



Department  
for Transport

# Post Implementation Review of the Railways and Other Guided Transport Systems (Safety) Regulations 2006

January 2017



# Department for Transport

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Department for Transport  
Great Minster House  
33 Horseferry Road  
London SW1P 4DR  
Telephone 0300 330 3000  
Website [www.gov.uk/dft](http://www.gov.uk/dft)  
General enquiries: <https://forms.dft.gov.uk>

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## **Post Implementation Review of the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (as amended)**

On 23 June, the European Union (“EU”) referendum took place and the people of the United Kingdom voted to leave the EU. Until exit negotiations are concluded, the UK remains a full member of the European Union and all the rights and obligations of EU membership remain in force. During this period the Government will continue to negotiate, implement and apply EU legislation. It will be for the Government, under the new Prime Minister, to begin negotiations to exit the EU.

### **Introduction**

- 1 This document provides an overview of the post implementation review (PIR) of the Railways and Other Guided Transport Systems (Safety) Regulations 2006 [S.I. 2006/599] (as amended) (“ROGS”).
- 2 ROGS transposed in Great Britain the principle part of Directive 2004/49/EC (“the Railway Safety Directive”) <sup>1</sup>which established a common framework for the regulation and development of railway safety across all European Union Member States. ROGS also contains provisions covering other railway safety requirements.
- 3 Regulation 34A of ROGS prescribes that, by no later than 26 August 2016 (and every five years after), the Secretary of State for Transport (“the Secretary of State”) must:
  - carry out a review of ROGS;
  - set out the conclusions of the review in a report; and
  - publish the report.
- 4 In undertaking any review the Secretary of State must also, so far as is reasonable, have regard to how the Railway Safety Directive has been implemented in other EU Member States.
- 5 The ultimate objective of ROGS is to “*Maintain national standards of rail safety in line with EU requirements and strive for continuous improvement*”. It contributes to establishing in the UK the common European regulatory framework for railway safety to meet the Railway Safety Directive objective of opening the market for rail transport.
- 6 This Report, and associated PIR (found at Appendix 1), set out the Government’s views on the effectiveness of the regulatory regime. The aim and objective of the PIR is to establish whether, and to what extent, ROGS have achieved their original objectives and to assess their effectiveness after they have been implemented and operational for a period of time. It addresses:
  - the extent ROGS are achieving their intended effects;
  - whether there have been any unintended effects; and
  - how well they are working and the reasons why.

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<sup>1</sup> Other provisions were implemented by The Railways (Access to Training Services) Regulations 2006 [S.I. 2006/598]; the Railways (Safety Management) Regulations (Northern Ireland) 2006 [S.I. 2006/237]; and the Railways (Accident Investigation and Reporting) Regulations 2005 [S.I. 2005/1992].

## Background to ROGS

- 7 The requirement to implement the provisions of the Railway Safety Directive provided an opportunity to consolidate the pre-existing national regulatory framework in Great Britain and make significant deregulatory changes in line with Government policy. In broad terms, the Government:
- replaced a detailed safety case regime from the Railways (Safety Case) Regulations 2000 [S.I. 2000/2688] with the Railway Safety Directive's similar requirement for a safety management system ("SMS") which provided the basis for applications for safety certificates (for train operators) and safety authorisations for infrastructure managers on the mainline railway;
  - applied similar principles for an SMS to non-mainline railways and transport systems adapted to reflect the nature and extent of those operations (but not requiring the full certification or authorisation process provided by the Railway Safety Directive for the purposes of European harmonisation, or any certification requirements for some operators such as heritage and tramways);
  - dispensed with the statutory technical approvals regime under the Railways and Other Transport Systems (Approval of Works, Plant and Equipment) Regulations 1994 [S.I. 1994/157] to create a proportionate system of safety verification to control risks arising from the introduction of new/altered vehicles and infrastructure; and
  - replaced the Railways (Safety Critical Work) Regulations 1994 [S.I. 1994/299] and introduced more goal-setting requirements for the management of safety-critical work (thereby implementing some recommendations from Lord Cullen's inquiry into the Ladbroke Grove rail accident<sup>2</sup>).
- 8 ROGS therefore includes provisions derived from both European and national requirements.
- 9 Since coming into force in 2006, ROGS have been substantially amended twice by:
- The Railways and Other Guided Transport Systems (Safety) (Amendment) Regulations 2011 [S.I. 2011/1860]; and
  - The Railways and Other Guided Transport Systems (Miscellaneous Amendments) Regulations 2013 [S.I. 2013/950].
- 10 These amendments were required to implement revisions to the Railway Safety Directive made by Directive 2008/110/EC. At the same time the Government took the opportunity to make some other changes to ROGS to reflect lessons learned from operational experience, enhance regulatory clarity and reduce red tape. In summary, these amendments:
- established a regulatory regime for entities in charge of maintenance ("ECM") and gave effect to European Commission Regulation (EU) 445/2011 on a system of certification for freight wagon ECMs;
  - clarified some the definitions used;
  - removed the requirement for non-mainline operators to send an annual safety reports to Office of Rail and Road ("ORR");
  - removed the requirement for safety verification for mainline operators; and

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<sup>2</sup> See <http://webarchive.nationalarchives.gov.uk/20131001175041/http://www.rail-reg.gov.uk/server/show/nav.1204>.

- made the 28-day consultation with an affected party run concurrently with the four-month application assessment period for safety certificates and safety authorisations.

### **Enforcement and compliance regime for ROGS**

- 11 ORR is the independent safety and economic regulator for Great Britain's railways and monitor of Highways England. It is responsible for enforcing ROGS under the Health and Safety at Work etc. Act 1974 and is a National Safety Authority ("NSA") for the purposes of the Railway Safety Directive with responsibility for issuing safety certificates and safety authorisations.
- 12 In Great Britain, ORR implements compliance and enforcement strategies in order to:
  - ensure duty holders comply with relevant health and safety legislation, or if they fail to comply, ensure they are held to account;
  - ensure duty holders eliminate or properly control risks;
  - take action to deal immediately with serious risks;
  - promote and achieve sustained compliance with the law; and
  - deter non-compliance and prevent work-related ill health and injury to workers, passengers and other members of the public who may be affected by the operation of Britain's railways.
- 13 ORR's compliance and enforcement strategies range from information, advice, persuasion, co-operation, inspection, audit, permissioning, verification and compulsion through to deterrence activities of formal enforcement. Its approach is generally to assist rail industry businesses to comply with their occupational health and safety obligations through verbal and written advice but it will also adopt stricter methods where the duty holder fails to respond to its advice or where the seriousness of the non-compliance justifies it. However, in most circumstances, ORR is able to secure compliance without recourse to formal enforcement tools.
- 14 Using its health and safety powers and enforcement responsibilities from a number of sources, including the Health and Safety at Work etc. Act 1974<sup>3</sup>, ORR has a range of stronger sanctions available to it to secure compliance or impose sanctions for the most serious breaches of the law. These include:
  - issuing an improvement notice to require compliance by a certain date;
  - issuing a prohibition notice that prohibits a practice or use of plant, equipment or a substance until it can be undertaken or used safely;
  - revoking a safety certificate or safety authorisation issued under ROGS (a transport operator cannot operate without these);
  - issuing a simple caution (out of court disposal) in England and Wales;
  - prosecuting in the courts in England and Wales; and
  - reporting to the Crown Office and Procurator Fiscal Service in Scotland.

<sup>3</sup> [http://orr.gov.uk/data/assets/pdf\\_file/0016/5650/health-and-safety-compliance-and-enforcement-policy-statement-2016.pdf](http://orr.gov.uk/data/assets/pdf_file/0016/5650/health-and-safety-compliance-and-enforcement-policy-statement-2016.pdf)

## Scope of the Post Implementation Review

- 15 The PIR considers ROGS as they were originally made in 2006 together with the significant subsequent amendments made in 2011 and 2013.
- 16 Given that the impact assessment for the original 2006 regulations<sup>4</sup> predicted of total costs to business of between £43.4 and £81.0 million (£5.0 to £9.4 million per year), a high level of evidence was considered to be proportionate for this PIR.
- 17 ORR had already commissioned an in-depth, independent, four-year monitoring and evaluation of ROGS, which resulted in a final report in 2010<sup>5</sup> (“the 2010 Report”). This detailed study concluded that the majority of objectives of ROGS had either been met or were on their way to being met. Therefore, to avoid duplication of effort, many of the requirements of this PIR have been delivered through the findings of the 2010 Report. These have been supplemented by a light touch approach that assesses whether the conclusions of the 2010 Report are still accurate and also evaluates the impacts of subsequent amendments in 2011 and 2013.

## Research and analysis

- 18 To supplement the 2010 evaluation, ORR collected further evidence for the PIR by:
- consulting stakeholders and asking them to complete a survey (“the 2015 Survey”);
  - researching ORR data sources (its Corporate Information Database and an internal staff survey);
  - contacting other NSAs by e-mail; and
  - researching published data.
- 19 As well as requesting responses to queries relating to specific provisions of ROGS, responses to the following questions were also sought:
- Are ROGS working well?
  - What would happen without ROGS?
  - Are there any unintended effects?
  - Are there any negative impacts?
  - Should any changes be made to ROGS?
  - Have businesses with <50 employees been disproportionately affected?

## Are ROGS working well?

- 20 The PIR found that ROGS are working well. The 2015 Survey indicated that 71% of respondents agreed with the statement “*I think ROGS are working well*”. Those that neither agreed nor disagreed (22%) still had positive comments to make.

## What would happen without ROGS?

- 21 As ROGS are working well, only 2% of respondents to the 2015 Survey indicated that

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<sup>4</sup> [http://www.legislation.gov.uk/ukxi/2006/599/pdfs/ukxiem\\_20060599\\_en.pdf](http://www.legislation.gov.uk/ukxi/2006/599/pdfs/ukxiem_20060599_en.pdf)

<sup>5</sup> [http://orr.gov.uk/\\_data/assets/pdf\\_file/0016/2554/rogs-evaluation-report-june10.pdf](http://orr.gov.uk/_data/assets/pdf_file/0016/2554/rogs-evaluation-report-june10.pdf)

ROGS should be removed and not be replaced. There was no suggestion as to what would happen were ROGS to be revoked.

### **Are there any unintended effects?**

- 22 The PIR found that, overall, ROGS has not generated any unintended effects. Most respondents (53%) indicated that there had been no unintended effects for their businesses. A small minority (about 10%) thought that there had been unintended effects and arose mainly from businesses which operated services below 40km/h and light railways. Some said that their costs had increased in order to comply with ROGS and more paperwork has been generated. However, it should be noted that the impact assessment accompanying the 2006 Regulations envisaged that there would be a minor increase in costs for many of these operators so, while this point is important, this impact had been anticipated and is therefore not considered to be 'unintended'. Around 36% of respondents were not sure whether there had been any unintended effects.

### **Are there any negative impacts?**

- 23 The PIR found that, overall, there appear to be no significant negative impacts following the introduction of ROGS. The 2015 Survey indicated that 70% of respondents thought that ROGS have had a positive impact. Comments indicated that they provide a framework for duty holders to manage their own risks and work with each other on common areas to continuously improve through shared knowledge and experience and that they have raised standards in safety management and record keeping among duty holders. Around 9% were not sure if there had been any negative impacts and 21% thought that ROGS have had a neutral impact.

### **Should any changes be made to ROGS?**

- 24 The PIR proposed some changes to ROGS and these are summarised in the conclusions below. The 2015 Survey found that a majority of respondents (59%) thought that ROGS should remain without amendment but 21% believed that they should remain with some amendments. Around 4% thought that ROGS should be removed and not be replaced, replaced with other legislation; or redesigned. Around 9% made other suggestions and around 7% did not provide a response.

### **Have businesses with fewer than 50 employees been disproportionately affected?**

- 25 The PIR found that, overall, it does not appear that businesses with fewer than 50 employees have been disproportionately affected by the introduction of ROGS.
- 26 The 2015 Survey indicates that 46% of respondents thought that businesses with fewer than 50 employees had not been disproportionately affected. Almost as many, 39%, were either not sure or did not provide a response to this question. However, 14% of respondents, including 25% of the 16 respondents from businesses with 50 or fewer employees, thought that there had been a disproportionate impact on smaller businesses.
- 27 Comments from the four respondents from businesses with 50 or fewer employees who expressed concerns were that:
- there had been a disproportionate effect on costs of re-training staff to meet the new regulations;



- the amount of paperwork was disproportionate to the benefits; and
  - it is hard to comply when management teams are also ‘hands on’.
- 28 Half of the businesses with 50 or fewer employees indicated that there had been no disproportionate impact on them and 25% were not sure.
- 29 The rail operators in Great Britain comprise:
- 55 mainline railway safety certificate or authorisation holders that either manage or maintain mainline railway infrastructure or operating trains above 40 kilometres per hour on the mainline railway<sup>6</sup> (these include train and freight operating companies, Network Rail, High Speed 1 Ltd, other infrastructure maintainers and ECMs);
  - 18 non-mainline safety certificate or authorisation holders rail operators that either manage or maintain non-mainline infrastructure or operate vehicles above 40 kilometres per hour on non-mainline infrastructure<sup>7</sup> (these include light rail networks, metro systems and people movers);
  - 6 freight wagon ECM certificate holders<sup>8</sup> that do not have a mainline safety certificate or authorisation; and
  - 9 modern tramways and over 250 heritage, museum or tourist railways and tramways<sup>9</sup> operating below 40 kilometres per hour.
- 30 Figures for how many employees these businesses have were not available. However, of the 56 respondents to the 2015 Survey, 16 (29%) were from businesses with 50 or fewer employees. These represent 5% (16 out of 338) of duty holders under ROGS and are broken down as follows:

Type of operator	Number	Percentage
Railway (or other system) operating under 40 km/h	4	25.0%
Other	4	25.0%
Entity in Charge of Maintenance	2	12.5%
Light railway	4	25.0%
Freight operating company	2	12.5%

- 31 The Secretary of State supports ORR’s view that, while some rail businesses may only have a small number of employees, every operator has the same duty to protect their workforce, passengers and the public. A minimum standard of safety management is necessary for businesses to carry out this duty. The regulatory demand on businesses should be proportionate to the level of risk that those businesses create through their services. ROGS recognises this by requiring all railway and tramway duty holders to have a written SMS adapted to the character

<sup>6</sup> <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/regulation-and-certification/rogs/safety-certificates-and-authorisation/mainline-certificates>

<sup>7</sup> <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/regulation-and-certification/rogs/safety-certificates-and-authorisation/non-mainline-certificates>

<sup>8</sup> <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/regulation-and-certification/rogs/entities-in-charge-of-maintenance/ecm-certificates-issued>

<sup>9</sup> [http://orr.gov.uk/data/assets/pdf\\_file/0017/2555/rogs-exclusion-approved-list.pdf](http://orr.gov.uk/data/assets/pdf_file/0017/2555/rogs-exclusion-approved-list.pdf)

and extent of their operations.

- 32 Reflecting the need for regulation to be proportionate, ROGS do not require generally lower-risk sectors (tramways and transport systems that do not run at speeds above 40 kilometres per hour) to obtain safety certificates or safety authorisations from ORR. ROGS have also been implemented in a way that makes use of any exemptions available under the Railway Safety Directive (such as metro and light rail systems). ORR believes the responses to the 2015 Survey illustrate that the impact of ROGS on businesses with fewer than 50 employees is not disproportionate to larger organisations.

### **Implementation of the Railway Safety Directive in other EU Member States**

- 33 The PIR considered how the Railway Safety Directive was implemented in Germany, the Republic of Ireland and the Netherlands and compared this to the experience in Great Britain.
- 34 Although there does not appear to be direct copy-out of the text of the Railway Safety Directive in any of the four countries, there appeared to be a greater proportion in Great Britain than elsewhere. Germany, Ireland and the Netherlands instead tend to make more references to the articles in the Railway Safety Directive rather than copy out the text directly.
- 35 Overall there does not appear to be any gold-plating of the Railway Safety Directive's requirements in any of the four countries. However, the following approaches, which are different to those adopted in Great Britain, were observed:
- a. Germany's national implementing measures have an additional duty on the ECM to keep records which is not a requirement of the Directive.
  - b. Ireland's national implementing measures mandate a maximum three-month assessment period for the NSA once an application for a safety certificate has been received. This is less than the four months required by ROGS which is the maximum allowed by the Directive, although this reflects the presence of a formal pre-application phase in Ireland which reduces the burden on the NSA once the application has been submitted resulting in quicker processing of applications. ORR does not believe that a four-month assessment period puts UK businesses at a competitive disadvantage when compared to similar operators in mainland Europe.

The NSA in Ireland has issued three safety certificates to railway undertakings compared to 50 that ORR has issued. There is currently no franchise system in place in Ireland and there is just one state-owned railway undertaking (excluding the cross-border service from Northern Ireland) that operates regular passenger services. This compares to Great Britain where private sector companies compete to operate passenger services through franchises awarded by the Department for Transport. There are 16 franchise railway undertakings and eight other types of passenger railway undertakings (including open access operators) in Great Britain to which ORR has issued safety certificates.

If the UK adopted Ireland's approach to assessment, the franchise award process would require ORR to carry out pre-application engagement (i.e. review draft application documentation) with all potential bidders before the award of a franchise to the successful bidder which would mean its work with unsuccessful bidders would be nugatory. . This requirement would place additional burdens on all but the successful bidder and, in the longer term, add

to the overall costs of those businesses. ORR believes that a more effective use of resources, given the nature of the rail market in Great Britain, is to review only the winning bidder's application documentation before formal submission. A shorter assessment period would not reduce the burden on applicants any further as the franchise start date is unlikely to change.

- c. The Netherlands' national implementing measures contain a requirement for a 'Test' or 'Pilot' safety certificate, which is valid for a maximum of 13 weeks. This is granted to railway undertakings that want to gain experience or those that want to test trains. The Railway Safety Directive permits safety certificates to be valid for up to five years. ORR may issue certificates for less than this period on a case by case basis. A requirement similar to the Netherlands may create unnecessary costs for some operators, particularly because the testing of trains does not normally fall within the scope of safety certification for the mainline railway under ROGS.

- 36 There have been no issues with operation and effectiveness of the national implementing measures for the Railway Safety Directive in any of the four countries. But, in Germany, there have been reports that it has been difficult for the sector to adapt to the new requirements as well as delays in implementing the requirements due to discussions with the German federal states.
- 37 On a scale of high/medium/low, the level of compliance has been high in Great Britain, Ireland and the Netherlands. In Germany compliance has been medium. There is still work to do to comply with the requirements, especially in relation to SMS and common safety methods but the sector is working to increase its level of compliance.
- 38 Overall, the PIR found that the ROGS has not created any issues in Great Britain in relation to:
- a competitive disadvantage to businesses compared to their EU counterparts; or
  - gold-plating of the Railway Safety Directive.
- 39 The PIR did not identify any additional measures that could be taken to streamline the implementation of the Railway Safety Directive to reduce costs to businesses.

### **Conclusions and next steps for the Regulations**

- 40 Until exit negotiations are concluded, the UK remains a full member of the EU and all the rights and obligations of EU membership remain in force. During this period the Government will continue to negotiate, implement and apply EU legislation. The outcome of these negotiations will then determine what arrangements apply in relation to EU legislation in future, once the UK has left.
- 41 The overall conclusion from the PIR is that ROGS are working well and the objectives have largely been met with no unintended effects. Overall, a disproportionate effect on businesses with fewer than 50 employees does not appear to be a concern for ROGS.
- 42 The Secretary of State accepts the recommendations arising from the PIR that ROGS should remain in place with some minor regulatory changes to improve clarity. Subject to further consultation, the following regulatory changes will be incorporated into ROGS at the next available opportunity:
- clarify that the term "mainline railway" represents the management and operation of the mainline railway;

- replace the term “placed in service” (and cognate expressions) with “put in use” to align with the Railways (Interoperability) Regulations 2011 [S.I. 2011/3066];
  - modernise requirements in regulation 21 of ROGS relating to making documents available to the public so that they can be made available electronically; and
  - make the Common Safety Method for Risk Evaluation and Assessment (Commission Regulation (EU) 4012/2013) voluntary for non-mainline operators as an alternative to carrying out safety verification (this follows the removal of safety verification for mainline operators in 2013 because this Common Safety Method applies in a similar way).
- 43 ORR will propose a ‘ROGS toolkit’ which will assist duty holders to pin-point which elements of the Regulations apply to them depending on the type of services they offer and where they operate. In addition, ORR will also revise its guidance on ROGS<sup>10</sup> to further increase clarity, for example, by clarifying the definition of “infrastructure manager” (particularly when there is more than one safety authorisation holder at a particular station).
- 44 A recast of the Railway Safety Directive has been agreed as part of the Fourth Railway Package with transposition being required during 2019. Negotiations will determine what arrangements might apply in relation to EU legislation as the UK leaves the EU. These processes will provide an opportunity to consider how best, and when, to take forward the recommendations of this review.
- 45 The Department for Transport will consult on any regulatory proposals which will be supported by an impact assessment although it is not anticipated that the changes outlined above will result in any material increase in costs for business.
- 46 The Department for Transport envisages that there may be some cost savings for business from improving the clarity of ORR’s guidance (and the introduction of the ROGS toolkit). This will assist duty holders further in identifying and complying only with provisions which are relevant to their operations. However, it is difficult to quantify any cost savings which might arise as compliance with other, non-mandatory, requirements in particular circumstances is not a function of ROGS but rather reflects the level of understanding of the requirements amongst rail stakeholders.

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<sup>10</sup> See [http://orr.gov.uk/data/assets/pdf\\_file/0020/2567/rogs-guidance.pdf](http://orr.gov.uk/data/assets/pdf_file/0020/2567/rogs-guidance.pdf)

## Appendix 1 – Post Implementation Review

<b>Title:</b> Post implementation review of the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (as amended) <b>IA/PIR No:</b> ORR1601 <b>Lead department or agency:</b> Office of Rail and Road (ORR) <b>Other departments or agencies:</b> Department for Transport <b>Contact for enquiries:</b> <a href="mailto:stefano.valentino@orr.gsi.gov.uk">stefano.valentino@orr.gsi.gov.uk</a> 020 7282 2003	<b>Post Implementation Review</b>
	<b>Source of intervention:</b> EU
	<b>Type of regulation:</b> Secondary legislation
	<b>Type of review:</b> Statutory - other
	<b>Date of implementation:</b> 6 April 2006
<b>Date review due (if applicable):</b> 26 August 2016	
<b>Summary</b>	<b>RPC:</b> Fit for purpose

### 1a. What were the policy objectives and the intended effects? (If policy objectives have changed, please explain how).

The ultimate objective of the Railways and Other Guided Transport Systems (Safety) Regulations 2006 [S.I. 2006/599] (as amended) (ROGS) is to “*Maintain national standards of rail safety in line with EU requirements and strive for continuous improvement*”. It contributes to establishing in the UK the common European regulatory framework for railway safety to meet the Railway Safety Directive (2004/49/EC) objective of opening the market for rail transport.

This ultimate objective translates into the following subsidiary objectives for ROGS (which were determined by the requirement to implement the provisions of the Railway Safety Directive (as amended) and the consolidation of the pre-existing national regulatory framework in Great Britain.

#### Original objectives in 2006<sup>11</sup>

- *Objective 1:* (a) transferring the mainline<sup>12</sup> railway industry from a system of railway safety cases to a system of safety certification and authorisation; and (b) ensuring the UK can respond to common safety targets in future;
- *Objective 2:* (a) reduce the number of railway operators that have to seek formal permission to work on the railway; (b) producing a minimum set of requirements for a SMS so that safety certification is more streamlined and better targeted, less bureaucratic and quicker for duty holders; and (c) redirecting inspection towards checking on the ground that operators are controlling their operational risks;

<sup>11</sup> [http://orr.gov.uk/\\_data/assets/pdf\\_file/0016/2554/rogs-evaluation-report-june10.pdf](http://orr.gov.uk/_data/assets/pdf_file/0016/2554/rogs-evaluation-report-june10.pdf)

<sup>12</sup> This requirement also applies to non-mainline duty holders where the operational speed limit is above 25km per hour.

- *Objective 3:* (a) transport operators and infrastructure managers working together to ensure system safety; and (b) operators identifying appropriate forms of cooperation that complement the measures they are taking to comply with their own safety duties;
- *Objective 4:* (a) removal of the existing requirement on the non-mainline railway for formal approval by ORR before introducing new or altered works, plant or equipment; and (b) replacing this requirement so that duty holders obtain safety verification from an independent competent person;
- *Objective 5:* (a) changing the definition of ‘safety critical work’ from broad job titles to the actual tasks that are safety critical to the safety of the railway; (b) safety critical tasks must be carried out by a person assessed as being competent and fit for work; (c) remove the requirement for safety critical workers to carry a formal means of identification; and (d) require a change in approach from simply controlling the number of hours for preventing fatigue to one of requiring arrangements to be implemented that control risks such as the pattern of working hours and roster design;

#### Objectives when ROGS were amended in 2011<sup>13</sup>

- *Objective 6:* establish an entity in charge of maintenance (ECM) regime applicable to the UK, which complies with the Railway Safety Directive (as amended) and is consistent with ROGS;
- *Objective 7:* clarify in Part 4 of ROGS that “work” includes voluntary workers;
- *Objective 8:* establish a method of collecting accident data which complies with the Railway Safety Directive (as amended) and is consistent with ROGS;

#### Objectives when ROGS were amended in 2013<sup>14</sup>

- *Objective 9:* establish an ECM certification regime applicable to the UK, which complies with the Railway Safety Directive (as amended) and is consistent with ROGS by giving effect to European Commission Regulation (EU) 445/2011 on a system of certification of ECMs for freight wagons;
- *Objective 10:* provide clarification that those rail systems listed in Article 2(2) of the Railway Safety Directive are properly excluded from the mainline railway;
- *Objective 11:* remove the requirement for safety verification for mainline railway transport operators;
- *Objective 12:* remove the requirement for non-mainline transport operators to send annual safety reports to ORR;
- *Objective 13:* clarify that the monitoring arrangements of the controller of safety-critical work have to be ‘suitable and sufficient’; and
- *Objective 14:* make the 28-day consultation with an ‘affected party’ run concurrently with the four-month application assessment period for safety certificates and safety authorisations.

All subsidiary objectives 1 to 14 are within the scope of this PIR. The overall intended effects of ROGS as a whole were to:

- bring together and streamline the regulatory landscape (by replacing three sets of regulations with one);
- secure greater proportionality to risk and reduce costs;

<sup>13</sup>Amended by the Railways and Other Guided Transport Systems (Safety) (Amendment) Regulations 2011 [S.I. 2011/1860] (<http://www.legislation.gov.uk/uksi/2011/1860/contents/made>)

<sup>14</sup> Amended by Railways and Other Guided Transport Systems (Miscellaneous Amendments) Regulations 2013 [S.I. 2013/950] (<http://www.legislation.gov.uk/uksi/2013/950/contents/made>)

- make safety regulation of the railway more effective, better focused, more coherent, and with less bureaucratic processes; and
- apply the same principles of regulation to the mainline railway and other transport systems (e.g. metros, tramways and heritage railways) but only in proportion to risk and the character of the transport system.

**1b. How far were these objectives and intended effects expected to have been delivered by the review date? If not fully, please explain expected timescales.**

The objectives and intended effects were expected to have been fully delivered by the review date. See impact assessments to the 2006<sup>15</sup>, 2011<sup>16</sup> and 2013<sup>17</sup> regulations.

**2. Describe the rationale for the evidence sought and the level of resources used to collect it, i.e. the assessment of proportionality.**

The Railways and Other Guided Transport Systems (Safety) (Amendment) Regulations 2011[S.I. 2011/1860] inserted the review clause into ROGS (regulation 34A). This requires that by 26 August 2016 (and every five years thereafter) the Secretary of State:

- carries out a post implementation review (PIR) of the whole of ROGS;
- sets out the conclusions of the review in a report; and
- publishes the report.

The scope of this PIR is limited to the statutory requirement and concerns ROGS as originally made in 2006 and the subsequent amendments in 2011 and 2013.

A medium to high level of evidence is considered to be proportionate for this PIR (in accordance with Figure 3 of the Guide for Conducting PIRs) given that the 2006 impact assessment predicted £43.4 to £81.0 million of total costs to business (£5.0 to £9.4 million p.a.).

In 2006 the then Office of Rail Regulation (now Office of Rail and Road) (ORR) commissioned GL Nobel Denton, to assess whether ROGS had met their original objectives and if the Regulations resulted in value for money. GL Nobel Denton produced a baseline report in 2007 and further surveys were carried out in 2008 and early 2009. A final report was published in 2010 (the 2010 report)<sup>18</sup>, which covers a final survey undertaken by questionnaire in late 2009 and the outcome of a workshop. This detailed study concluded that the majority of objectives of ROGS had either been met or were on their way to being met. Therefore, to avoid duplication of effort, the majority of the requirements of this PIR have been delivered through the existing 2010 evaluation. The findings in the 2010 report have been supplemented by a light touch approach that assesses whether the 2010 findings are still accurate and also evaluates the impacts of subsequent amendments in 2011 and 2013. This approach is consistent with Section 1.5 of the Guide for Conducting PIRs.

The level of resource for the four-year study was justifiable because of the extent of the change of approach to regulating railway safety introduced by ROGS and uncertainty about how the industry would adapt. However, ORR believes that the approach it has taken on this PIR is more appropriate and proportionate because

- the 2010 report concluded that the majority of objectives of ROGS had either been met or were on their way to being met;
- although there have been changes to ROGS since 2006 these have not been substantial; and

<sup>15</sup> [http://www.legislation.gov.uk/uksi/2006/599/pdfs/uksiem\\_20060599\\_en.pdf](http://www.legislation.gov.uk/uksi/2006/599/pdfs/uksiem_20060599_en.pdf)

<sup>16</sup> [http://www.legislation.gov.uk/ukia/2011/2007/pdfs/ukia\\_20112007\\_en.pdf](http://www.legislation.gov.uk/ukia/2011/2007/pdfs/ukia_20112007_en.pdf)

<sup>17</sup> [http://www.legislation.gov.uk/ukia/2013/1171/pdfs/ukia\\_20131171\\_en.pdf](http://www.legislation.gov.uk/ukia/2013/1171/pdfs/ukia_20131171_en.pdf)

<sup>18</sup> [http://orr.gov.uk/\\_data/assets/pdf\\_file/0016/2554/rogs-evaluation-report-june10.pdf](http://orr.gov.uk/_data/assets/pdf_file/0016/2554/rogs-evaluation-report-june10.pdf)

- the changes since 2006 have been primarily deregulatory in nature, notably:
  - removal of the reporting of annual safety reports to ORR for non-mainline operators;
  - removal of the requirement for safety verification for mainline operators; and
  - making the 28-day consultation with an affected party run concurrently with the four-month application assessment period.

The only objective which the 2010 report concluded had not been met at the time was objective 5(d), which requires a change in approach from simply controlling the number of hours for preventing fatigue to one requiring arrangements to be implemented that control risks such as the pattern of working hour and roster design.

The 2015 survey therefore focuses on finding out:

- the impact of objective 5(d);
- the impact of objectives 6 to 14 (which are related to amendments introduced after the original evaluation was completed); and
- whether these objectives have been met.

It also seeks general feedback from stakeholders on their views and experience of ROGS to supplement the work undertaken in the 2010 report.

### **3. Describe the principal data collection approaches that have been used to gathering evidence for this PIR.**

This PIR uses an impact evaluation approach, which compares what happens under ROGS with the baseline position prior to the regulatory change. It uses the evidence already collected in the 2010 report along with more recent evidence collected by:

- a stakeholder survey (the 2015 survey)<sup>19</sup>;
- researching ORR data sources (ORR's Corporate Information database and internal staff survey);
- researching published data; and
- contact with EU Member States.

The forms of monitoring data that were collected can be found in Annexes B, C and D of the evidence base.

#### Surveys in the 2010 report

In addition to a baseline Influence Network and a final Influence Network, the 2010 report considers four surveys issued across a three-year period:

- Baseline ROGS survey - issued mid to late 2007
- ROGS survey (Year 1) – issued early 2008
- ROGS survey (Year 2) – issued early 2009
- Final ROGS survey – issued end of 2009

In each case the survey was issued to a range of rail industry stakeholders via email and participants were always given at least one month to respond.

<sup>19</sup> [http://orr.gov.uk/data/assets/pdf\\_file/0018/20970/conclusions-from-rogs-pir-2015-survey.pdf](http://orr.gov.uk/data/assets/pdf_file/0018/20970/conclusions-from-rogs-pir-2015-survey.pdf)



Table 1 shows the number of surveys issued and the number of respondents broken down by type.

<b>Table 1: Number of surveys issued and the number of respondents broken down by type in the 2010 report</b>				
<b>Type of respondent</b>	<b>Baseline</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Final</b>
Non-duty holders	9	6	4	5
Train operating company (TOC)	3	13	11	8
Tramway	3	0	1	2
Metro system	2	1	2	2
Infrastructure manager	1	2	1	2
On-Track Machine operator (OTM)	2	1	1	1
Trade union	1	0	0	1
Freight operating company (FOC)	1	1	2	0
Light railway	0	1	1	0
Maintenance company	1	0	0	0
Passenger groups	0	0	1	0
Rolling stock manufacturer or company	1	2	2	0
Other	2	1	1	2
<b>Total number of responses</b>				
	26	28	27	23
<b>Number of surveys issued</b>				
	34	93	89	80

The surveys asked questions about general feedback on ROGS and specific questions relating to the implementation of the different elements of ROGS.

Further details of the methodology and findings from the surveys can be found in the 2010 report on ORR's website<sup>20</sup>.

### The 2015 survey

The 2015 survey questionnaire<sup>21</sup> was sent by email to around 600 individuals representing 426 organisations, who were given seven weeks to respond. There were 56 responses, distributed as shown in Table 2.

In addition to asking specific questions relating to the implementation of amendments to ROGS since 2011, the 2015 survey asked for general feedback from stakeholders on their views and experience of ROGS to supplement the work undertaken in the 2010 report.

The different sizes of the organisations that responded are shown in Table 3.

<sup>20</sup> [http://orr.gov.uk/data/assets/pdf\\_file/0016/2554/rogs-evaluation-report-june10.pdf](http://orr.gov.uk/data/assets/pdf_file/0016/2554/rogs-evaluation-report-june10.pdf)

<sup>21</sup> [http://orr.gov.uk/data/assets/pdf\\_file/0009/19881/rogs-stakeholder-survey-2015.pdf](http://orr.gov.uk/data/assets/pdf_file/0009/19881/rogs-stakeholder-survey-2015.pdf)

Further details of the methodology and findings from the 2015 survey can be found in the on ORR's website ([http://orr.gov.uk/data/assets/pdf\\_file/0018/20970/conclusions-from-rogs-pir-2015-survey.pdf](http://orr.gov.uk/data/assets/pdf_file/0018/20970/conclusions-from-rogs-pir-2015-survey.pdf)).

<b>Table 2: Types of respondents to the 2015 survey</b>	
<b>Type of respondent</b>	<b>Number of responses</b>
TOC	13
Other*	12*
Operator under 40 km/h	11
Light railway	9
FOC	3
Metro system	3
Entity in charge of maintenance (ECM)	2
Infrastructure manager	1
Maintainer of vehicles or infrastructure	1
Trade union	1
OTM operation	0
Possession-only operation	0
Rolling stock manufacturer or company	0
Tramway	0
Passenger group	0
<b>Total number of respondents</b>	<b>56</b>

\*Includes six non-duty holders

<b>Table 3. Size of organisation</b>	
<b>Size</b>	<b>Number</b>
Fewer than 10 employees	4
Between 11 and 50 employees	12
Between 51 and 250 employees	14
More than 250 employees	26

### Representativeness of survey samples

The rail operators in Great Britain comprise:

- 55 mainline railway safety certificate or authorisation holders that either manage or maintain mainline railway infrastructure or operating trains above 40 kilometres per hour on the mainline railway<sup>22</sup> (these include TOCs, FOCs, Network Rail, infrastructure maintainers and ECMs);
- 18 non-mainline safety certificate or authorisation holders rail operators that either manage or maintain non-mainline infrastructure or operate vehicles above 40 kilometres per hour on non-mainline infrastructure<sup>23</sup> (these include light rail and metro systems and people movers);
- 6 freight wagon ECM certificate holders<sup>24</sup> that do not have a mainline safety certificate or authorisation; and

<sup>22</sup> <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/regulation-and-certification/rogs/safety-certificates-and-authorisation/mainline-certificates>

<sup>23</sup> <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/regulation-and-certification/rogs/safety-certificates-and-authorisation/non-mainline-certificates>

<sup>24</sup> <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/regulation-and-certification/rogs/entities-in-charge-of-maintenance/ecm-certificates-issued>

- 9 modern tramways and over 250 heritage, museum or tourist railways and tramways operating below 40 kilometres per hour<sup>25</sup>.

This makes an estimated total of around 338 duty holders under ROGS. So the representation of duty holders in the surveys is as shown in Table 4.

Table 4: Representativeness of survey samples					
	2015 survey	2010 evaluation			
		Baseline	Year 1	Year 2	Final
Survey responses from duty holders	49	16	22	22	17
Total number of duty holders	338	332*	332*	332*	332*
Percentage of sample representative of total duty holders	14%	5%	7%	7%	5%

\*ECM certification came into force in ROGS in 2013 therefore these were not duty holders in 2010.

Some groups did not respond to the 2015 survey (OTM operation; possession-only operation; rolling stock manufacturer or company; tramway; and passenger group) but these are not major duty holders under ROGS. However, all the different types of duty holders listed above have been represented in all the surveys.

#### 4. To what extent has the regulation achieved its policy objectives? Have there been any unintended effects?

##### Survey findings in the 2010 report

The overall key findings of the final survey in the 2010 report were as follows:

- 90% of organisations who responded believe that changes made as a result of ROGS are having a positive or neutral impact on their business. The other 10% believed they had a negative effect.
- 70% agreed that the standards of safety had remained the same under ROGS; 17% disagreed and the remainder did not offer an opinion either way.
- More respondents believe that ROGS have changed the way safety is managed (43%), than those who do not (35%).
- 60% of respondents felt that an SMS under ROGS has neither improved nor reduced safety (i.e. there has been no change). But 20% felt that safety had improved and 13% felt that it had been hindered. The remaining 7% were not sure.

##### Overarching findings from the 2015 survey on ROGS as a whole

The overall key findings from the 2015 survey concerning the whole of ROGS were as follows:

- There was strong support for the statement “***I think that ROGS are working well***” from around 71% respondents. Those that neither agreed nor disagreed (22%) still had positive comments to make. Comments indicate that ROGS provide the flexibility to manage safety appropriately for the size and complexity of the organisation within a structured framework. They provide the right balance of engagement/checks by ORR compared to the Railways (Safety Case) Regulations 2000, which were more prescriptive. The 4% that did not agree that ROGS are working well were operators below 40km/h (mainly heritage railway

<sup>25</sup> <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/regulation-and-certification/rogs/exclusions-from-mainline-railway-requirements>

operators). These commented that there is still ignorance of the regulations, a lack of clarity about what they mean and a belief that they are too onerous.

- ROGS have a positive impact on around 70% of respondents. Comments indicate that they provide a common framework for duty holders to manage their own risks and work with each other on common areas to continuously improve through shared knowledge and experience. They have raised standards in safety management and record keeping among duty holders. Around 9% were not sure and 21% thought ROGS had a neutral impact.
- Just over half of respondents (around 53%) thought that there have not been any unintended effects from ROGS. A small minority (about 10%) of respondents thought that there have been unintended effects. This belief was mainly expressed by operators operating < 40km/h and light railways. Some said that their costs had increased in order to comply with ROGS and more paperwork has been generated. Around 36% were not sure.
- Just over half of respondents (55%) agreed with the statement “**From experience, I think that the cost of ROGS has been proportionate to the benefits**”. Around 27% neither agreed nor disagreed and 14% had no opinion.

## Conclusions

Details of the extent to which each subsidiary objective of ROGS has been met can be found in Annex C. But the overall conclusion is that ROGS are working well. The objectives have largely been met with no unintended effects. Although some respondents (operators < 40km/h and light railways) to the 2015 survey indicated that their costs had increased as a result of complying with ROGS, it should be noted that the 2006 impact assessment envisaged that there would be a minor increase in costs for many of these operators. So while this point is important, this impact had been anticipated and therefore not considered to be ‘unintended’. Overall, a disproportionate effect on businesses with fewer than 50 employees does not appear to be a concern for ROGS.

ROGS provide the flexibility for duty holders to manage their own safety risks appropriately for the size and complexity of the organisation within a structured framework. They have raised standards in safety management and record keeping among duty holders.

ORR therefore has confidence that ROGS are helping to maintain national standards of rail safety in line with EU requirements and are striving for continuous improvement.

The evaluation of the extent to which ROGS has contributed to meeting the Railway Safety Directive’s object of opening the rail market was outside the scope of this PIR. Measuring the extent of market opening is relatively complex (as noted by the European Railway Agency in its publication *Railway Safety Performance in the European Union 2014*<sup>26</sup>).

However, the Agency has reported against one measurement index, the rail liberalisation index. The index has been produced by IBM Global Business Services<sup>27</sup> since 2002. It reflects legal and *de facto* barriers to market access from the perspective of an external railway undertaking seeking access to the market. It also details the market shares enjoyed by external railway undertakings in addition to the incumbent, to give a practical indication of existing barriers to an open market. The last edition of the index, published in 2011, benchmarked the rail market opening of EU Member States as of 1 January 2011 and ranks countries from those most advanced to those delayed in terms of rail market

<sup>26</sup> <http://www.era.europa.eu/Document-Register/Documents/SPR2014.pdf>

<sup>27</sup> Rail liberalisation index 2011, IBM Germany with Prof. Kirschner, Deutsche Bahn, 2011 (cited in [Railway Safety Performance in the European Union 2014](#))

opening. There are three categories of countries in terms of rail market opening based on the value of the index:

- countries that are considered as delayed (6);
- countries that are on schedule (15); and
- countries that are advanced (6), in terms of rail market opening.

According to the index, the UK is among the advanced countries, along with Austria, Germany, Denmark, Netherlands and Sweden.

**5a. Please provide a brief recap of the original assumptions about the costs and benefits of the regulation and its effects on business (e.g. as set out in the IA).**

The 2006 impact assessment assumed that there would be costs in moving from the safety case regime to the safety management system/safety certification/safety authorisation regime but over time there would be cost/time savings as less information would be required. It also assumed that standards of safety would be maintained and there would be health and safety benefits in moving to the new regime. The 2011 and 2013 impact assessments assumed that the amendments to ROGS would: provide better clarity; reduce time and costs in some areas; and maintain or improve standards of safety.

The 2006 impact assessment made the assumption that there will be health and safety benefits from the following:

- the refocusing of inspectors' priorities away from a paper based assessment to proactive inspection of duty holders' delivery of safety on the ground;
- bringing tramways into scope of ROGS;
- changing from ROTS approvals to safety verification and refocusing of ORR inspectors' priorities away from approvals and towards inspecting;
- extension of scope of the safety critical work requirements (additional tasks to be considered safety critical and more workers to be covered under the new regime); and
- bringing people movers, metros, and heritage and minor railways into the scope of safety management systems.

However, it was not possible to quantify these benefits in the 2006 impact assessment.

**5b. What have been the actual costs and benefits of the regulation and its effects on business?**

2006 assumptions

Table 5 compares the actual costs and benefits of each regulatory requirement for a typical business with original assumptions in the 2006 impact assessment.

Table 5: Comparing estimated costs in the 2006 impact assessment with actual costs								
Regulatory requirement	Actual values provided in 2016					Estimates in 2006 uplifted to 2016 prices		
	Number of responses	Mean average (£)	Min. (£)	Max. (£)	Type	Min. (£)	Max. (£)	Type
<b>Costs on a typical TOC</b>								

Establishing an SMS and obtaining a safety certificate or safety authorisation	18	<b>104,278*</b>	5,000	411,000*	one-off	32,235	54,155	one-off
	*This figure represents the reality of hiring consultants to do the job in 2016							
Maintaining an SMS	19	<b>249,053†</b>	1,000	1,500,000†	per year	838	8,381^	per year
	†This figure incorporates the cost from within the safety departments of railway organisations devoted to auditing and monitoring the SMS. ^It's likely that this figure reflects the cost of only keeping the SMS documentation up-to-date.							
Reapplying for a safety certificate or authorisation after 5 years	20	<b>21,630</b>	1,000	100,000**	one-off	29,656	51,577	one-off
	**SMSs are usually either 'carried over' by an existing operator or 'picked up' by a new one and starting from scratch. This figure therefore represents an operator starting from scratch.							
Producing an annual safety report	14	<b>2,229</b>	300	10,000	per year	-	4,513	per year
<b>Cost on a typical tramway operator</b>								
Establishing an SMS	2	<b>107,500*</b>	3,000	212,000*	one-off	15,860	27,078	one-off
	*This figure represents the reality of hiring consultants to do the job in 2016							
Maintaining an SMS	2	<b>14,250</b>	500	28,000	per year	2,063	20,244	per year
Safety verification (including ICP)	2	<b>725,250</b>	500	1,450,000†	one-off	-	5,802^	one-off
	†This figure represents the costs relating to a wholly new-build tramway, which includes engaging an independent competent person. ^It is likely that this figure only covers the engagement of an independent competent person.							
<b>Costs on a typical people mover</b>								
Establishing an SMS and obtaining a safety certificate or safety authorisation	0	<b>No data received</b>	No data received	No data received	one-off	-	18,052	one-off
Maintaining an SMS	0	<b>No data received</b>	No data received	No data received	per year	606	6,060	per year
Reapplying for a safety certificate or safety authorisation after 5 years	0	<b>No data received</b>	No data received	No data received	one-off	-	8,510	one-off
<b>Costs on a typical heritage railway operator</b>								
Establishing an SMS	20	<b>2,774</b>	Nil	12,500	one-off	-	27,078	one-off
Maintaining an SMS	20	<b>2,775</b>	Nil	43,200	per year	1,044	10,444	per year
<b>Costs on a typical controller of safety critical work</b>								
Training new safety critical worker	37	<b>16,262*</b>	Nil	200,000*	per year	98	587	per year
	*Reflects the real range of costs (e.g. train driver – higher costs; track worker safety controller – lower costs)							
Competence assessment for new SC worker	36	<b>7,665</b>	Nil	141,400**	per year	58	1,465††	per year
	**Reflects operating cost of maintaining the Competency Management System, including competency of assessors. ††It is likely that this only reflects the cost of carrying out an assessment.							

Fitness assessment for new SC worker	35	<b>853</b>	Nil	15,200	per year	30	193	per year
Record keeping	37	<b>6,150</b>	Nil	50,000*	per year	30	186	per year
	*Reflects cost of maintaining and auditing the Competency Management System							
Sharing information	34	<b>1,748</b>	Nil	22,000†	per year	6	76	per year
	†Includes cost of data protection compliance and attending meetings and industry best-practice forums.							

**Note:** (1) Nil values provided by heritage operators mean that there are zero costs because many of those operators are run by volunteers.

(2) Some averages appear to be significantly smaller than the maxima but this is due to some maxima being outliers with the majority of costs closer to the average.

(3) The costs for a controller of safety critical worker represent the wide range of safety critical roles and the wide range of associated costs

(4) It seems likely that the 2006 underestimated the costs relating to a safety critical worker.

The quantified assumptions in the 2006 impact assessment were uplifted to 2016 prices using the latest forecast figures for 2016 from the GDP deflator series (available from HM Treasury)<sup>28</sup> to give a better comparison of values. In addition to these, qualitative comparisons were made as shown in Table 6. (Qualitative cost data refers to the opinion on costs provided by stakeholders in the survey responses without providing any figures).

**Table 6: Comparing qualitative assumptions in the 2006 impact assessment with findings from the 2010 report**

Assumption	Findings in the 2010 report
A safety certificate will cost less than of a safety case because less detailed information will be required for a safety certificate.	The safety certification process took less time than safety case applications. This was the view of 50% of respondents to this question in the final year survey, with a further 40% citing that the time taken has been approximately the same under both regimes. Across the years, the most common response has been that the time taken to apply for certification has been less than for safety case applications.
	The safety certification process cost less than safety case applications. This was the view of 55% of the final year respondents who answered this question. A further 36% believed costs have been about the same under both regimes. Across the years, the most common response has been that costs have been lower for safety certification than safety case applications.
A safety authorisation will cost less than of a safety case because less detailed information will be required for a safety certificate.	Overall, safety authorisation appears to take less time than safety case applications. This was the view expressed by 60% of respondents that answered this question in the final survey. Across the years, there has been a steady improvement since year one where only 33% felt this way. A much lower proportion of respondents (15% to 20% in the last three surveys) feel that it has taken more time to undertake safety authorisation applications.
	Overall, safety authorisation appears to cost less than safety case applications. This was to view of 56% of the final year respondents who answered this question. A further 22% indicated that costs were about the same, and a separate 22% of respondents (a Metro company and an Infrastructure Manager) stated costs were more. In previous surveys, the dominant view has been that costs are approximately the same under both regimes.

<sup>28</sup> <https://www.gov.uk/government/statistics/gdp-deflators-at-market-prices-and-money-gdp-march-2016>

2011 assumptions

There were no material quantitative estimates in the 2011 impact assessment but qualitative comparisons were made as shown in Table 7.

<b>Table 7: Comparing qualitative assumptions in the 2011 impact assessment with the 2015 survey</b>	
<b>Assumptions</b>	<b>Findings from the 2015 survey</b>
There would be no material impact on cost for an ECM to be identified in the NVR and for an ECM to establish a maintenance system as the regulations build on existing arrangements	<p>Around 55% of respondents that said the ECM requirements applied to them indicated that costs relating to vehicle maintenance were about the same as before the ECM regime were introduced. Around 18% said that costs had increased and 27% were not sure. However, the ECM requirements do not apply to 9% of those that said costs had increased.</p> <p>This question in the survey also related to ECM certification, so it's possible that those that have said that costs have increase may have been referring to ECM certification (dealt with under '2013 assumptions'). The ECM requirements caused only 5% of those affected to make major changes to their existing set of processes, while 68% only required minor changes. Around 23% said their set of processes was suitable in its current form.</p>
The textual change of the definition of "work" in 'safety critical work' would have no material impact on cost because the provisions of Part 4 of ROGS already applied to voluntary workers and the amendment met the concerns of representatives of the heritage industry by removing confusion about who the requirements apply to.	<p>Around 14% of respondents said the change had a positive impact on them and 64% said it had a neutral impact. Around 2% said it had a negative impact. The other 20% were either not sure or gave no response.</p> <p>Around 63% said that the change has provided greater clarity; 9% said it hasn't; and the other 28% were either not sure or gave no response.</p>
Replacing Schedule 3 of ROGS (commons safety indicators) does not represent any additional resource or cost impact.	Around 68% of respondents said that this change had a neutral impact on them; 2% said it had a positive impact; 4% said there was a negative impact and the other 26% were either not sure or gave no response.



## 2013 assumptions

Table 8 compares the quantitative assumptions in the 2013 impact assessment, which estimated costs of £2m over ten years.

In addition to the quantitative comparisons made in Table 8, Table 9 provides a comparison with qualitative assumptions in the 2013 impact assessment with findings in the 2015 survey.

<b>Table 8: Comparing estimated costs in the 2013 impact assessment with actual costs</b>								
<b>Regulatory requirement</b>	<b>Actual values provided in 2016</b>					<b>Estimates in 2006 uplifted to 2014 prices</b>		
	Number of responses	Min. (£)	Max. (£)	Mean average (£)	Type	Min. (£)	Max. (£)	Type
<b>Costs on a typical freight wagon ECM</b>								
Familiarisation with the requirements and applying for ECM certificate	6	5,000	65,000	<b>32,917</b>	One-off	26,066	52,132	One-off
Professional head services	6	1,200	150,000*	<b>38,933</b>	Per year	-	12,638	Per year
Annual surveillance	6	1,000	110,000*	<b>40,233</b>	Per year	4,213	5,266	Per year
* It seems likely that the ECMs costs are higher as they have more wagons assigned to them.								
<b>Cost savings (benefits) for a typical freight wagon ECM</b>								
No longer undergoing the supplier assurance audit and documentation review when it presents an ECM certificate to a railway undertaking	2	0	2,525	<b>1,263</b>	Per year	-	4,739	Per year
<b>Cost savings (benefits) for the ECM Service Provision Agreement (ESPA)</b>								
From not having to provide professional head services which was under the previous Private	1	-	-	<b>49,600</b>	Per year from 2014	-	210,634	Per year

Wagon Registration Agreement					until 2018/19			
<b>Cost savings (benefits) for a typical railway undertaking</b>								
From an ECM having an ECM certificate	2	1,250	70,000	<b>35,625</b>	Per year	-	1,580	Per year
<b>Costs savings (benefits) for a typical train driver for a non-mainline operator from amending the definition of "mainline railway"</b>								
Medical assessment testing for per new driver from Oct 2013	14	110	60,000	<b>4,669</b>	One-off	-	316**	One-off
*This may include the cost of the driver taking time off to undertake the medical assessment test. **It is likely that this only includes the actual medical assessment testing.								
Psychometric testing for per new drivers from Oct 2013	13	100	4,650	<b>735</b>	One-off	-	211	One-off
Creating or modifying driver competence database	14	100	230,000*	<b>29,489</b>	One-off	-	12,638	One-off
* This may include the cost of starting from scratch in building a new competence database and the costs of adapting to changes in information technology.								
Certificate database administration	14	500	35,000	<b>11,075</b>	Per year	-	19,660	Per year
<b>Costs savings for a typical non-mainline operator</b>								
Cost savings on longer needing to send an annual safety report to ORR	3	1,000	5,000	<b>2,333</b>	Per year	-	421	Per year

**Note:** Some averages appear to be significantly smaller than the maxima but this is due to some maxima being outliers with the majority of costs closer to the average.

**Table 9: Comparing qualitative assumptions in the 2013 impact assessment with the 2015 survey**

Assumptions	Findings from the 2015 survey
Amending the definition of "mainline railway" will not create additional cost.	Around 68% of respondents said that amending the definition of "mainline railway" had a neutral impact on them; 13% said that there was a positive impact; 2% said it had a negative impact and the other 17% were either not sure or gave no response.
The removal of the annual safety report requirement for non-mainline operators did not represent any additional resource or cost impact.	Around 60% of respondents that said that the removal of the annual safety report requirements applied to them indicated that the cost and time spent on safety reporting were about the same; 30% said that they were less and 10% said they were more.  Around 50% said that the removal had a neutral impact; 40% said it had a positive impact; and 10% were not sure.
A baseline of 'do nothing' in relation to safety verification would have resulted in additional cost burdens being placed on the operator because costs will be incurred in carrying out safety verification as well as carrying out the common safety method for risk evaluation and assessment - the removal of safety verification meant that these costs would be avoided.	Of those that said that the removal of safety verification applied to them, 83% said that the cost and time spent on assessing and managing risks associated with safety-related significant changes is about the same; 8 thought they were less and the other 9% were not sure.
Clarifying that controllers of safety critical work must have in place <i>suitable and sufficient</i> monitoring arrangements would not create additional cost burdens on businesses.	Around 61% of respondents said that inserting <i>suitable and sufficient</i> had a neutral impact; 13% said there was a positive impact; 4% said there was a negative impact; and the remaining 22% were either not sure or gave no response.
Making the 28-day 'affected party' consultation period run concurrently with the assessment period would not create any additional cost burden for businesses but will in some cases shorten the time for an applicant to receive a decision from ORR.	Around 55% of respondents indicated that making the 28-day 'affected party' consultation period run concurrently with the 4-month assessment period had a neutral impact; 16% said it had a positive impact;

	and the remaining 29% were either not sure or gave no response.
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### Comparing actual costs with estimates

In some cases the 'actual' quantified costs and benefits are greater than the estimates and in some cases they are less. Because of the limitations of the 'actual' quantified values provided in 2016 (see Section 6) it has not been possible to draw any firm conclusions or provide any definitive explanation of the variances between 'actual' figures and those that were estimated. However, it is possible that the variances can be explained as follows:

- (i) Some organisations have either entered or left the rail market since 2006 and their costs may differ from those organisations that provided estimates in 2006. The regulations cover a wide range of businesses of different nature (e.g. size and type of operation). Moreover, even companies running similar businesses (such as TOCs, FOCs, etc.) appear to be very heterogeneous. As a result, the actual cost varies substantially across organisations.
- (ii) It's not clear from the way the information was presented in the 2006 impact assessment what was included or excluded in the estimated costs. Therefore it was difficult to know what operators should include or exclude when costs were requested from operators in 2016.
- (iii) Some figures were significantly high in comparison with the estimates and these were queried with operators. For example:
  - a) The estimated cost in the 2006 impact assessment for maintaining an SMS was less than £10,000. But the figures provided in 2016 indicate that it costs between £1000 and £1.5 million. These were queried with operators and an explanation for the difference could be that some operators in 2016 have included their day-to-day operating costs for managing safety and others have only included costs relating to reviewing and making changes to the SMS. Costs vary depending on the amount of work required and the type and amount of stakeholder engagement by the operator (for example reviewing and updating procedures, internal or external auditing and assurance activities, and validation of new systems).
  - b) The estimated cost in 2006 for training an additional or new safety critical worker was less than £600 per year. But figures provided in 2016 indicate that they are between £0 and £200,000. Some operators do not incur any costs for training whereas for others the costs vary enormously. These can include: obtaining a Personal Track Safety certificate; provision of basic training to a new trainee train driver with no railway experience embarking on an 18 month training programme; and practical train handling. Costs vary depending on training and equipment provided to trainees (e.g. vans, mobile phones, hotel accommodation, Personal Protective Equipment, etc.). It seems likely that these were not taken into account in the 2006 estimates.
  - c) For safety verification some costs only included the engagement of an independent competent person. For others the costs are based on the duration of the project (e.g. 8 years) and as the project went through various project management phases it was difficult to identify actual costs/time allocations.

- d) Before the ECM certification came into force there were around 20 private wagon owners/keepers or wagon maintainers that had the potential to become a certified ECM. Cost data obtained from three of these were used in the 2013 impact assessment to estimate the cost of certification for an ECM so the estimates may not have fully reflected all the costs. As it turns out there are now six certified ECMs that are wagon owners/keepers or maintainers. It seems likely that the cost for those ECMs would be higher as they have more wagons assigned to them.
- (iv) Different operators will have very different processes for establishing an SMS and obtaining a safety certificate. For some the figures are based on inheriting an SMS from the previous franchise holder. For others they are based on starting from scratch, which will incur more costs.
- (v) For some operators it has been difficult to separate out those system and staff costs that relate specifically to ROGS as distinct from those needed to comply with general health and safety legislation.

## **6. Assessment of risks or uncertainties in evidence base / Other issues to note**

One of the original objectives of the monitoring and evaluation of ROGS was to do a full cost-benefit analysis in the 2010 report. This could not be done since figures were only available from some operators. Any results and conclusions generated would have been misleading and therefore unsafe to base policy decisions upon. Instead qualitative cost data are used from the surveys.

Because of lack of quantified cost data from the previous surveys, the 2015 survey only asked for qualitative cost data. However, in a separate exercise in January 2016 ORR contacted 215 rail businesses to ask for quantified cost data. We received data from 47 of these, which are presented in Tables 5 and 8. This PIR therefore uses a combination of quantified and qualitative cost data to compare with the estimates.

The limitations with the 2006 impact assessment are as follows:

- (i) Only costs and cost savings of each regulatory requirement for a typical business have been considered for this PIR as the actual cost of these are the easiest for ORR (to which the responsibility for rail safety regulation transferred in 2006 from the Health and Safety Executive) to obtain from the operator.
- (ii) It is not clear if some figures are for safety certification only or whether they include safety authorisation. This PIR makes the assumption that the figures include both.
- (iii) Estimates for safety verification were only given for a typical tramway operator. But there was also a total range of figures for all operators over the appraisal period. However, it was not possible to break these down for the different operators. In any event, the requirement for safety verification was removed from ROGS for mainline operators in 2013 so this PIR only considers the cost of safety verification for tramways.

- (iv) It seems that the range of costs for a typical train operating company (TOCs) include metros, freight operating companies and Network Rail.

The ‘actual’ quantitative values provided in 2016 (as shown in tables 5 and 8) have the following limitations:

- (i) There was only a 22% response rate from operators (47 out of 215), which represents 14% of duty holders under ROGS (see paragraph 4.9). These are broken down as follows:

Mainline train operator	10
Mainline freight operator	2
Mainline infrastructure maintainer	4
Freight wagon ECM	4
Heritage railway operator	20
Tramway operator	2
Non-mainline train operator	5

- (ii) Not all components of the data requested were provided by those that responded.
- (iii) The size of businesses varies from having fewer than 10 employees (or only employing volunteers) to having over 250 employees.
- (iv) The figures have been estimated by operators in most cases and are therefore only indicative.
- (v) Some operators may have misunderstood what they were being asked to calculate and therefore the approach used to arrive at these figures may have varied. Further guidance was provided to those that requested it.
- (vi) It was not possible to obtain cost savings from non-mainline operators in relation to train driver licensing because the change to the definition of “mainline railway” in 2013 meant that the regulations have never applied to them. However, costs from mainline railway operators (to whom the regulations do apply) are used to provide an indication of what the savings would have been.

## 7. Lessons for future Impact Assessments

One lesson that can be learned for future impact assessments is that they should clearly set out what factors determine the estimated costs. For example by defining the scope of the data and stating what is included or excluded. This is so that: a consistent approach can be taken when businesses are asked to provide actual cost data as part of a post implementation review; and better comparisons can be made between estimated and actual costs.

## 8. What next steps are proposed for the regulation (e.g. remain/renewal, amendment, removal or replacement)?

The 2015 survey found that 59% of respondents thought that ROGS should remain without amendment and 21% thought that they should remain but with some amendments.

So on the whole, respondents think that ROGS are fit-for-purpose and should largely remain the same but some specific amendments have been proposed as set out in Annex C.

ORR recommends that ROGS remain in place as the objectives still remain valid. However some minor regulatory changes are proposed. These relate to:

- clarifying that the term “mainline railway” represents the *management and operation* of the mainline railway;
- replacing the term “placed in service” (and cognate expressions) with “put in use” to align with the Railways (Interoperability) Regulations 2011;
- modernising requirements in regulation 21 of ROGS relating to making documents available to the public so that they can be made available electronically; and
- making the common safety method (CSM) for risk evaluation and assessment (Commission Regulation (EU) 4012/2013) voluntary for non-mainline operators as an alternative to carrying out safety verification (this follows the removal of safety verification for mainline operators in 2013 because the CSM applies in a similar way).

The 2015 survey responses seem to indicate that there are still some uncertainties among duty holders about what parts of the Regulations apply to them. ORR therefore proposes a ‘ROGS toolkit’ which will help duty holders to pin-point what part of the Regulations apply to them depending on where they operate and the type of operation they have. In addition ORR proposes to provide better clarity of the regulations through improved guidance. For example clarifying the definition of “infrastructure manager” (particularly when there is more than one safety authorisation holder at a particular station).

On 11 May 2016 the European Commission published Directive (EU) 2016/798 as part of the Fourth Railway Package. This is a recast of the Railway Safety Directive and implementation will provide an opportunity to clarify and simplify existing provisions, consolidate previous amendments to ROGS and update the regulations. ROGS will need to be amended by 16 June 2019 to transpose the Safety Directive’s new requirements. Therefore the proposed regulatory changes above will be taken forward at that time.

ORR will consult on the regulatory proposals set out above along with a consultation on the proposals for transposing the recast Safety Directive. Therefore an impact assessment will be done at that time. However we envisage that the PIR regulatory proposals will not have a material impact on costs.

ORR envisages that there may be some cost savings from improved clarity from guidance (and the introduction of the ROGS toolkit). This will assist duty holders further in identifying and complying only with provisions which are relevant to their operations. However, it is difficult to quantify any cost savings.

On 23 June, the EU referendum took place and the people of the United Kingdom voted to leave the EU. Until exit negotiations are concluded, the UK remains a full member of the European Union and all the rights and obligations of EU membership remain in force. During this period the Government will continue to negotiate, implement and apply EU legislation. It will be for the Government, under the new Prime Minister, to begin negotiations to exit the EU. The outcome of these negotiations will determine what arrangements apply in relation to EU legislation and funding in future once the UK has left the EU.

**Sign-off** for Post Implementation Review:

***I have read the PIR and I am satisfied that it represents a fair and proportionate assessment of the impact of the policy.***

Signed: Alasdair Barrett (Head of Evaluation)

Date: 06/04/2016

Signed:

Date:

# Evidence Base

## Background to ROGS

The Railways and Other Guided Transport Systems (Safety) Regulations 2006 (S.I. 2006/599) (ROGS) came into force in full on 1 October 2006 and have subsequently been amended by the:

- Railways and Other Guided Transport Systems (Safety) (Amendment) Regulations 2006 [S.I. 2006/1057];
- Channel Tunnel (Safety) Order 2007 [S.I. 2007/3531];
- Passengers' Council (Non-Railway Functions) Order 2010 [S.I. 2010/439];
- Railways and Other Guided Transport Systems (Safety) (Amendment) Regulations 2011 [S.I. 2011/1860];
- Railways (Interoperability) Regulations 2011 [S.I. 2011/3066];
- Railways and Other Guided Transport Systems (Miscellaneous Amendments) Regulations 2013 [S.I. 2013/950];
- Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 [S.I. 2013/1471];
- Public Bodies (Abolition of Administrative Justice and Tribunals Council) Order 2013 [S.I. 2013/2042];
- Office of Rail Regulation (Change of Name) Regulations 2015 [S.I. 2015/1682]; and
- Railways and Other Guided Transport Systems (Safety) (Amendment) Regulations 2015 [S.I. 2015/1917].

ROGS require:

- most railway operators (defined as “transport operators”) to:
  - maintain a safety management system (SMS) and hold a safety certificate or authorisation indicating that the SMS has been accepted by the Office of Rail and Road (ORR);
  - show that they have procedures in place to introduce new or altered vehicles or infrastructure safely through a safety verification procedure using an independent competent person (if they are non-mainline transport operators);
  - carry out risk assessments and put in place the measures they have identified as necessary to make sure the transport system is run safely;
  - send ORR an annual report on their safety performance if they hold a safety certificate or authorisation for the mainline railway; and
  - cooperate with each other and work together to make sure the transport system is run safely;
- transport operators and their contractors to make sure their employees who carry out safety critical tasks are suitably competent and fit to do so;
- anyone who places in service, or uses, a rail vehicle on the mainline railway to make sure that:
  - the vehicle has an entity in charge of maintenance (ECM) assigned to it; and
  - the ECM is registered in the national vehicle register (NVR) before the vehicle is placed in service or used; and



- an ECM to have:
  - a maintenance system in place to ensure that all vehicles it maintains are safe to run; and
  - a certificate to demonstrate this if the vehicle is a freight wagon.

ROGS transposed the principle part of the Railway Safety Directive (2004/49/EC) (the rest of it was transposed by three other sets of regulations<sup>29</sup>), which established a common framework for the regulation and development of railway safety across all European Union Member States.

The requirement to implement the provisions of the Railway Safety Directive provided an opportunity to consolidate the pre-existing national regulatory framework in Great Britain and make significant deregulatory changes in line with Government policy. ROGS therefore:

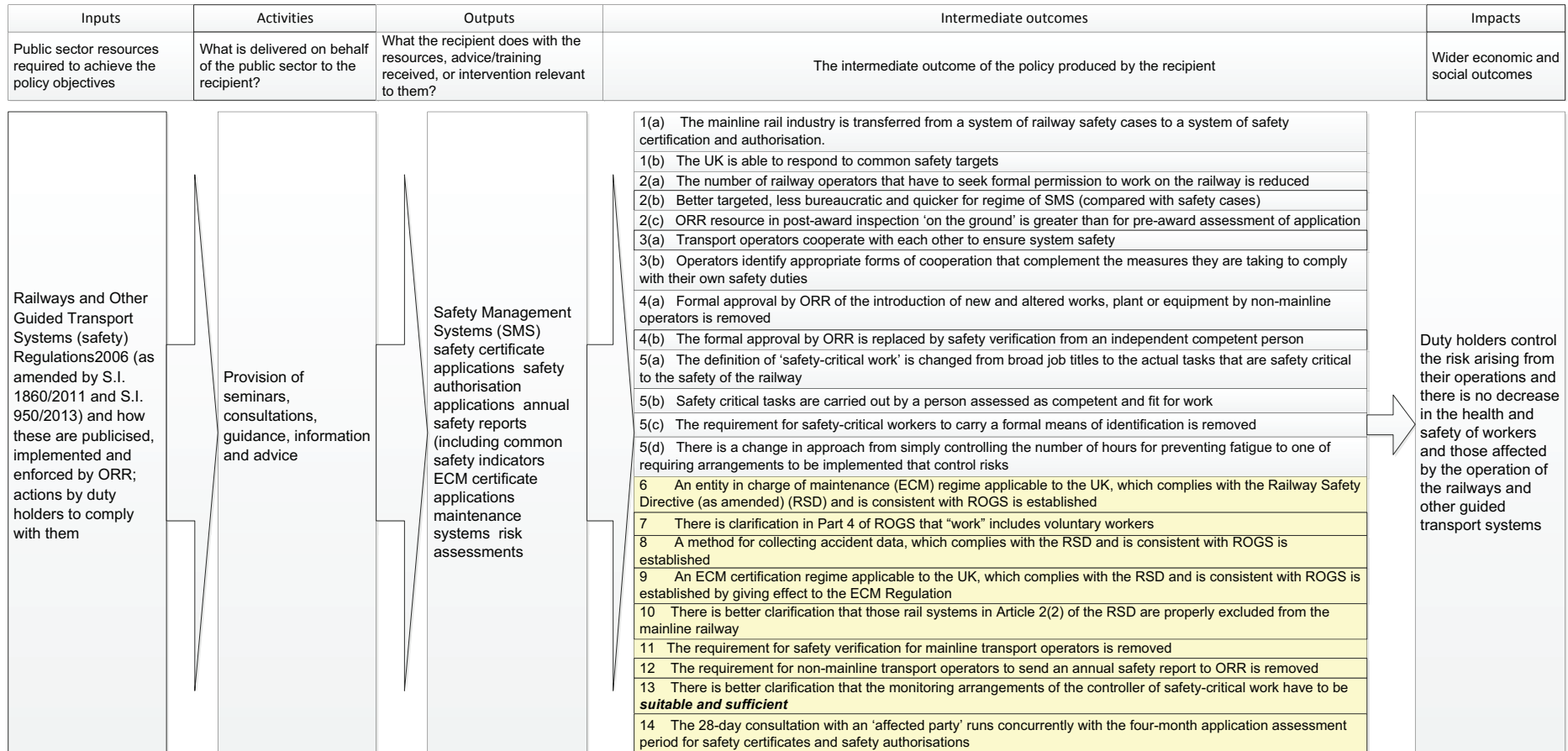
- replaced a detailed safety case regime from the Railway Safety Case Regulations 2000 with the Directive's similar requirement for an SMS that was then assessed at a less detailed level to provide safety certificates (for train operators) and safety authorisations (for infrastructure managers on the mainline railway);
- applied parallel principles for an SMS to non-mainline railways and transport systems but adapted to reflect the nature and extent of those operations (but not requiring the full certification or authorisation process provided by the Directive for the purposes of European harmonisation, or any certification requirements for some operators such as heritage and tramways);
- dispensed with the statutory technical approvals regime under the Railways and Other Transport Systems (Approval of Works, Plant and Equipment) Regulations 1994 (ROTS) to create a proportionate system of safety verification to control risks arising from the introduction of new or altered vehicles and infrastructure; and
- replaced the Safety Critical Work Regulations 1994 and introduced more goal-setting requirements for the management of safety-critical work (which implemented some recommendations from the Rt Hon Lord Cullen PC's inquiry into the Ladbroke Grove accident).

The provisions in ROGS are therefore a hybrid of European and national provisions. ORR is the independent safety and economic regulator for Britain's railways and monitor of Highways England. ORR is carrying out the PIR on behalf of the Secretary of State and will draw conclusions and make any recommendations for change if required. Her Majesty's Railway Inspectorate (HMRI) is part of ORR and is responsible for enforcing ROGS under the Health and Safety at Work etc. Act 1974.

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<sup>29</sup> The Railways (Access to Training Services) Regulations 2006 [S.I. 2006/598]; the Railways (Safety Management) Regulations (Northern Ireland) 2006 [S.I. 2006/237]; and the Railways (Accident Investigation and Reporting) Regulations 2005 [S.I. 2005/1992].

# Annex A – Logic Model



## Annex B – Evaluation planning: Evaluation questions and data sources

Logic Model Link	Evaluation question	Data source	Predicted impacts/success criteria from impact assessments
1(a)	To what extent was the mainline railway transferred from a system of safety cases to a system of certification and authorisation?	<ul style="list-style-type: none"> <li>• 2010 Report (Page 120 and 146)</li> <li>• ORR's COIN database</li> </ul>	No safety case applications received from ORR after 2008
1(b)	How is the UK able to respond to common safety targets?	<ul style="list-style-type: none"> <li>• 2010 Report (Pages 119 and 146)</li> <li>• NSA UK Annual Safety Report 2014</li> <li>• RSSB's Annual Safety Performance Report 2014/15</li> </ul>	Operator report on common safety indicators (CSIs) (through their annual safety reports), which contribute to national CSIs
2(a)	To what extent has the number of railway operators seeking formal permission from ORR to work on the railway been reduced?	<ul style="list-style-type: none"> <li>• 2010 Report (Pages 120 and 146)</li> <li>• ORR website (numbers of safety certificates issued)</li> </ul>	Those operating vehicles solely within an engineering possession will not require a safety certificate.
2(b)	Compared to safety cases, in what way is there now a better targeted, less bureaucratic and quicker regime for SMS?	<ul style="list-style-type: none"> <li>• 2010 Report (Pages 120-125 and 146-147)</li> </ul>	The time spent on maintaining an SMS is less than that for safety cases and the level of safety is maintained
2(c)	Is ORR resource in post-award inspection 'on the ground' greater than for pre-award assessment of safety case applications?	<ul style="list-style-type: none"> <li>• 2010 Report (Pages 125-126 and 147)</li> <li>• ORR internal survey question 40</li> </ul>	More ORR resource is concentrated on checking that operators are properly controlling the risks arising from their operations
3(a)	What measures exist to ensure that transport operators cooperate with each other to ensure system safety?	<ul style="list-style-type: none"> <li>• 2010 Report (Pages 127-130 and 147)</li> <li>• ORR internal survey question 41</li> <li>• RSSB/ORR guidance</li> </ul>	The relationship between the infrastructure manager and other operators is changed to create a level-playing field in which all parties are equally responsible for system safety (instead of the previous infrastructure controller taking the lead system)

3(b)	Do operators identify appropriate forms of cooperation that complement the measures they are taking to comply with their own safety duties?	<ul style="list-style-type: none"> <li>• 2010 Report (Pages 127-130 and 147)</li> <li>• ORR internal survey question 43</li> <li>• RSSB/ORR guidance</li> </ul>	The relationship between the infrastructure manager and other operators is changed to create a level-playing field in which all parties are equally responsible for system safety (instead of the previous infrastructure controller taking the lead system)
4(a)	To what extent has formal approval by ORR of the introduction of new and altered works, plant or equipment by non-mainline operations been removed?	<ul style="list-style-type: none"> <li>• 2010 Report (Pages 131-135 and 148)</li> <li>• ORR's COIN database</li> </ul>	'Safety verification', which focuses on significant changes capable of significantly increasing risk, is introduced and so the number of occasions when safety verification is required compared to approval under ROTS is reduced.
4(b)	To what extent has the formal approval by ORR been replaced by safety verification from an independent competent person?	<ul style="list-style-type: none"> <li>• 2010 Report (Pages 135-137 and 148-149)</li> <li>• ORR's COIN database</li> </ul>	'Safety verification', which focuses on significant changes capable of significantly increasing risk, is introduced and so the number of occasions when safety verification is required compared to approval under ROTS is reduced.
5(a)	Has the definition of 'safety-critical work' changed from broad job titles to the actual tasks that are safety critical to the safety of the railway?	<ul style="list-style-type: none"> <li>• 2010 Evaluation Report (Pages 138 and 149)</li> </ul>	There is greater clarity on the tasks that have the potential to significantly affect the health and safety of persons on a transport system
5(b)	Are safety critical tasks carried out by a person assessed as competent and fit for work?	<ul style="list-style-type: none"> <li>• 2010 Report (Pages 138-144 and 149)</li> </ul>	The competence and fitness of safety critical workers is adequately managed by the person in control of safety critical work.
5(c)	Has the requirement for safety critical workers to carry a formal means of identification been removed?	<ul style="list-style-type: none"> <li>• 2010 Report (Pages 144 and 149)</li> <li>• The Regulations</li> </ul>	The need for formal means of identification is replaced with a competence management system and the proliferation of ID card across the industry is reduced.
5(d)	In what way has there been a change in approach from simply controlling the number of hours for preventing fatigue to one of requiring arrangements to be implemented that control risks?	<ul style="list-style-type: none"> <li>• 2010 Report (Pages 144-145 and 149-150)</li> <li>• 2015 Survey question number 32</li> </ul>	A number of contributory factors are taken into account by the person in control of safety critical work to ensure workers do not undertake safety critical work if they are fatigued (or liable to become fatigued) which could significantly affect their health or safety and that of others on a transport system.

6	In what way has an entity in charge of maintenance regime applicable to the UK, which: complies with the Railway Safety Directive (as amended); and complies with ROGS been established? What is the impact of the ECM regime?	<ul style="list-style-type: none"> <li>Data from the National Vehicle Register</li> <li>2015 Survey question numbers 15 – 18(a) and 19</li> </ul>	Greater assurance that the maintenance of rail vehicles is controlled to an acceptable level in terms of risk and cost is provided by a consistent approach to vehicle maintenance.
7	Is there clarification that in the 'safety critical work' requirements in ROGS "work" includes voluntary workers? What is the impact of this?	<ul style="list-style-type: none"> <li>The Regulations</li> <li>2015 Survey question numbers 33-34</li> </ul>	Confusion about who the safety critical work requirements apply to is removed.
8	What method is there for collecting accident data, which complies with the Railway Safety Directive and is consistent with ROGS? What is the impact of this?	<ul style="list-style-type: none"> <li>Annual Safety Performance Report 2013/14 (RSSB) (Pages 41 – 46)</li> <li>2015 Survey question number 38</li> </ul>	ORR (representing UK national safety authorities) is able to report to the European Railway Agency as to whether safety levels are at least being maintained at a national level.
9	Has an ECM certification regime applicable to the UK, which complies with the Railway Safety Directive and is consistent with ROGS been established by giving effect to the ECM Regulation? What is the impact of ECM certification?	<ul style="list-style-type: none"> <li>ERADIS</li> <li>ORR website</li> <li>2015 Survey question numbers 15 – 19</li> </ul>	Assurance that an ECM is able to safely maintain the freight wagons for which it has responsibility is provided by an ECM certificate. The burden on transport undertakings in terms of time and cost involved in ensuring that freight wagons have been properly and safely maintained is reduced.
10	Is there better clarification that those rail systems in Article 2(2) of the Railway Safety Directive are properly excluded from the mainline railway? What is the impact?	<ul style="list-style-type: none"> <li>ORR operational data</li> <li>ORR website</li> <li>2015 Survey question numbers 28 – 30</li> </ul>	Confusion about which rail systems are excluded from the mainline railway (particularly if they have vehicles that run on mainline infrastructure) is removed.
11	Has the requirement for safety verification for mainline transport operators been removed? What is the impact?	<ul style="list-style-type: none"> <li>The Regulations</li> <li>2015 Survey question numbers 25 - 27</li> </ul>	Additional burdens on mainline transport operators are avoided as the common safety method for risk evaluation and assessment applies in a similar way to safety verification.
12	Has the requirement for non-mainline transport operators to send annual safety report to ORR been removed? What is the impact?	<ul style="list-style-type: none"> <li>The Regulations</li> <li>ORR's Mosaic database</li> <li>2015 Survey question numbers 21 - 23</li> </ul>	The burden on non-mainline transport operators is removed as these operators are excluded from the requirements of the Railway Safety Directive and ORR does not see any value in them producing the reports.

13	Is there better clarification that the monitoring arrangements of the controller of safety critical work have to be <b>suitable and sufficient</b> ? What is the impact?	<ul style="list-style-type: none"> <li>• The Regulations</li> <li>• ORR internal survey question 43</li> <li>• 2015 Survey question numbers 35-36</li> </ul>	There could be improvements in safety if there is better clarification for duty holders and ORR inspectors would be able to require improvements in monitoring arrangements if they were considered to be unsuitable and insufficient.
14	Does the 28-day consultation with an 'affected party' run concurrently with the four-month application assessment period? What is the impact?	<ul style="list-style-type: none"> <li>• The Regulations</li> <li>• ORR internal survey question number 37</li> <li>• 2015 Survey question number 37</li> </ul>	In some cases the time taken for an applicant to receive a decision from ORR could be shortened.
Overarching questions	Are ROGS working well?	2015 Survey question numbers 5 and 8	
	What would happen without ROGS?	2015 Survey question numbers 9 - 10	
	Are there any unintended effects?	2015 Survey question number 7	
	Are there any negative impacts?	2015 Survey question number 6	
	Should any changes be made to ROGS?	2015 Survey question numbers 9 and 11-12	
	Have businesses with <50 employees been disproportionately affected?	2015 Survey question number 13	

## Annex C – Findings

Logic Model Link	Evaluation question	Findings
1(a)	To what extent was the mainline railway transferred from a system of safety cases to a system of certification and authorisation?	<p>The entire mainline railway has transferred from a system of safety cases to a system of certification and authorisation.</p> <p>Survey data from the 2010 Report indicated that there was steady progress among survey respondents in successfully completing the safety certification and authorisation process. According to ORR's Corporate Information (COIN) database no safety case files were created after 2008. The last safety case file was created on 20 October 2006. The last safety case file that was closed was on 1 April 2008. The mainline railway has completely transferred from a system of safety cases to a system of certification and authorisation.</p> <p>Therefore this objective has been met.</p>
1(b)	How is the UK able to respond to common safety targets?	<p>The UK responds to common safety targets through the collection of common safety indicators from transport operators.</p> <p>The European Railway Agency (ERA) develops common safety targets (CSTs) and national reference values (NRVs) to monitor the performance of EU Member States in this area.</p> <p>NRVs are designed to reflect observed baseline levels of safety in each Member State. ERA is monitoring each Member State's performance against its NRVs to determine whether levels of safety are at least being maintained in each category.</p> <p>The level of safety performance across the EU is assessed using the common safety indicators (CSIs) that National Safety Authorities (NSAs) submit to ERA as part of their annual safety reports. The Rail Safety and Standards Board (RSSB) co-ordinates the collation of UK CSIs by identifying potentially relevant events from its Safety Management Information System and validating them with the transport operators involved. It provides CSI data to ORR on behalf of the rail industry, which satisfies the requirements set out in the regulation 20(1)(c) of ROGS for transport operators to produce an annual safety report. Since 2006 ORR has been sending the UK NSA annual safety report to ERA. (Source: RSSB's Annual Safety Performance Report 2014/15: <a href="http://www.rssb.co.uk/Library/risk-analysis-and-safety-reporting/2015-07-aspr-full-report-2014-15.pdf?web=1">http://www.rssb.co.uk/Library/risk-analysis-and-safety-reporting/2015-07-aspr-full-report-2014-15.pdf?web=1</a>). These are published on ERA's website (<a href="http://www.era.europa.eu/Core-Activities/Safety/Regulatory-Framework/Pages/network-of-national-safety-authorities.aspx">http://www.era.europa.eu/Core-Activities/Safety/Regulatory-Framework/Pages/network-of-national-safety-authorities.aspx</a>). The most recent version covers 2014 (<a href="http://orr.gov.uk/data/assets/pdf_file/0007/4975/era-annual-report-2014.pdf">http://orr.gov.uk/data/assets/pdf_file/0007/4975/era-annual-report-2014.pdf</a>)</p>

		<p>Performance against NRVs for 2014 can be found in Section 2.7 of RSSB's Annual Safety Performance Report 2014/15 (<a href="http://www.rssb.co.uk/Library/risk-analysis-and-safety-reporting/2015-07-aspr-full-report-2014-15.pdf?web=1">http://www.rssb.co.uk/Library/risk-analysis-and-safety-reporting/2015-07-aspr-full-report-2014-15.pdf?web=1</a>).</p> <p>This objective has therefore been met.</p>
2(a)	To what extent has the number of railway operators seeking formal permission from ORR to work on the railway been reduced?	<p>The number of railway operators seeking formal permission from ORR to work on the railway has been reduced to the extent of excluding those that operate vehicles solely within a possession.</p> <p>The definition of "transport undertaking" in ROGS excludes a person operating a vehicle solely within a possession. According to the European Railway Agency Database of Interoperability and Safety (ERADIS) (<a href="https://pdb.era.europa.eu/safety_docs/scert/search_results.aspx">https://pdb.era.europa.eu/safety_docs/scert/search_results.aspx</a>), ORR has not issued any safety certificates to those operating vehicles solely within an engineering possession. ORR has only issued safety certificates to transport undertakings as defined in ROGS; therefore this objective has been met.</p>
2(b)	Compared to safety cases, in what way is there now a better targeted, less bureaucratic and quicker regime for SMS?	<p>ROGS provide greater flexibility and the right balance of engagement/checks by ORR compared to the Railways (Safety Case) Regulations 2000, which were more prescriptive.</p> <p>Survey data from the 2010 Report indicated that the SMS under ROGS is certainly not more expensive or time consuming than the previous regime. Participants in the industry workshop commented that ROGS had provided a flexible framework within which to design a SMS. This was echoed in responses to the 2015 stakeholder survey.</p> <p>This objective has therefore been met.</p>
2(c)	Is ORR resource in post-award inspection 'on the ground' greater than for pre-award assessment of safety case applications?	<p>The time spent on post-award inspection since ROGS were introduced has either stayed the same or increased.</p> <p>Data from the 2010 Report indicated that inspector resource was starting to shift to providing more on the ground' inspection. A survey among staff in Her Majesty's Railway Inspectorate (HMRI) in 2015 found that most (56%) thought that the time spent on post-award inspections had either stayed the same or had increased. Some inspectors spend more time on the ground looking at how the SMS is being applied.</p> <p>This objective appears to have been met.</p>
3(a)	What measures exist to ensure that transport operators cooperate with each other to ensure system safety?	<p>There was some evidence from the 2010 Report that duty holders had representatives in place for interfacing with other organisations as well as systems in place for managing boundaries; many of which were already in existence prior to ROGS.</p>



		<p>The majority of duty holders surveyed confirmed that the duty of cooperation had not impacted on safety (60% in the baseline survey; 80% in year one; 55% in year two; and 56% in year three).</p> <p>This objective appears to have been met.</p>
3(b)	Do operators identify appropriate forms of cooperation that complement the measures they are taking to comply with their own safety duties?	<p>The 2010 Report found that a large proportion (71% for year one) of duty holders surveyed confirmed that they had been through the process of identifying where most interfacing already takes place.</p> <p>A survey among HMRI staff in 2015 found that from the experience of 50%, transport operators identify the appropriate forms of cooperation that complement the measures they are taking to comply with their own safety duties. But when it comes to transport operators communicating with each other, there appears to be less evidence of this.</p> <p>This objective appears to be on its way to being met.</p>
4(a)	To what extent has formal approval by ORR of the introduction of new and altered works, plant or equipment by non-mainline operations been removed?	<p>There is no longer any formal approval by ORR of the introduction of new and altered works, plant or equipment by non-mainline operators as ROGS removed this requirement.</p> <p>Survey data from the 2010 Report suggests that rail organisations do have processes in place for safety verification (which replaced the formal approval by ORR of the introduction of new and altered works, plant or equipment). According to ORR's Corporate Information (COIN) database no ROTS approvals case files were created after October 2008.</p> <p>Therefore this objective has been met.</p>
4(b)	To what extent has the formal approval by ORR been replaced by safety verification from an independent competent person?	<p>Formal approval by ORR has been completely replaced by safety verification by an independent competent person as ROGS removed this requirement.</p> <p>Survey data from the 2010 Report suggests that organisations have been appointing independent competent persons.</p> <p>This objective has therefore been achieved.</p>
5(a)	Has the definition of 'safety-critical work' changed from broad job titles to the actual tasks that are safety critical to the safety of the railway?	<p>ROGS changed the definition of 'safety critical work' from broad titles to the actual tasks that are critical to the safety of the railway.</p> <p>Baseline survey data from the 2010 report indicated that 75% of respondents had identified what work was 'safety critical' in the organisation as part of making ROGS related changes. In the year one survey most respondents (62%) also confirmed they identified safety critical work.</p> <p>This objective has therefore been achieved.</p>

5(b)	Are safety critical tasks carried out by a person assessed as competent and fit for work?	<p>Safety critical tasks are carried out by a person assessed as competent and fit for work.</p> <p>The baseline survey and year one survey from the 2010 Report indicated that the majority of respondents (around 70% in both surveys) explicitly identify workers undertaking safety critical work and those managing them.</p> <p>This objective appears to have been met. Going forward, this objective remains valid.</p>
5(c)	Has the requirement for safety critical workers to carry a formal means of identification been removed?	<p>ROGS do not include a requirement for safety critical workers to carry formal means of identification therefore this objective has been met.</p>
5(d)	In what way has there been a change in approach from simply controlling the number of hours for preventing fatigue to one of requiring arrangements to be implemented that control risks?	<p>Rather than simply controlling the number of hours worked, transport operators use a variety of measures to control the risk of fatigue.</p> <p>Survey results from the 2010 Report indicated that this objective had not been fully addressed. But the results from the 2015 survey indicated that 70% of respondents said that their organisation was responsible for controlling the work of safety critical workers. Of these, the following measures are used to control the risk of fatigue for safety critical workers:</p> <ul style="list-style-type: none"> <li>• nearly four-fifths (79%) use 'number of hours worked';</li> <li>• just under three-quarters (74%) review other factors, such as shift patterns, frequency of breaks, commute time, etc. which may influence worker fatigue;</li> <li>• just under three-quarters (72%) follow the ORR guidance '<i>Managing Rail Staff Fatigue</i>'; and</li> <li>• around three-fifths (about 61%) follow Health and Safety Executive guidance.</li> </ul> <p>Other measures used include following Heritage Railway Association guidance; introducing self-reporting arrangements; and working with other industries to learn from them.</p> <p>This objective seems to have been met.</p>
6	In what way has an entity in charge of maintenance regime applicable to the UK, which: complies with the Railway Safety Directive (as amended); and complies with ROGS been established? What is the impact of the ECM regime?	<p>Regulation 18A of ROGS contains the provisions for an entity in charge of maintenance and ORR has published a Railway Guidance Document (<a href="http://orr.gov.uk/data/assets/pdf_file/0015/2283/rgd-2012-01-web.pdf">http://orr.gov.uk/data/assets/pdf_file/0015/2283/rgd-2012-01-web.pdf</a>) on those provisions.</p> <p>The 2015 survey results indicate that the ECM regime has gone some way to improve safety. Around 55% of respondents that said the ECM requirements applied to them indicated that costs relating to vehicle maintenance were about the same as before the ECM regime were introduced. Around 18% said that costs</p>

		<p>had increased and 27% were not sure. However, the ECM requirements do not apply to half of those that said costs had increased.</p> <p>This question in the survey also related to ECM certification, so it's possible that those that have said that costs have increase may have been referring to ECM certification (where some cost increases were envisaged). The ECM requirements caused only 5% of those affected to make major changes to their existing set of processes, while 68% only required minor changes. Around 23% said their set of processes was suitable in its current form.</p> <p>Just over a quarter (27%) of respondents thought that an ECM certificate reduces a transport undertaking's time and cost spent ensuring that freight wagons have been properly and safely maintained. Just over half (54%) had no opinion on this.</p> <p>The ECM regime appears to provide some assurance that the maintenance of rail vehicles is controlled to an acceptable level in terms of risk and cost. An ECM certificate has gone some way in providing assurance that an ECM is able to safely maintain the freight wagons for which it has responsibility. It has also gone some way in reducing a transport undertaking's time and cost spent ensuring that freight wagons have been properly and safely maintained.</p> <p>This objective appears to have been met.</p>
7	In what way is there clarification that in the 'safety critical work' requirements in ROGS "work" includes voluntary workers? What is the impact of this?	<p>The amendment has had a neutral impact on businesses, with a positive impact in some areas. It has now provided greater clarity about who the safety critical work requirements apply to.</p> <p>The 2015 survey results indicated that 62% of respondents thought that the 2011 amendment of the definition of "work" in 'safety critical work' to included volunteers has now provided greater clarity about who the safety critical work requirements apply to. Almost two-thirds (64%) said that the change had a neutral impact and around 14% said that it had a positive impact.</p> <p>This objective appears to have been met.</p>
8	What method is there for collecting accident data, which complies with the Railway Safety Directive and is consistent with ROGS? What is the impact of this?	<p>(RSSB) co-ordinates the collation of UK CSIs by identifying potentially relevant events from its Safety Management Information System and validating them with the transport operators involved. It provides CSI data to ORR on behalf of the rail industry, which satisfies the requirements set out in the regulation 20(1)(c) of ROGS for transport operators to produce an annual safety report. Since 2006 ORR has been sending the UK NSA annual safety report to ERA. (Source: <i>RSSB's Annual Safety Performance Report 2014/15</i>: <a href="http://www.rssb.co.uk/Library/risk-analysis-and-safety-reporting/2015-07-aspr-full-report-2014-15.pdf?web=1">http://www.rssb.co.uk/Library/risk-analysis-and-safety-reporting/2015-07-aspr-full-report-2014-15.pdf?web=1</a>).</p> <p>The replacement of Schedule 3 of ROGS in 2011 with a new one to improve reporting, data quality and consistency with Eurostat data had a neutral impact on 68% of respondents to the 2015 survey.</p> <p>This objective appears to have been met.</p>

9	Has an ECM certification regime applicable to the UK, which complies with the Railway Safety Directive and is consistent with ROGS been established by giving effect to the ECM Regulation? What is the impact of ECM certification?	<p>An ECM certification regime has been established in the UK. ORR is a certification body, as indicated on ERADIS (<a href="https://pdb.era.europa.eu/safety_docs/ecm/certBodies/search_results.aspx">https://pdb.era.europa.eu/safety_docs/ecm/certBodies/search_results.aspx</a>). It has issued 10 ECM certificates (<a href="http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/regulation-and-certification/rogs/entities-in-charge-of-maintenance/ecm-certificates-issued">http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/regulation-and-certification/rogs/entities-in-charge-of-maintenance/ecm-certificates-issued</a>).</p> <p>Also see objective 6.</p> <p>Along with objective 6, this objective appears to have been met.</p>
10	Is there better clarification that those rail systems in Article 2(2) of the Railway Safety Directive are properly excluded from the mainline railway? What is the impact?	<p>Overall, amending the definition of “mainline railway” has created better clarity on what systems are excluded from the mainline railway with neutral impact. There has been positive impact in some areas.</p> <p>The 2015 survey indicates that 68% of respondents thought that the definition of “mainline railway” inserted into ROGS in 2013 provides better clarity on what systems are excluded from the mainline railway. Around 70% said that a determination by ORR and publication of a list of systems provided better clarity that they are excluded.</p> <p>This objective appears to have been met.</p>
11	Has the requirement for safety verification for mainline transport operators been removed? What is the impact?	<p>There is no longer a requirement in ROGS for mainline transport operators to carry out safety verification (SV). Overall, the SV removal has had a neutral impact and costs have been about the same as they were before.</p> <p>Of the 21% of respondents to the 2015 survey that said that the removal of the requirement for mainline transport operators to carry out SV applied to them, 83% said that the cost and time spent on assessing and managing risks associated with safety-related significant changes are about the same as they were before. Three-quarters (75%) said that the removal had a neutral impact and 17% said it had a positive impact.</p> <p>This objective appears to have been met.</p>
12	Has the requirement for non-mainline transport operators to send annual safety report to ORR been removed? What is the impact?	<p>The Railways and Other Guided Transport Systems (Miscellaneous Amendments) Regulations 2013 removed the requirement for non-mainline transport operators to send an annual safety report to ORR.</p> <p>The 2015 survey found that of the 18% of respondents that said the removal applied to them 60% of these said that the resulting costs relating to safety reporting was about the same as it was before. Nearly one-third (30%) thought that costs were lower and 10% (one respondent) thought that costs were higher.</p> <p>Half (50%) said the removal had a neutral impact on them and two-fifths (40%) thought that it had a positive effect on them.</p> <p>This objective appears to have been met.</p>

13	Is there better clarification that the monitoring arrangements of the controller of safety critical work have to be <b>suitable and sufficient</b> ? What is the impact?	<p>The words “<i>suitable and sufficient</i>” now provides better clarity.</p> <p>Half 50% of respondents to the 2015 survey said that the insertion of the words ‘<i>suitable and sufficient</i>’ in relation to having arrangements for monitoring the competence and fitness of safety critical workers has provided better clarity on what is required. Around 23% were not sure about this.</p> <p>Almost three-fifths (61%) said that inserting “<i>suitable and sufficient</i>” had a neutral impact. Around 12% said that it had a positive or very positive impact.</p> <p>This objective appears to be on its way to being met.</p>
14	Does the 28-day consultation with an ‘affected party’ run concurrently with the four-month application assessment period? What is the impact?	<p>The 28-day ‘affected party’ consultation period now runs concurrently with the four-month assessment period.</p> <p>Just over half (55%) of respondents said that it had a neutral impact and 16% said that it had a positive or very positive impact. This is because the change speeds up the process for applicants.</p> <p>This objective has been met.</p>
<b>Overarching questions</b>	Are ROGS working well?	<p>ROGS are working well.</p> <p>The 2015 survey indicates that 71% of respondents agreed with the statement “<b><i>I think ROGS are working well</i></b>”. Those that neither agreed nor disagreed (22%) still had positive comments to make.</p>
	What would happen without ROGS?	<p>As ROGS are working well, only 2% of respondents to the 2015 survey indicated that ROGS should be removed and not be replaced. There was no suggestion as to what would happen without ROGS.</p>
	Are there any unintended effects?	<p>Overall, there are no unintended effects.</p> <p>Most respondents (53%) indicated that there were no unintended effects from ROGS. A small minority (about 10%) thought that there have been unintended effects. This belief was mainly from operators &lt; 40km/h and light railways. Some said that their costs had increased in order to comply with ROGS and more paperwork has been generated. But it should be noted that the 2006 impact assessment envisaged that there would be a minor increase in costs for many of these operators. So while this point is important it is not necessarily an ‘unintended’ or unanticipated effect. Around 36% were not sure.</p>
	Are there any negative impacts?	<p>Overall, there appear to be no significant negative impacts.</p> <p>The 2015 survey indicates that 70% of respondents thought that ROGS have a positive impact. Comments indicate that they provide a framework for duty holders to manage their own risks and work with each other on common areas to continuously improve through shared knowledge and experience. They have raised standards in safety management and record keeping among duty holders. Around 9% were not sure and 21% thought ROGS had a neutral impact.</p>

	Should any changes be made to ROGS?	Some changes to ROGS have been proposed.	
		The 2015 survey found that 59% of respondents thought that ROGS should remain without amendment but 21% thought that they should remain but with some amendments. The following changes were proposed by respondents:	
		Amendment proposed	ORR's response
		Clarify that the term "mainline railway" concerns the management and operation of the mainline railway as a whole; and improve coherence between ROGS and the Railways (Interoperability) Regulations 2011 (as amended) (RIR)	Accept. Proposals for this will be taken forward in guidance and, if possible, in future revisions to ROGS.
		Clarification of the national 'Part B' requirements of the safety management system in relation to standards – should refer to national technical rules as well as Technical Specifications for Interoperability (TSIs) and national safety rules.	Accept in principle. ROGS will need to be amended to reflect that the Fourth Railway Package now brings together <i>national technical rules</i> and <i>national safety rules</i> as " <i>national rules</i> ". (However, because the Fourth Railway Package removes the concept of 'Part B' certificates it will not be possible to make the precise proposed amendment.)
		Common safety targets – where regulation 5(1)(a)(i) of ROGS requires the safety management system (SMS) to be established to ensure that the mainline railway system can achieve the CSTs, the best that can be asked for is that an SMS is established to ensure that the relevant part of the mainline railway system can achieve any CSTs established for that part of the mainline railway system.	Accept in principle. ORR accepts the general thrust of this proposal, and believes that it is recognised in the recast Safety Directive.
		The term "placed in service" should be replaced by "put into use" to align the RIR.	Accept in principle. ORR will propose that this will be taken forward during implementation of the recast Interoperability and Safety Directives (noting that the former introduces the new concept of "placed on the market").
ECM/transport undertaking – given that the responsibility for ensuring a vehicle is in a safe state of running now lies with the ECM (and not with the transport undertaking), it would be logical to recognise this in the requirement for a transport undertaking's SMS: <b>Proposal:</b> 5.—(2) The requirements in paragraphs (1)(a) and (d) shall be met where the safety management system of a transport operator or of an applicant for a safety certificate or a safety authorisation ("the first operator") taken with—	Reject. ORR will provide guidance to clarify the ECM's responsibility but does not accept the rationale that is inferred by the proposed change. It also notes that the proposed change is not consistent with the Railway Safety Directive or the recast Safety Directive.		

		(a) the safety management system of any relevant transport operator; and (b) the system of maintenance of any relevant entity in charge of maintenance, is capable of meeting the requirements of the paragraph in question.	
		Infrastructure manager – there needs to be better clarity in ROGS in relation to who has overall responsibility when there are more than one safety authorisation holders at a particular station, e.g. Stratford.	Accept in principle. ORR agrees that there needs to be better clarity in this area and will provide improved guidance. But no regulatory change is proposed (noting that no specific regulatory amendments were suggested in the survey responses).
		Duty of cooperation – better clarity about who is obliged to initiate the necessary cooperation and take responsibility in 'common areas' where two or more parties interface;	Accepting in principle. ORR will provide guidance on this.
		CSM for risk evaluation and assessment – Regulation 6(4) on safety verification (SV) should be amended to allow non-mainline duty holders to use the CSM as an alternative to SV;	Accept. ORR will propose that this will be taken forward when the recast Safety Directive is implemented.
		Independent approval of significant changes to operations and procedures by ORR inspectors before these are brought into use.	Reject. This looks similar to an approval role that ORR had under the Railways and Other Transport Systems (Approval of Works, Plant and Equipment) Regulations 1994 (ROTS), which were repealed and replaced by safety verification (SV) under ROGS. The purpose of SV is to provide a flexible process to make sure projects that could significantly increase risk are safe. This is achieved by appointing an 'independent competent person' - this person can come from inside or outside the organisation. ORR is therefore not proposing to take on this role.
		The annual safety reports should cover the rail year rather than the calendar year.	Reject. The period that the annual safety report covers is set out in the Railway Safety Directive as being the calendar year. Therefore ORR is not proposing any changes in relation to this.
		ROGS should be split into parts that apply separately to mainline and non-mainline duty holders.	Reject. ORR is not proposing any regulatory change in relation to this. However, the proposed 'ROGS toolkit' and improved guidance should help to provide better clarity on what parts of ROGS apply to mainline and non-mainline duty holders.
	Have businesses with <50 employees been disproportionately affected?	Overall a disproportionate effect on businesses with fewer than 50 employees does not appear to be a concern for ROGS.	

		<p>The 2015 survey indicates that 46% of respondents thought that this was not a concern for ROGS. Almost as many (39%) were either not sure or did not provide a response to this question. But 14% of respondents, including 25% of the 16 respondents from businesses with 50 or fewer employees, thought that there was a disproportionate impact on smaller businesses.</p> <p>Comments from the four respondents from businesses with fewer than 50 employees who were concerned about this were that:</p> <ul style="list-style-type: none"> <li>• there is a disproportionate effect on costs of re-training staff to meet the new regulations;</li> <li>• the amount of paperwork is disproportionate to the benefits; and</li> <li>• it is hard to comply with the Regulations when management teams are also 'hands on'.</li> </ul> <p>Half of the businesses with 50 or fewer employees said that there was not disproportionate impact on them and 25% were not sure.</p> <p>The rail operators in Great Britain comprise:</p> <ul style="list-style-type: none"> <li>• 55 mainline railway safety certificate or authorisation holders that either manage or maintain mainline railway infrastructure or operating trains above 40 kilometres per hour on the mainline railway<sup>30</sup> (these include TOCs, FOCs, Network Rail, infrastructure maintainers and ECMs);</li> <li>• 18 non-mainline safety certificate or authorisation holders rail operators that either manage or maintain non-mainline infrastructure or operate vehicles above 40 kilometres per hour on non-mainline infrastructure<sup>31</sup> (these include light rail and metro systems and people movers);</li> <li>• 6 freight wagon ECM certificate holders<sup>32</sup> that do not have a mainline safety certificate or authorisation; and</li> <li>• 9 modern tramways and over 250 heritage, museum or tourist railways and tramways<sup>33</sup> operating below 40 kilometres per hour</li> </ul> <p>Figures for how many employees these operators have are not available. However of the 56 respondents to the 2015 survey, 16 (29%) were from businesses with 50 or fewer employees. These represent 5% (16 out of 338) the total duty holders under ROGS and are broken down as follows:</p>
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<sup>30</sup> <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/regulation-and-certification/rogs/safety-certificates-and-authorisation/mainline-certificates>

<sup>31</sup> <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/regulation-and-certification/rogs/safety-certificates-and-authorisation/non-mainline-certificates>

<sup>32</sup> <http://orr.gov.uk/what-and-how-we-regulate/health-and-safety/regulation-and-certification/rogs/entities-in-charge-of-maintenance/ecm-certificates-issued>

<sup>33</sup> [http://orr.gov.uk/\\_data/assets/pdf\\_file/0017/2555/rogs-exclusion-approved-list.pdf](http://orr.gov.uk/_data/assets/pdf_file/0017/2555/rogs-exclusion-approved-list.pdf)



		<table border="1"> <tr> <td>Railway (or other system) operating under 40 km/h</td> <td>4</td> <td>25.0%</td> </tr> <tr> <td>Other</td> <td>4</td> <td>25.0%</td> </tr> <tr> <td>ECM</td> <td>2</td> <td>12.5%</td> </tr> <tr> <td>Light railway</td> <td>4</td> <td>25.0%</td> </tr> <tr> <td>FOC</td> <td>2</td> <td>12.5%</td> </tr> </table> <p>It is the view of ORR that while some businesses may have a small number of employees every rail business has the same duty to protect the workforce and the public. A minimum standard of safety management is necessary for businesses to carry out this duty. The regulatory demand on businesses should be proportionate to the level of risk that the business creates. ROGS recognises this by requiring all railway and tramway duty holders to have a written safety management system (SMS), adapted to the character and extent of their operation.</p> <p>Reflecting the need for regulation to be proportionate, ROGS does not require generally lower-risk sectors (tramways and transport systems that do not run at speeds above 40 kilometres per hour) to obtain safety certificates or safety authorisations from ORR. ROGS have also been implemented in a way that ensures ORR excludes all operations the UK is able to (such as metro and light rail systems) from the specific demands of EU legislation, and ORR proposes to continue to do so when it proposes revisions to ROGS to implement the recast Safety Directive. ORR believes the responses to the 2015 survey illustrate that the impact of ROGS on businesses with fewer than 50 employees is not disproportionate.</p>	Railway (or other system) operating under 40 km/h	4	25.0%	Other	4	25.0%	ECM	2	12.5%	Light railway	4	25.0%	FOC	2	12.5%
Railway (or other system) operating under 40 km/h	4	25.0%															
Other	4	25.0%															
ECM	2	12.5%															
Light railway	4	25.0%															
FOC	2	12.5%															

# **Annex D – National implementing measures for the Railway Safety Directive and other national measure in other EU Member States**

## **Purpose of this paper**

The purpose of this paper is to find out, compared with Great Britain:

- what national implementing measures exist in a sample of three EU Member States for the transposition of the Railway Safety Directive (2004/49/EC) in relation to:
  - safety certificates;
  - safety authorisations;
  - safety management systems (SMSs);
  - annual safety reports; and
  - entities in charge of maintenance (ECMs);
- what national legislative arrangements are in place for the regulation of safety on metros, trams, light rail, and heritage (historic or tourist) rail operations; and
- whether there have been any issues with the operation and effectiveness of the national implementing measures for the Railway Safety Directive in individual Member States, including compliance levels.

This paper used translation tools to translate the national implementing measures from the individual Member States on the European Commission website (<http://eur-lex.europa.eu/collection/n-law/mne.html>). It was sent to the National Safety Authorities (NSA) of three Member States to confirm the accuracy and ensure that nothing has been misrepresented in translation.

## **Great Britain**

The Railways and Other Guided Transport Systems (Safety) Regulations 2006 (as amended) (ROGS) is the national implementing measure for the Railway Safety Directive in Great Britain. Although there isn't direct 'copy-out' of the Directive there is some copy-out of the text in the Directive. There is little reference to particular Articles in the Directive and in the ECM Regulation (445/2011/EU).

There are separate national provisions to regulate the safety of metros, trams, light rail and heritage rail operations. The national provisions require these types of operations to have an SMS, but the requirements are less onerous than those in the Railway Safety Directive. Unless they are tramways or railways operating at speeds below 40km/h, they will also require a safety certificate to operate vehicles and a safety authorisation for the infrastructure. These national provisions are contained in the same legal instrument (ROGS) that transpose the Railway Safety Directive.

The requirements for ECMs do not apply metros, trams, light rail or heritage rail operations and they are not required to send an annual safety report to the national safety authority.

Generally there have been no issues with the operation and effectiveness of the national implementing measures for the Railway Safety Directive in Great Britain. There has been a high level of compliance and the national safety authority (NSA) has neither revoked a safety certificate or safety authorisation nor has prosecuted for non-compliance with the national implementing measure.

## Germany

The General Railway Act (AEG) (and all its subsequent regulations) is the national implementing measure for the Railway Safety Directive in Germany. It applies to railways. It does not apply to trams and those similar to trams in either construction or operation.

There does not appear to be a direct 'copy-out' of the Directive but there are references to particular Articles in the Directive and in the ECM Regulation (445/2011/EU). For example *"a safety certificate will be issued when the railway company can prove that it has established a safety management system, which meets at least the requirements of Article 9 paragraphs 2 and 3 of Directive 2004/49/EC"*; and *"the safety authority shall grant a maintenance certificate upon application if the applicant demonstrates that he has set up a maintenance system that meets at least the requirements of Article 4 of Regulation (EU) no. 445/2011"*.

The ECM certification requirement (Section 7g of the Act) expressly excludes freight wagons used solely on private infrastructure and for historic or touristic purposes. This seems to suggest that they are included in other provisions of the Act.

There appears to be additional responsibilities for the ECM to keep records (not in the Directive) as well as having a maintenance system. The maintenance system is *"subject to the requirements of Article 4 of the ECM Regulation"*.

There are separate national provisions for the regulation of metros, trams and light rail. These are contained in separate legal instruments:

- Law on passenger transport (Personenbeförderungsgesetz, PBefG); and
- Regulation on building and operation of trams, metros etc (Verordnung über den Bau und Betrieb der Straßenbahnen, BOStrab)

These contain a set of requirements for safety, capability, reliability and knowledge but does not make reference to SMS or any other requirement from the Railway Safety Directive.

Historic and tourist railways are in scope of the General Railway Act. A non-public railway (nichtöffentliche Eisenbahn) (or private infrastructure) is also in scope, but some requirements such as licensing and safety authorisation do not apply.

There have not been any issues in Germany with the operation and effectiveness of national implementing measures for the Railway Safety Directive, but there have been reports that has been difficult for the sector to adapt to the new requirements. There were delays in implementing the requirements due to discussions with the German federal states.

The level of compliance in Germany with the national implementing measures is medium (compared to high compliance in Great Britain, Ireland and The Netherlands). There is still work to do to comply with the requirements (especially in relation to SMS and common safety methods (CSMs), but the sector is working to increase compliance.

The Germany NSA has not revoked a safety certificate or safety authorisation for non-compliance with the national implementing measures. However the NSA has in some cases refused to award a certificate or authorisation after an assessment of an application.

## **Republic of Ireland**

The Railway Safety Act 2005 (as amended by the European Communities (Railway Safety) Regulations 2008) is the national implementing measure for the Railway Safety Directive in Ireland. There does not appear to be direct 'copy-out' of the Directive but there are references to particular Articles in the Directive. In the Act, "railway undertaking" means—

- (a) Iarnród Eireann—Irish Rail,
- (b) a heritage railway, or
- (c) any other person who operates a railway

The Act applies to all railway undertakings. Part 4 of the Act relates to safety management systems. But CSMs, CSTs and TSIs do not apply to light rail, metros or heritage railways. All railway undertakings must have an SMS and each must have a safety certificate. However a railway operator and an infrastructure manager must have a safety management system in accordance with Article 9 of the Railway Safety Directive. A railway operator must be issued with a safety certificate before it can operate railway services. An infrastructure manager must be issued with a safety authorisation before it can manage or operate railway infrastructure.

*'railway operator' means—*

- (a) *any public or private undertaking licensed in accordance with the European Communities (Licensing of Railway Undertakings) Regulations 2003 (S.I. No. 537 of 2003) or otherwise by law, the principal activity of which is to provide services for the transport of goods or passengers or both by rail, and*
- (b) *any other public or private undertaking, the activity of which is to provide transport of goods or passengers or both by rail, on the basis that the undertaking must ensure traction including an undertaking which provides traction only.*

In addition there are a number of additional Regulations that have further brought Ireland's national legislation into line with the Railway Safety Directive. These include:

- Statutory Instrument No. 419 of 2011, which covers interoperability, TSIs and such like
- Statutory Instrument No. 444 of 2013, which essentially brings Ireland's legislation fully into line with Directive 2004/49/EC. (It plugs any gaps in the Railway Safety Act 2005.)

Therefore in Ireland only heavy rail operators, i.e., railway undertakings and infrastructure managers are issued with a 'safety certificate' or 'safety authorisation'. All other railway operators such as light rail, metros or heritage railways, while required to have an SMS, are issued with what is called in Ireland a 'safety management certificate'. This was deliberately done so as to differentiate them from the heavy rail sector. The requirements are essentially the same. The difference to Great Britain here is that in Great Britain tramways and railways operating at speeds below 40 km/h (largely heritage railways) do not require a safety certificate.

The safety authority in Ireland must notify the applicant of its decision as soon as practicable after it has completed its assessment but no later than three months after the date of receipt of the application or receipt of all information or clarifications requested. This is less than the four months in the Directive and in Great Britain. This is because Ireland uses a pre-application phase where a lot of issues are sorted out. This means that the actual formal assessment then normally takes less than a month.

There have not been any issues in Ireland with the operation and effectiveness of the national implementing measures for the Railway Safety Directive.

The level of compliance with the national implementing measures for the Railway Safety Directive has been high.

The Ireland NSA has not revoked a safety certificate or safety authorisation for non-compliance with the national implementing measures for the Railway Safety Directive. Where non-compliance is identified, the NSA uses its enforcement tools employing the principle of escalation, i.e. depending on the level of non-compliance ('minor' or 'major') it either requests an Improvement Plan or serves an Improvement or Prohibition Notice. This is a similar approach to Great Britain.

## **The Netherlands**

*'Decree of 3 December 2004, laying down detailed rules regarding the business licence and the safety certificate for railway undertakings that use the railway network (Decision business licence and safety certificate for main railways)' and the 'Act of 23 April 2003, containing new general rules regarding the construction, management, accessibility and use of railways as well as traffic on the railways (Railway)' are both the national implementing measures of the Railway Safety*

Directive in The Netherlands. There doesn't appear to be direct 'copy-out' and there are some references to particular Articles in the Directive.

In addition to the provisions for a safety certificate under Article 10 of the Railway Safety Directive 2004/49/EC there are provisions for a 'test' or 'pilot' certificate, which is valid for a maximum of 13 weeks. The 'test' or 'pilot' certificate is granted for the purposes of gaining experience or for testing procedures or rail vehicles.

The Directive permits the granting of certificates for a period up to five years. Although there may be occasions in Great Britain where a safety certificate may be granted for less than five years, there is no specific provision in ROGS for this. The provision in the Directive has been copied out to provide flexibility.

There are separate national legislative provisions for the regulation of:

- Trams and metros ['Wet lokaalspoor' (WLS) and its regulations/decisions]; and
- Historical lines ['Besluit bijzondere spoorwegen' (BBS)]

Trams and metros (local lines) are required to have an SMS and are licenced by the decentralised government (not the NSA). The WLS (Article 19 for infrastructure managers and Article 28 for railway undertakings) refers to Article 9(2) of the Railway Safety Directive 2004, but excludes paragraph 2(c) of Annex III in the reference to that Annex. The NSA (ILT) checks the SMS and advises the decentralised government.

ITL is not the judicial authority for local lines so does not issue penalties, licences, derogation, etc. The formal authority is the decentralised government for the region.

Historical lines are not required to have an SMS. However, they are required to have 'a duty of care', including taking steps to manage risks. They are not licenced, but are supervised by ITL on behalf of the Minister.

There have not been any issues in the Netherlands with the operation and effectiveness of the national implementing measures for the Railway Safety Directive.

The level of compliance with national implementing measures is high and the NSA has not revoked any safety certification or safety authorisation for non-compliance.

## **Summary and conclusions**

Although there does not appear to be direct copy-out of the Railway Safety Directive in any of the four countries, there appeared to be a greater proportion in Great Britain than elsewhere. German, Ireland and The Netherlands instead tend to make more references to the articles in the Directive rather than copy out the text directly.

Overall there does not appear to be any gold-plating of the Directive's requirements in any of the four countries. However the following approaches, which are different to those adopted in Great Britain, were observed:

- Germany's national implementing measures have an additional requirement on the ECM to keep records, which is not a requirement of the Directive.
- Ireland's national implementing measures mandate a maximum three-month assessment period for the NSA once an application for a safety certificate has been received. This is less than the four months required by ROGS, which is the maximum allowed in the Directive. But there is a pre-application phase in Ireland which reduces the burden on the NSA once the application has been submitted, resulting in quicker processing of applications. ORR does not believe that a four-month assessment period puts UK businesses at a competitive disadvantage when compared to similar operators in mainland Europe.
- The NSA in Ireland has issued three safety certificates to railway undertakings compared to 50 that ORR has issued. There is currently no franchise system in place in Ireland and there is just one state-owned railway undertaking (excluding the cross-border service from Northern Ireland) that operates regular passenger services. This compares to Great Britain where private sector companies compete to operate passenger services through franchises awarded by the Department for Transport. There are 16 franchise railway undertakings and eight other types of passenger railway undertakings (including open access operators) in Great Britain to which ORR has issued safety certificates.
- If the UK adopted Ireland's approach to assessment, the franchise award process would require ORR to carry out pre-application engagement (i.e. review draft application documentation) with all potential bidders before the award of the franchise to the successful bidder, which would mean that its work with unsuccessful bidders would be nugatory. This requirement would place additional burdens on all but the successful bidder and, in the longer term, add to the overall cost for those businesses. ORR believes that a more effective use of resources is to review only the winning bidder's application documentation before formal submission. A shorter assessment period would not reduce the burden on applicants any further as the franchise start date is unlikely to change.
- The Netherland's national implementing measures contain a requirement for a 'Test' or 'Pilot' safety certificate, which is valid for a maximum of 13 weeks. This is granted to railway undertakings that want to gain experience or those that want to test trains. The Directive permits safety certificates to be valid for up to five years. ORR may issue certificates for less than this period on a case by case basis. A requirement similar to The Netherlands may create unnecessary costs for some operators, particularly because the testing of trains does not normally fall within the scope of safety certification for the mainline railway under ROGS.

The Railway Safety Directive permits Member States to exclude, metros, trams, light rail, heritage or tourist railways and vehicles, and functionally separate networks from its provisions. All four countries have separate national provisions to regulate the safety of these (with some exceptions for Germany). However there are similarities and difference in approaches as follows:

- In Great Britain, Ireland and The Netherlands trams/light rail are required to have an SMS. In Ireland they are also certificated. In Germany there is no SMS requirement but some requirements for safety.
- In Great Britain, Ireland and The Netherlands metros are required to have an SMS. In Great Britain and Ireland they are also certificated. In Germany there is no SMS requirement but some requirements for safety.
- In Germany heritage (or historical) railways are in scope of the national implementing measure for the Railway Safety Directive. In Great Britain, Ireland and The Netherland there are separate provisions for heritage railways. An SMS is required, but in Ireland they are also certificated.

ORR does not believe that there are any competitive disadvantages for UK businesses in relation to the derogations from the Directive's provisions.

There have been no issues with operation and effectiveness of the national implementing measures for the Directive in any of the four countries. But in Germany it was difficult for the sector to adapt to the new requirements as well as delays in implementing the requirements due to discussions with the German federal states.

On a scale of high/medium/low, the level of compliance has been high in Great Britain, Ireland and The Netherlands. In Germany compliance has been medium. There is still work to do to comply with the requirements (especially in relation to SMS and common safety methods, but the sector is working to increase compliance).

In Great Britain, ORR implements compliance and enforcement strategies in order to:

- ensure that duty holders comply with relevant health and safety legislation, or if they fail to comply, ensure they are held to account;
- ensure duty holders eliminate or properly control risks;
- take action to deal immediately with serious risks;
- promote and achieve sustained compliance with the law; and
- deter non-compliance and prevent work-related ill health and injury to workers, passengers and other members of the public who may be affected by the operation of Britain's railways.

ORR's compliance and enforcement strategies range from information, advice, persuasion, co-operation, inspection, audit, permissioning, verification and compulsion through to deterrence activities of formal enforcement. Its approach is generally to assist rail industry business to comply with their occupational health and safety obligations through verbal and written advice. But it will also adopt



stricter methods where the duty holder fails to respond to its advice or where the seriousness of the non-compliance justifies it. However, in most circumstances, ORR is able to secure compliance without recourse to formal enforcement tools.

Using its health and safety powers and enforcement responsibilities from a number of sources, including the Health and Safety at Work etc. Act 1974<sup>34</sup>, ORR has a range of stronger sanctions available to it to secure compliance or impose sanctions for the most serious breaches of the law where necessary. These include:

- issuing an improvement notice to require compliance by a certain date;
- issuing a prohibition notice that prohibits a practice or use of plant, equipment or a substance until it can be undertaken or used safely;
- revoking a safety certificate or safety authorisation issued under ROGS (a transport operator cannot operate without the necessary certificate or authorisation);
- issuing a simple caution (out of court disposal) in England and Wales;
- prosecuting in the courts in England and Wales; and
- reporting to the Crown Office and Procurator Fiscal Service in Scotland.

All the sanctions listed above are available to secure compliance with ROGS. Since 2006 ORR has either issued a prohibition or improvement notice or has successfully prosecuted for non-compliance with ROGS as follows<sup>35</sup>:

These are broken down by duty holder as follows:

<b>Year</b>	<b>Prohibition notice</b>	<b>Improvement notice</b>	<b>Prosecution</b>
2006	0	0	0
2007	0	0	0
2008	0	4	0
2009	0	0	0
2010	0	7	0
2011	2	9	1
2012	0	1	0
2013	1	4	0
2014	2	2	0
2015	0	2	0
2016	1	0	0
<b>Total</b>	<b>6</b>	<b>29</b>	<b>1</b>

<b>Type of duty holder</b>	<b>Improvement notice</b>	<b>Prohibition notice</b>	<b>Prosecution</b>
FOC	1	0	0
TOC	3	1	0
Mainline Infrastructure manager	7	2	0
Non-mainline infrastructure manager	1	0	0
Operator under 40 km/h	16	3	1
Metro operator	1	0	0

<sup>34</sup> [http://orr.gov.uk/\\_data/assets/pdf\\_file/0016/5650/health-and-safety-compliance-and-enforcement-policy-statement-2016.pdf](http://orr.gov.uk/_data/assets/pdf_file/0016/5650/health-and-safety-compliance-and-enforcement-policy-statement-2016.pdf)

<sup>35</sup> <http://orr.gov.uk/publications/public-register>

Overall, it does not appear that ROGS have created any issues in Great Britain in relation to

- a competitive disadvantage to businesses compared to their EU counterparts; and
- gold-plating of the Railway Safety Directive.

ORR has not identified any additional measures that could be taken to streamline the implementation of the Railway Safety Directive to reduce costs to businesses.

