹ We have not included detailed provisions for the future liability of the Agency as this is outside the scope of this study.

- 7.27 The different national structures and work load would also mean that the total number of ERA employees may vary in Member States. We have assumed an average across all Member States, but it would be up to the Agency to determine the appropriate number of staff required.

Financial transfers

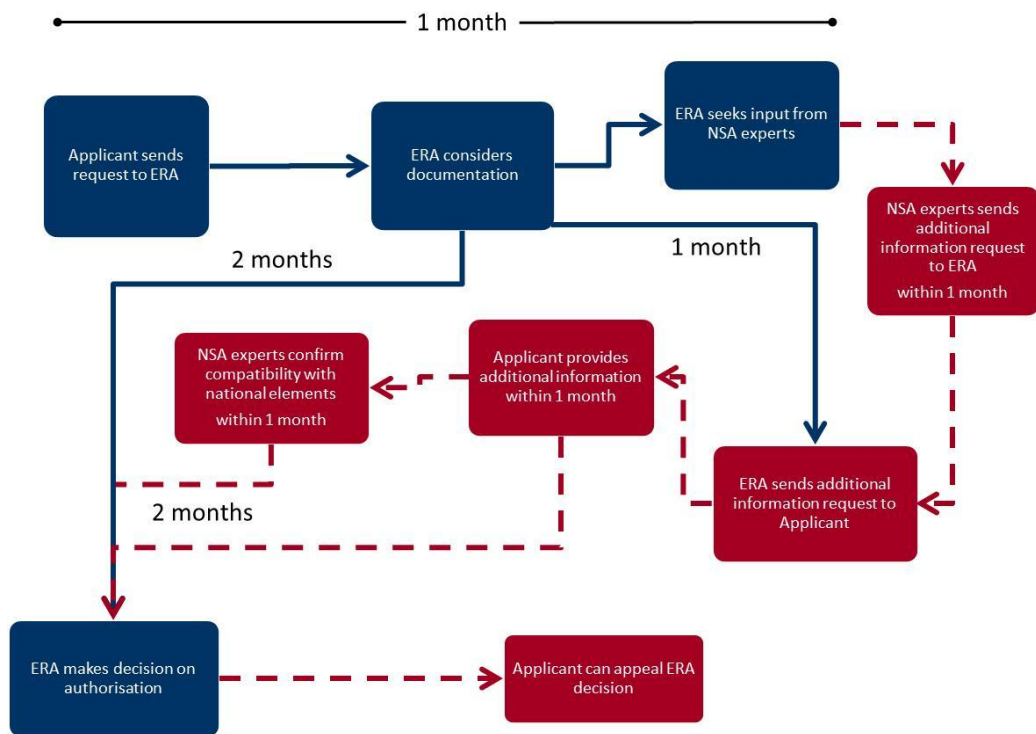
- 7.28 We discussed in Chapter 6 how we believe safety certification should be charged as an average fee across all Member States, which creates a net benefit for operators across the EU. Authorisation would also be charged at an average of current levels.
- 7.29 Given that these fees would need to be paid to the Agency, there will need to be some financial transfers from the Agency to the NSAs to cover the costs of the NSA experts. We have developed scenarios in the previous chapter setting out the possible approach in relation to the transfer of revenue for charges to the NSAs. We have assumed 3 different scenarios, with each giving a different level of cost coverage for the change in Agency costs. This implies that for some NSAs they will receive less revenue than currently and the Member States will therefore have to cover the remaining additional costs from the loss of income. As mentioned in the previous chapter, the calculation for vehicle authorisation costs is more difficult, but we assume that a similar approach in terms of financial transfers as that envisaged for safety certification could be adopted.
- 7.30 This payment would also cover the cost of ERA staff using NSA facilities during the secondment, as all other ERA staff costs would be covered directly by the Agency.

Process

- 7.31 Time and cost savings will be realised as a result of a clear, common approach to safety certification and authorisation. For this to happen, the Agency will need to provide clear guidelines that the NSA experts would be required to follow in terms of how to check conformity of railway equipment and vehicles. An element of this checking process will still remain in the hands of NSA experts, as they would remain the experts for each national network, although this would decrease as national rules are progressively removed and following Agency supervision.
- 7.32 As a first step, the Agency should consider preparing a process map, learning from the experiences of those who have already been undertaking this role on a national basis (in particular EBA - although we understand that their specific process is not compliant with the Interoperability Directive). Each NSA would need to ensure that it implements its part of this process in a coherent manner with the Agency providing guidelines on how this is to be implemented.
- 7.33 This guidance should set out to the industry the details of cost and timescale values to be observed for authorisation. Chapter 6 sets out our assumptions on costs. In terms of timescales, we recognise that most NSAs currently work on the basis of a maximum four month period from the date of receipt of all relevant documentation. We acknowledge that there are problems with this as the 4 months only starts when the NSA states that it has all the required documentation in place. We believe, however, that under Option 4, this timescale should remain the same as the Agency should be bound by the same limitations when it acts as a One-Stop-Shop. The main difference that we see through Option 4 (also applicable

with Options 2 and 3) is that before this deadline, the Agency (also on behalf of the NSAs related activities) has only one chance to ask for additional information from the applicant, and it must ask for this information within 1 month of receiving the applicant's documentation. Having made this request, the Agency can no longer ask for further information. The figure below summarises this process.

FIGURE 7.1 AUTHORISATION PROCESS MAP



- 7.34 As part of this process, the Agency will also be required to report on the actual time taken to authorise rolling stock or equipment against a KPI target in relation to the Annual Work Programme.
- 7.35 The guidance to the applicants will also need to be explicit on what documentation and tests they need to provide to ensure that their application is processed quickly. While it may be expected that in the initial years of activity this may take some time, this should in any case be less than the current timescales for authorisation.
- 7.36 Each authorisation would be provided in the form of a Decision by the Agency. Currently, the Agency cannot take formal decisions, just make recommendations and issue technical opinions. This will need to be changed for it to take on many of the roles set out in Option 4.
- 7.37 Given that, under Option 4, the Agency would be both a specifier to the industry (through TSIs) and decision maker on the granting of authorisations and safety certificates, an applicant unsatisfied with the decisions of the Agency will need a channel of appeal to a separate body. We suggest that, in order to keep the process as streamlined as possible and avoid unnecessary delays, the appeal process should pass through an independent ombudsman as mentioned in Chapter

5. We have allowed for this extra role within the administrative costs of the industry discussed in Chapter 6. The exact role and powers of the independent ombudsman would be identified at a future date, but its creation would require a change of law as discussed below.

The letter of the changes

7.38 This aspect would require the following changes to the various Directives and Regulations legislation:

- Regulation 881/2004 (as amended by Regulation 1335/2008):
 - Article 1 relating to the objectives of the Agency,
 - Article 2 relating to the types of acts of the Agency,
 - Article 5 relating to the consultation of rail freight customers and passengers,
 - Article 6 relating to technical support,
 - Article 7 relating to safety certificates,
 - Article 9 relating to the monitoring of safety performance,
 - Article 12 relating to the technical support provided by the Agency,
 - Article 14 relating to the monitoring of interoperability,
 - Article 16b relating to train drivers, and
 - Insert new article to reflect the existence of the ombudsman, the role of the ombudsman as well as its processes including: who can appeal, how to appeal and within which timescales decisions are made.
 - Insert additional articles on the timescales for the issuing of safety certificates and authorisations and the structure and contents of the guidelines for NSAs.
- Directive 2004/49/EC (as amended by Directive 2008/57/EC, Directive 2008/110/EC and Directive 2009/149/EC):
 - Article 10 relating to safety certificates,
 - Article 12 relating to the application requirements relating to safety certification and safety authorisation,
 - Article 15 relating to the harmonisation of safety certificates,
 - Article 16 relating to the tasks of the NSAs, and
 - Article 17 relating to the decision-making principles of the NSAs.
- **Directive 2008/57/EC:**
 - Article 13 relating to the procedure for 'EC' declaration of conformity or suitability for use,
 - Article 15 relating to the procedure for placing in service,
 - Article 18 relating to the procedure for establishing the 'EC' declaration of verification,
 - Article 20 relating to the placing in service of existing subsystems after renewal or upgrading,
 - Article 21 relating to the authorisation for placing in service of vehicles,
 - Article 22 relating to the first authorisation for placing in service of TSI conform vehicles,

- Article 23 relating to additional authorisations for placing in service of TSI conform vehicles,
- Article 26 relating to the authorisation for types of vehicles.

Enhanced coordination of NoBos

The spirit of the changes

- 7.39 In terms of coordination of NoBos, the Agency will need to set clear guidelines on how the NoBos are to interpret the TSIs in relation to Interoperability Constituents. This will create a common understanding of what needs to be looked at and how to remove the problem of documents received from specific NoBos being treated differently. This will also be treated by the Agency's role in the previous point, as it would be directing the NSAs to look at the information that they receive from the NoBos in a certain, common manner.
- 7.40 The Agency will also need to audit the NoBos to ensure that they are meeting key requirements for their activities. This activity could be delegated to the NSAs as NoBos are essentially national operators.
- 7.41 The second key element of this measure is actually upstream of the first one and requires that the Agency set out guidelines on the accreditation of NoBos. This will need to go over and above the provisions of Annex VIII of Directive 2008/57/EC. While the definition of this criteria is up to the Agency, we would suggest that the following (non-exhaustive) could be taken into consideration:
- Quality certification; and
 - Minimum number of staff working on rail issues with a minimum number of years of relevant experience.
- 7.42 The impacts of these changes are likely to include an increase in the confidence that NSA experts will have in reviewing the documents published by any NoBo. They will also remove the pressure on applicants to use one specific NoBo because it is the "preferred" NoBo for a particular Member State. This should increase competition between the NoBos and bring down the cost of NoBo activities, as well as decreasing the overall authorisation timescales.

The letter of the changes

- 7.43 For these to take effect the following aspects of EU legislation would need to be changed :
- Regulation 881/2004 (as amended by Regulation 1335/2008):
 - Article 1 relating to the objectives of the Agency,
 - Article 2 relating to the types of acts of the Agency,
 - Article 6 relating to technical support, and
 - Article 13 relating to Notified Bodies.
 - Directive 2008/57/EC (as amended by Directive 2009/131/EC and Directive 2011/18/EU):
 - Article 28 relating to Notified Bodies, and
 - Annex VIII relating to the minimum criteria which must be taken into account by the Member States when notifying NoBos.

Migration to a single safety certificate*The spirit of the changes*

- 7.44 Details of what this entails in relation to taking forward the activities that the Agency has already started in this area have been discussed in Chapter 5. We believe that the Agency is already on the right track in terms of defining what the single safety certificate should be and how to apply it and so have not gone into further detail in this area other than to note that this will require a change of law as indicated below.
- 7.45 The impact of this change will be a better defined process for safety certification which will increase certainty and reduce timescales as set out in Chapter 6.

The letter of the changes

- 7.46 For these to take effect the following aspects of EU legislation would need to be changed:
- Regulation 881/2004 (as amended by Regulation 1335/2008): Article 16a.
 - Directive 2004/49/EC (as amended by Directive 2008/57/EC, Directive 2008/110/EC and Directive 2009/149/EC):
 - Article 10 relating to safety certificates,
 - Article 12 relating to the application requirements relating to safety certification and safety authorisation, and
 - Article 15 relating to the harmonisation of safety certificates.

Single vehicle authorisation*The spirit of the changes*

- 7.47 Following on from the single safety certificate is the single vehicle authorisation. This is linked both to the safety certificate. Creating centralised guidelines and processes for authorisations is the first step towards single authorisations. Removing the barriers that differentiate individual Member States leads to the creation of a single authorisation as the differences between Member States disappear.
- 7.48 The single authorisation process should, however, following the same process as has been followed for the single safety certificate to ensure that there is appropriate buy-in from all the stakeholders and to ensure that all national specific elements are taken into consideration where they have a clear impact on safety on the railways.
- 7.49 We note that the Agency has taken some important initial steps in this area by developing a matrix of components that need to be authorised on a vehicle and the process for this authorisation in each Member State. The next step is to identify where there is overlap between Member States in order to eliminate unnecessary double checking. The process then needs to progress to the single authorisation process which would be common across Member States. The structure of the Agency and its role with respect to NSAs would facilitate this further.

The letter of the changes

7.50 For these to take effect the following aspects of EU legislation would need to be changed:

- Regulation 881/2004 (as amended by Regulation 1335/2008):
 - Article 1 relating to the objectives of the Agency,
 - Article 2 relating to the Types of acts of the Agency,
 - Article 5 relating to the consultation of rail freight customers and passengers,
 - Article 6 relating to technical support,
 - Article 7 relating to safety certificates,
 - Article 9 relating to the monitoring of safety performance,
 - Article 12 relating to the technical support provided by the Agency,
 - Article 14 relating to the monitoring of interoperability, and
 - One or more articles should be added in relation to the independent ombudsman, the timescales for the issuing of safety certificates and authorisations and the structure and contents of the guidelines for NSAs.
- Directive 2004/49/EC (as amended by Directive 2008/57/EC, Directive 2008/110/EC and Directive 2009/149/EC):
 - Article 16 relating to the tasks of the NSAs.
- Directive 2008/57/EC (as amended by Directive 2009/131/EC and Directive 2011/18/EU):
 - Article 8(3, a) relating to the extension of the scope of TSIs regarding authorisations for the placing in service,
 - Article 17 relating to the conformity with TSIs and national rules,
 - Article 21 and 22 relating to the authorisation for placing in service of vehicles,
 - Article 23 relating to additional authorisations for placing in service of TSI conform vehicles, and
 - Article 26 relating to the authorisation for types of vehicles.

Strengthened action by the Commission outside infringement proceedings (measure 3.1)

The spirit of the changes

7.51 The strengthened action envisages that the Commission would audit the activities of the national railway authorities (NSAs and NoBos) in order to ensure that they are implementing the legislation appropriately. This is an important task to ensure that the legislation is being implemented in an appropriate manner. However, the impact of this measure would be greater oversight by the Commission in those activities that remain the sole domain of the NSAs - such as the on-going monitoring of safety. The other factors are, in essence, controlled already by the Agency as discussed above. This would involve the Commission visiting, at most, 2 NSAs per annum to review their activities with the publication of a report on their practices, also identifying the resources at their disposal. As such the impact of this is likely to be minimal and we do not propose any changes to the legislation in

relation to this measure. However, it should be noted that this is closely related to the measure of the Agency monitoring implementation, as discussed below, and which will require some legislative changes.

Amendment of the directives to enable the adoption of implementing measures (measure 3.3)

The spirit of the changes

7.52 This requires the Commission to set implementing measures (decisions or regulations) on the manner in which national institutions are to be arranged and then to enforce these requirements in relation to minimum resource requirements and common processes for the NSAs and the Notified Bodies. The Commission will then enforce this by requiring compliance within certain timescales. If this was not achieved, it would then need to proceed to infringement proceedings.

7.53 The amendment would be most relevant in the short term to ensure that national authorities have the appropriate staff number to carry out their activities. In particular, it is important that the NSAs have sufficient technical experts to carry out the national specific assessments. This can be assured with the introduction of implementing measures. It would not be effective to have ERA employees within Member State NSAs to take the decisions on safety certificates and authorisations if they do not have the national expert support to be able to address technical matters..

The letter of the changes

7.54 As a result, for this measure there would not be any changes in the Interoperability and Safety Directives, but it may be appropriate to insert an Article on this issue in the remaining 4th Package legislation as it relates to wider regulatory issues and may require the modification of Directive 2001/14/EC. We note that if Options 2 or 3 had been chosen, this measure would have had more importance and as such we would have required a change the Safety Directive.

Enhanced monitoring and control of the safety and interoperability legislation (measures 4.1.1, 4.3 & 4.6)

The spirit of the changes

7.55 This measure requires the Agency to have a greater role in monitoring the manner in which the legislation is being implemented. The Agency already monitors the implementation of the legislation on an informal basis. This is, however, a shadow role which will need to be formalised within the Agency's Regulation.

7.56 This role would require the Agency to provide regularly reports (we suggest six monthly reports) to the Commission on the state of implementation (or application in the case of Regulations) in each Member State. This should give the Commission a clear understanding of which Member States were not implementing in an appropriate manner and where action needed to be taken in relation to infringement proceedings. This will also have the effect of publicising any Member States that are not complying fully and may serve to incentivise those Member States to implement the necessary legislative changes.

- 7.57 The next step would be for the Agency to assist in the implementation by further facilitating it through training and the preparation of explanatory guidelines following on from the activities carried out in DV29 and in the upcoming DV29bis (this is the key element that is embodied in measure 4.3 on the Agency having an enhanced role in providing assistance to Member States in implementation - this also closely relates to Recommendation 10 of the Evaluation of Regulation 881/2004).
- 7.58 Other than publishing guidelines, the Agency should also provide specific workshops on how the Directives are to be implemented (or Regulations to be applied) to different stakeholder groups to ensure that each group is aware its part in the implementation process. These workshops need to be carried out once the new legislation has been defined and should be focused on identifying and sharing examples of best practice. Furthermore, the Agency should extend these workshops to EU Candidate Countries who are in the process of making their legislation compatible with EU legislation.
- 7.59 The Agency should carry out this activity by initially seeking to understand where the problems are in implementing the legislation, in a similar way to the vehicle acceptance task force. Once the problems have been identified (some of which have already been identified within Chapter 3 of this study) the Agency needs to prepare detailed guidelines to show how these problems should be addressed. This will give the sector a better understanding of what is required in the implementation process. The Agency may want to then consult the industry on the appropriateness of guidelines.
- 7.60 A fundamental element of this role of the Agency is in providing assistance in relation to telematics applications. As a first step, the Agency needs to ensure that it has the appropriate know-how internally to be able to explain the requirements for telematics applications across Member States. Secondly, the Agency needs to follow a similar process as to that for providing assistance with the implementation of Directives and Regulations. This could include setting up stakeholder workshops to address the application of TSIs. Relevant stakeholders to attend would include the manufacturers and operators who need to be able to understand how the TSIs are to work in practice.
- 7.61 Closely related to this is measure 4.6 in relation to the Commission guidelines on the interpretation of specific laws and decisions. Measures 4.3 and 4.6 would need to be coordinated to ensure that the texts prepared by the Agency and those prepared by the Commission are consistent and compatible. To ensure this coordination, we recommend that the Commission and the Agency develop a steering committee with the aim of producing these guidelines for the sector.
- 7.62 Furthermore, the Agency would also have a significant influence on decisions on infringement proceedings by providing detailed analysis that would feed into any infringement initiated by the Commission.
- 7.63 We note that given the greater role of the Agency with respect to the NSAs, the changing of the Directives into Regulations and the reduction in national rules already foreseen in the baseline, the impact of this measure is likely to be much lower than in other the Options considered.

The letter of the changes

- 7.64 The Agency Regulation (Regulation 881/2004 and subsequent amendments) should change in article 1 (regarding the objectives of ERA), article 2 (relating to the types of acts of ERA), article 9 (relating to national rules), article 12 (relating to the technical support provided by ERA), and article 14 (relating to the monitoring of interoperability by ERA).

Migrating from national technical and safety rules to a system of EU rules (measure 4.1.2)*The spirit of the changes*

- 7.65 The Agency is already assisting in the migration from national rules to EU rules. This measure would require the Agency to assist more proactively in this process by helping national authorities to identify which rules exist on their respective networks and to catalogue them in such a way as to make sure that they can be analysed by the Agency. This would be achieved, partly, through the production by the Agency of a document detailing all relevant parameters for which national rules should be identified and a clear definition of in-scope and out of scope rules.
- 7.66 Following the cataloguing of all national rules the Agency has two primary rules:
- The identification of which of the national rules can be removed. The Agency will need to do this in consultation with the national authorities, but the process should be that the Agency identifies which rules are to be removed and why they should be removed.
 - The Agency requires national authorities to remove the rules.
- 7.67 At this point, the national authorities can appeal the decision to the independent ombudsman who will have a limited time to decide on any appeal. Finally, and subject to any appeal, the national authority would be tasked with removing the national rule within national legislation.
- 7.68 The process from the initial notification by the Agency of the national rules that need to be removed to the final removal of the rules should not take more than 4 months.
- 7.69 Furthermore, as mentioned in Chapter 5, the Agency will also have the ability to limit new national rules by requiring that all new national rules pass to the Agency for approval before they are activated. At this point the Agency may decide that these rules are not appropriate and cause a barrier to the market and block the application of the national rule.

The letter of the changes

- 7.70 The insertion of this process will require the following aspects of EU legislation to be changed:
- Regulation 881/2004 (as amended by Regulation 1335/2008 and related corrigendum):
 - Article 9a and 9b relating to national rules,
 - Article 10 relating to technical opinions requested to ERA, and
 - Additional article on the independent ombudsman as mentioned above.

- Directive 2004/49/EC (as amended by Directive 2008/57/EC, Directive 2008/110/EC and Directive 2009/149/EC):
 - Article 8 relating to national safety rules.
- Directive 2008/57/EC (as amended by Directive 2009/131/EC and Directive 2011/18/EU):
 - Article 8(3, a) relating to the extension of the scope of TSIs regarding authorisations for the placing in service,
 - Article 17 relating to the conformity with TSIs and national rules
 - Article 27 relating to the classification of national rules.

Enhanced role for the Agency in the dissemination of railway related information (measure 4.2)

The spirit of the changes

- 7.71 As stated in the earlier study on the Evaluation of Regulation 881/2004, this measure is fundamental to ensure that the sector has an appropriate understanding of the processes of the Agency and the workings of the legislation. In that report it was recommended that the Agency increase its activities in this area such as through road shows and participation and presentation at key industry events. The impact of this will be a greater understanding at a national level of the requirements within EU legislation thus facilitating the application of the legislation.

The letter of the changes

- 7.72 In the Evaluation report for the previous study it was recommended that: “...Articles 18 and 19 should be supplemented with specific provisions in the Regulation that require the Agency to carry out dissemination and training on its activities, particularly regarding interpretation of its Recommendations and Technical Opinions.” We believe that this remains an appropriate way forward.

Enhanced role for the Agency in identifying potential spare parts to be standardised and coordination of industry activities in this area (measure 4.7)

The spirit of the changes

- 7.73 The activities of the Agency in this area relate primarily to the establishment of a Working Group, to be led by the Agency and involving relevant stakeholders, with the aim of identifying which spare parts could effectively be standardised and at what cost/benefit for the sector. At the end of this process the Agency would seek to present a recommendation to the Commission to be converted into a TSI in relation to spare parts.

The letter of the changes

- 7.74 We don't believe that this specific measure requires any changes to the legislation, but that it should be incorporated as a Mandate for the Agency within its next Work Programme, thus requiring the setting up of a Working Party on this issue.

Summary of recommendations

- 7.75 The selection of Option 4 following the detailed analysis and assessment as set out in the previous chapters will lead to a number of modifications to the current legislative and regulatory environment. These should facilitate the creation of a Single European Railway Area and assist in dismantling the technical and administrative barriers in the sector.
- 7.76 Option 4 modifies the role of the Agency substantially, particularly in respect of its relationship with the NSAs. This change gives the Agency a more influential role across the industry in terms of monitoring and facilitating access to the rail sector and its associated markets. The Agency will need to have decision making powers for it to be able to approve safety certificates and authorisation requests. It will also need to have an appropriate resource and skills base to be able to effectively manage its modified relationships with the NSAs.
- 7.77 Our assessment has allowed for a period of 3 years for implementation of the Regulations required by Option 4, although this also assumes that there will be some additional ramp-up in the period up to 2020. The Agency will need to develop a strategy to manage the transition and to facilitate implementation of the proposed regulatory and structural changes. A bold and ambitious implementation schedule should be defined from the outset, in order to ensure that the benefits are achieved quickly and the technical and administrative barriers that are hindering the development of the Single European Railway Area are removed as soon as possible.

CONTROL SHEET

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