

REPORT

Office of Rail Regulation (ORR)

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REVISION DETAILS

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DESCRIPTION OF CHANGES

Revision	Section	Change
0	Index	Corrected page numbers
	Executive Summary	-Addition to explain report addresses Project Objectives 4 and 5 -Addition to explain no rating for Strategy level IN factor 'Profitability'
	2.3	Corrected bullet numbering
	3.3.3	Inserted paragraph to explain not all percentages total 100% due to rounding
	3.6.3.3	'ICP' presented in full
	3.6.6	Addition to briefly explain Regulation 19
	4.2.6, Table 15	CPT 'Organisation Type' changed from Union to Association (light rail)
	5.2.1	'Spawned' changed to 'led to'
	6.3	Removed 'Total' row from all cost tables
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EXECUTIVE SUMMARY

INTRODUCTION

The Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS) define the safety management regime adopted across all UK rail companies since October 2006. The Office of Rail Regulation (ORR) wanted to establish monitoring and evaluation arrangements for ROGS in order to monitor and evaluate both their performance and their overall impact. In order to conduct this effectively ORR commissioned GL Noble Denton to carry out a project to collect and develop a baseline measure, collect safety, cost and cultural performance indicators over a three-year period, and then analyse this evidence to assess whether ROGS had met their original aims and objectives, as well as being value for money.

The project had five key objectives; the first three objectives were addressed in the published baseline and monitoring reports. The fourth and fifth objectives were to analyse data collected on the effectiveness of ROGS in terms of value for money and prepare a final evaluation report based on all of the data gathered, drawing out lessons learnt and conclusions on the effectiveness of ROGS. This current report addresses the fourth and fifth project objective.

OVERARCHING EVALUATION METHODOLOGY

The evaluation methodology was based on establishing the ultimate and subsidiary objectives of ROGS at the outset of the project and then collecting a range of evidence over a three-year period to help assess whether or not the Regulations had achieved their intended objectives. The project therefore began by outlining the ROGS objectives, developing an overarching evaluation plan and collecting a baseline measure (via a review of existing data, an Influence Network workshop and a ROGS survey). This was published in 'Monitoring Report 1'. This was followed by a second ROGS survey (Year 1) to gather further safety performance measures (initial outcomes) from a range of rail industry stakeholders and findings were published in 'Monitoring Report 2'. This was followed by a third ROGS survey (Year 2) to gather further performance measures (intermediate outcomes) from industry and published in 'Monitoring Report 3'. During this time period GL Noble Denton also endeavoured to collect operational data from ORR and HMRI. The final ROGS survey to collect 'final outcome' indicators (Year 3) was issued at the end of 2009 in addition to conducting a second and final Influence Network workshop.

The main data collection time points were as follows:

- **Baseline measure** - review of existing information from 2006 and primary research (including baseline ROGS survey and baseline Influence Network workshop) conducted during August to September 2007.
- **Initial outcomes measure** – ROGS survey issued early 2008 (Year 1)
- **Intermediate outcomes measure** – ROGS survey issued early 2009 (Year 2)
- **Final outcomes measure** - ROGS survey issued end of 2009 (Final) and final Influence Network workshop

Analysis was then conducted to triangulate the evidence collected over the project period and map the findings against the ROGS original aims and objectives to assess to what extent they had been achieved. An analysis of the industry cost data collected was also conducted to assess the effectiveness of ROGS in terms of value for money.

INDUSTRY SURVEYS

The overarching aim of the four industry surveys was to gather data that would help to indicate the extent to which the original ROGS objectives had been achieved. One survey structure containing a core set of questions was developed to allow for direct comparison over time, although small changes were made to some survey questions in later years to account for industry changes that had occurred and progression in the uptake of ROGS. The survey consisted of two main parts. The first part was completed by everyone (i.e. duty holders and non-duty holders) and consisted of background questions about the rail organisation; questions on the responders' awareness and understanding of ROGS; safety culture questions; and also requested general feedback on ROGS and ORR. The second part was completed by duty holders only and asked for more specific duty holder background details and feedback on each element of ROGS (i.e. safety management systems, safety verification, safety certification, safety authorisation, risk assessment, the annual safety report, duty of co-operation and safety critical work). The survey was issued to a range of rail industry stakeholders and targeted at individuals with a responsibility for safety (e.g. Safety Managers, Supervisors, Safety Representatives etc.). Survey responses were collated electronically and analysed using bespoke consultation analysis software.

A summary of the survey findings across the project period follows:

Survey sample

- Out of the 23 respondents in the final year survey, 18 classed themselves as duty holders. This compares to 17 duty holders (out of 26 respondents) at baseline, 22 duty holders (out of 28 respondents) in year one, and 23 duty holders (out of 27 respondents) in year two.
- Of the final year respondents, 35% were from train operating companies (TOCs).

Awareness and understanding of ROGS

- Respondents were asked whether they used guidance in understanding and implementing ROGS. Around 57% (13 out of 23) of the final year respondents said they did, which is a steady decline from an original 100% (25 out of 25) at baseline.
- The most popular source of help used to understand and implement ROGS by the final year respondents was ORR published guidance (92%, 12 out of 13), which is consistent with previous surveys.
- Other significant sources of guidance for the final year respondents was direct contact with ORR (62%, 8 out of 13) and RSSB published guidance (46%, 6 out of 13). These sources of guidance have remained significant over all previous surveys.

Industry safety culture indicators

- In the final year, the majority of respondents answered favourably to 11 out of 13 safety culture statements. A similar trend was seen across all other years.

- With regard to the statements about near miss reporting and understanding of work-related risk, the largest percentage of respondents in the final year were unfavourable. This was similar to previous surveys in relation to near miss reporting, but the response to risk understanding was at its most unfavourable in the final year.
- Additional supplementary questions were added to the year one survey in order to explore industry safety culture in more detail.
- Overall perceptions have remained positive over the last three surveys regarding management involving staff in safety related decision making and safety being a key priority.
- When asked whether staff are placed under pressure to meet operational performance objectives, across all three years the majority of respondents agreed that there are circumstances where staff are placed under pressure.
- When asked whether such pressure affects safety, 35% (8 out of 23) of the final year respondents agreed that it does, which was higher than previous surveys.
- Respondents were further asked who communicates the message that safety is a key priority. The majority of final year respondents (65%, 15 out of 23) reported that it was a mixture of senior / middle management, safety representatives and site work supervisors. Such results are in line with previous surveys, with the majority reporting that a mixture of individuals communicate that safety is a priority.

Feedback on ROGS and ORR

- In the final year, more respondents believed that ROGS had changed the way safety is managed (43%, 10 out of 23), than those who did not (35%, 8 out of 23). This trend is also consistent with previous surveys, with the exception of year one.
- Around 43% (10 out of 23) of respondents felt that ROGS had influenced safety related decision-making, down from year two (59%, 16 out of 27). However, there is evidence of fluctuation in terms of attitudes regarding this from year to year.
- Consistent with previous surveys, the majority of the final year respondents (70%, 16 out of 23) agreed or strongly agreed that standards of safety are the same under ROGS.
- When asked whether more could be done to reduce the administrative burden of the regulations, the most common response was 'no' (39%, 9 out of 23), with very similar proportions expressing the same view in previous surveys.
- Just over half of respondents (52%, 12 out of 23) 'requested and received help' from ORR, the same as year two and a decrease from 57% (16 out of 28) in year one.
- Nearly all of the final year respondents rated the quality of ORR help received as either good or excellent (92%, 11 out of 12). This is nearly as high as year two, and higher than baseline and year one.

- As with previous surveys, between 3 to 5 visits was the most commonly reported number of annual visits received from an ORR inspector by final year respondents.
- Also similar to previous surveys, visits by ORR inspectors were most likely to last either 1 to 2 hours (40%, 6 out of 15) or 3 to 5 hours (40%, 6 out of 15). Interestingly, there has also been an increase in visits lasting 6 to 8 hours (20%, 3 out of 15) in the final year compared to the baseline and year one (around 5%).
- As with previous surveys, the majority of respondents in the final year (61%, 11 out of 18) reported that the duration of ORR inspector visits were the same under both regulatory regimes (ROGS and Safety Case).

Safety Management System (SMS)

- Around 83% (15 out of 18) of the final year duty holders reported having a SMS in place. This is similar to year two (83%, 19 out of 23), year one (86%, 19 out of 22), and up on the baseline (71%, 12 out of 17).
- Of the three individuals in the final year who did not feel they had a ROGS compliant SMS in place, one did not answer the question, one said they were 'not sure' and one said 'no'. Of the two who answered 'no' or 'not sure', one was a trade union, the other a supplier of signalling equipment. Neither of which would be expected to have a ROGS compliant SMS in place.
- Most final year respondents claimed maintaining a SMS under ROGS cost between £10k to £49.9k per annum. Just over half of the final year respondents (53%, 8 out of 15) stated the costs of maintaining a SMS were similar to the costs of maintaining a safety case. In fact, across previous surveys, the majority felt costs have been similar between the two regimes.
- For final year respondents, the most common challenge in maintaining a SMS was 'communicating the SMS to the organisation' (53%, 8 out of 15), which has steadily grown as a challenge since the baseline (33%, 4 out of 12). Encouragingly 40% (6 out of 15) of the final year respondents indicated 'no challenges' – the highest proportion stating this in any given year and a positive increase from 8% (1 out of 12) at the baseline.
- The majority of the final year respondents (60%, 9 out of 15) indicated SMS under ROGS had not affected safety. This was also reflected across all previous surveys.

Safety verification

- In terms of introducing new / altered infrastructure or rolling stock, in the final year the majority of duty holders had either a SMS change management process (83%, 15 out of 18) or safety verification under ROGS (72%, 13 out of 18) – these results were very similar to years one and two.
- Around 10 to 49 days per annum was the most commonly reported amount of time spent in undertaking safety verification. A further three respondents reported between 100 to 250 days. These results were also generally in line with previous surveys.

- Only two respondents in year two were able to provide a cost estimation for undertaking safety verification per year. Both reported a cost between £1k to £9.9k.
- 'Identifying / appointing an ICP' and 'Knowing when to apply safety verification' were the most common challenges cited by the final year respondents (53%, 8 out of 15). The first challenge appears to have gradually declined from a baseline of 67% (6 out of 9).
- 'Understanding the requirements' has become less of a challenge from year two (58%, 11 out of 19) to the final year (40%, 6 out of 15).
- The majority of the final year responses (71%, 10 out of 14) indicated that safety has not changed because of safety verification, a finding which has increased steadily from the baseline of 36% (4 out of 11). However, a few of the final year respondents (14%, 2 out of 14) and year two respondents reported that safety has been hindered, whereas at baseline and year one, no one stated this to be the case.

Safety certification

- There has been an increase in the number of respondents who reported their organisation had completed each stage of the safety certification process in year one, two and the final survey, when compared to the baseline.
- Respondents across all four surveys reported a mixed number of days spent on initial applications for safety certification.
- When asked to compare the time spent in the ROGS certification process against Railway Safety Case applications, half of the final year respondents (50%, 5 out of 10) indicated that safety certification had taken less time, which is similar to previous surveys.
- A limited number of the final year respondents were able to estimate the cost involved in achieving safety certification. Three out of four respondents indicated a cost of between £1k and £9.9k for initial applications.
- Comparing the cost of ROGS safety certification against Railway Safety Case applications, the majority (55%, 6 out of 11) of final year respondents confirmed that the costs were less under safety certification, which was similar to previous surveys.
- 'Time and / or resource pressures' was the most common challenge cited by final year respondents (55%, 6 out of 11), which is consistent with previous surveys. An area to focus some attention is 'understanding the requirements' which was expressed as a challenge by 45% (5 out of 11) of final year respondents, which had increased year-on-year from a low of 14% (1 out of 7) at the baseline.
- The majority of final year respondents (67%, 8 out of 12) indicated that there had been 'no change' to safety due to safety certification under ROGS. This is consistent with years one and two.

Safety authorisation

- Half of all the final year duty holders (50%, 9 out of 18) had safety authorisation under ROGS. This is similar to years one and two, but higher than the baseline (29%, 5 out of 17).
- A total of 10 final year respondents reported that they had completed all stages of the safety authorisation process, somewhat similar to year two. At the baseline this was much lower, and year one showed more organisations had completed the earlier stages.
- Positively, only 10% of the final year respondents (1 out of 10) indicated that improvements could be made to the safety authorisation application process. A further 50% (5 out of 10) of responses confirmed that nothing more could be done to improve the process, up from an original 17% (1 out of 6) at the baseline.
- Initial application costs for safety authorisation were reported in the final year to range from £1.7k to £25k. This appears to be down on the maximum values quoted of £50k in years one and two, and £144k at baseline. This possibly indicates that costs have reduced over the years. Costs incurred for amending applications quoted by one final year respondent were £800, similar to year two, but much lower than year one and baseline.
- Most of the final year respondents (56%, 5 out of 9) declared that safety authorisation application costs have been less under ROGS than Railway Safety Case applications. In previous surveys, the dominant view has been that costs have been the same under both regimes.
- The majority of the final year respondents (60%, 6 out of 10) confirmed that it has taken less time to undertake safety authorisation applications than Railway Safety Case applications, which is an increase compared with year one at 33% (4 out of 12).
- The most common challenge reported by the final year respondents in acquiring safety authorisation was 'understanding the requirements' (67%, 6 out of 9), which has steadily increased from 20% at the baseline and year one. This suggests that this area might be an area for development.
- The majority of final year respondents (70%, 7 out of 10) cited that safety authorisation had not affected safety. This trend was also evident across previous surveys.

Risk assessment

- Many final year respondents (33%, 6 out of 18) indicated that there have been no challenges encountered in adapting existing risk assessment arrangements to meet the requirements of Regulation 19, which is positive albeit down from a peak of 52% (12 out of 23) in year two.
- The majority of respondents in the final year (88%, 14 out of 16) indicated that there has been no change to safety as a result of changes to risk assessment. This is consistent with previous surveys.

Annual safety report

- The majority of final year respondents (72%, 13 out of 18) reported needing to compile and submit an annual safety report under ROGS. This is largely in line with previous surveys.
- The majority of final year respondents indicated that the number of days spent submitting an annual safety report amounted to less than 10 days (9 out of 12 respondents) and in fact, more typically took between 1 to 5 days in total.
- Three final year respondents estimated the cost to compile an annual safety report ranged from £300 to £4k. Across previous surveys, the costs are similar with a reported minimum of £250 and a maximum of £6k.
- The most commonly reported challenge for the final year respondents was 'gathering and compiling the information' (46%, 6 out of 13). This has consistently been one of the top three most commonly cited challenges across previous surveys. Most encouragingly, 38% (5 out of 13) of the final year respondents confirmed there were 'no challenges'; the largest proportion of this response across all four surveys.
- The majority of final year respondents (64%, 9 out of 14) also indicated that annual safety reports had not affected safety. Across previous surveys, the majority view was the same. Encouragingly, 21% (3 out of 14) of respondents said that safety had improved as a result of annual safety reports, the highest proportion with this view across all four surveys.

Duty of co-operation

- The most commonly cited challenge for the final year respondents was 'organisational / cultural barriers' (39%, 7 out of 18). In previous surveys, this challenge was less evident. 'Other duty holders not cooperating' was the second most common challenge (28%, 5 out of 18) in the final year. Encouragingly, 33% (6 out of 18) of the final year respondents felt that they have not encountered any challenges.
- The majority of final year respondents felt there had been no change to safety as a result of the introduction of the duty of co-operation. This was also the most common view in previous surveys. Encouragingly, 38% (6 out of 16) of the final year respondents indicated that safety had improved, which was an increase from 10% (2 out of 20) in year one.

Safety critical work

- Encouragingly, when asked about the challenges encountered in meeting the safety critical work duty, the most common response in the final year was 'no challenges' (33%, 6 out of 18). Aside from this, 'training staff and managers' and 'understanding the requirements' were the most commonly cited challenges.
- The majority of final year respondents (88%, 14 out of 16) indicated that there had been 'no change' in safety as a result of the safety critical work duty. This is a marked increase compared with the baseline of 38% (6 out of 16). In balance however, those who said safety had improved did reduce from a high at the baseline (38%, 6 out of 16) to a low by the final year (13%, 2 out of 16).

INDUSTRY INFLUENCE NETWORK (IN) WORKSHOPS

In order to develop a qualitative profile of safety in the rail industry two Influence Network (IN) workshops were undertaken with a representative sample of key rail industry stakeholders. The first 'baseline' workshop was held in September 2007 and the second 'final' workshop was held in December 2009. This enabled an assessment of any changes occurring across the three-year period. The workshops involved examining a series of possible factors which may be influencing safety in the rail industry, in terms of their current quality (or standard), as well as the importance of their influence. The workshops enabled an identification of where the key potential risk areas were, based on qualitative feedback from participants, as well as an understanding of why these were risk areas. A representative range of stakeholders from throughout the rail industry attended both the baseline and final IN workshops.

Quality ratings

When comparing the quality ratings assigned during the baseline workshop with up-to-date ratings gathered during the final workshop, the key changes were as follows:

- **Direct level factors** – Four out of 14 Direct level factors showed an improvement in the final workshop (Communications, Information/Advice, Availability of Suitable Workers and Work Environment), however, the workshop group did not attribute these improvements to ROGS. However, with regard to Communications, the workshop group did say that ROGS had given the industry an “appropriate framework” to improve communications. The factor Motivation showed a decrease in its rating and this was felt to be largely (although not exclusively) due to the economic downturn. The remaining nine Direct level factors showed no significant change.
- **Organisational level factors** – Two out of 12 Organisational level factors showed an improvement in the final workshop (Procedures and Communications) but these improvements were not attributed to ROGS. Three factors showed a decrease in their ratings (Planning, Incident Management and Feedback and Equipment Purchasing) and the remaining seven factors showed no significant change.
- **Strategy level factors** – Two out of eight Strategy level factors showed an improvement in the final workshop (Safety Management and Workforce Involvement) and it may be said that ROGS contributed in some small way to the improvement in the factor Safety Management as it was felt that industry generally had a better perception of safety management now. Two factors showed a decrease in ratings (Organisational Structure and Interface Management); three factors showed no significant change; and the factor Profitability was not rated in the final workshop (because this time the group felt that the industry was highly regulated economically and therefore a rating was inappropriate) so a comparison could not be drawn.
- **Environmental level factors** – Two out of five factors showed an improvement in the final workshop (Political Influence and ORR). In general, workshop participants positive comments about ORR appeared to contribute to the increased rating assigned to the factor ORR. The three remaining factors showed no significant change.

Importance weightings

When comparing the importance weightings from the baseline measure with up-to-date weightings derived from the final workshop, there were some notable changes, as follows:

- **Direct level factors** – Risk Perception, Fatigue, and Pressure had a ‘medium’ weighting at baseline, but are now seen to be of ‘high’ importance. Inspection & Maintenance and Communications have declined in importance from ‘high’ at baseline to ‘medium-high’. Similarly, Motivation appeared to have lessened in importance from ‘high’ to a ‘medium’ weighting.
- **Organisational level factors** – Recruitment & Selection had increased in importance from a ‘medium-high’ weighting at baseline to a ‘high’ weighting. Planning, Management / Supervision, and Communication have both declined in importance from ‘high’ to ‘medium-high’ weightings. Similarly, Procedures had declined from a ‘high’ to ‘medium’ weighting.
- **Strategy level factors** – Ownership & Control was originally of ‘medium-high’ importance, but was considered of ‘high’ importance. Workforce Involvement had declined in importance from a ‘high’ weighting at baseline to a ‘medium-high’ weighting.
- **Environmental level factors** – ORR was perceived to be more influential than at the baseline with its importance weighting having grown from ‘medium’ to ‘high’. The market showed the opposite trend where the original ‘high’ weighting had declined to ‘medium-low’ importance.

DATA TRIANGULATION AND MAPPING TO ROGS OBJECTIVES

The most appropriate data collected across the three-year project period was mapped against each of the ROGS objectives in order to assess the extent to which the original ROGS objectives had been achieved. The data mapped was primarily taken from the industry surveys and Influence Network workshops.

ROGS Objective 1

1a - transfer the mainline rail industry from a system of railway safety cases to a system of safety certification and authorisation

- **Based on the limited outcome indicator data available, this objective appeared to have been achieved.** The number of safety certification and authorisation applications received, and approved, by ORR were higher than the number of mainline rail organisations in existence around 2007. Furthermore, survey data indicated steady progress amongst survey respondents in successfully completing the safety certification and authorisation process.

1b - ensure that the UK can respond to Common Safety Targets (CSTs) in the future, to be achieved through Common Safety Methods set by the European Rail Agency

- Based on the limited outcome indicator data available, it appeared that the UK was getting ready to be able to respond to CSTs in the future. In 2007, ORR found that although rail organisations were still predominantly reporting on their own company safety targets in annual safety reports, there was evidence of some Common Safety Indicators (CSI's) being reported on. Therefore, this would suggest that come 2009 when CSTs are fully introduced, the industry would have further developed their

reporting of CSI's and would be ready to respond to the CSTs. **This would therefore indicate that this objective had been achieved.**

ROGS Objective 2

2a. reduce the number of railway operators that have to seek formal permission from the safety regulator to work on the railway

- It was not possible to obtain definitive data on this objective and therefore no firm conclusions were drawn.

2b - produce a set of minimum requirements for a safety management system as the basis of safety certification / authorisation that is more streamlined, better targeted, less bureaucratic, and quicker for duty holders

- Data from the IN workshops indicated that industry felt the quality of safety management in the rail industry was high and by the final workshop, participants commented on how ROGS had provided a flexible framework within which to design a SMS.
- Across all three surveys only limited cost data was available (both in terms of time and direct financial expenditure). In order to make direct comparisons an average time spent on SMS maintenance per year, per organisation, was calculated. The average days spent per year in the baseline was 156, in the year one survey it reduced to 95, in year two it went back up to 170 and in the final year it went down to its lowest level of 77 days. Most encouragingly, the majority of respondents in the final year (53%) who had a SMS felt that the maintenance costs have been similar to costs associated with maintaining a safety case. This trend was the same across all four surveys. Suggesting that the SMS under ROGS is certainly not more expensive or time consuming than the previous regime.
- In terms of challenges faced in maintaining an SMS under ROGS, communicating the SMS to the rest of the organisation was cited as a key challenge in almost all of the industry surveys. Time and / or resource pressures were also significant throughout the surveys. These challenges suggest that perhaps SMS under ROGS is not necessarily quicker for duty holders.
- The majority of respondents across all four surveys indicated that SMS under ROGS had not caused any changes to safety. This is a positive finding considering one aspect of the overarching aims of ROGS is to maintain safety at a constant level during this period of change.
- **Overall it appeared that this objective was starting to be achieved.**

2c - change the distribution of HMRI inspector resource from the assessment of safety cases, and redirect it towards checking by inspection 'on the ground' that operators are properly controlling the risks arising from their operations

- Outcome data on the amount of time booked by HMRI inspectors to assessing safety cases and conducting site visits was to be obtained from ORR, but unfortunately it was not possible to obtain this data. However, survey data indicated an increase in HMRI time spent on site visits and potentially an increase in the number of site visits being conducted, **suggesting this objective may be starting to be met.**

- In terms of the challenges faced by operators when conducting risk assessment under ROGS (Regulation 19), the final two surveys highlighted that the largest proportion of organisations responding faced no challenges. This suggests it would be unlikely that too much inspector time would be utilised answering risk assessment queries.

ROGS Objective 3

3a - transport operators and infrastructure managers need to work together to ensure system safety; and

3b - transport operators should identify appropriate forms of co-operation that complement the measures they are taking to comply with their own safety duties

- There was some evidence 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. Most duty holders actually confirmed that their pre-ROGS procedures for interfacing were still suitable under ROGS or only required minor changes. A large proportion of duty holders surveyed also confirmed that they had been through the process of identifying where most interfacing already takes place.
- The majority of duty holders across all four surveys confirmed the duty of co-operation had not impacted on safety, which is expected considering other evidence suggests systems were already largely in place prior to ROGS coming into force and therefore no major change was required which may impact on safety.
- Challenges that were encountered in meeting the duty included duty holders not co-operating, cultural/organisational barriers and time and/or resource pressures.
- Finally, attendees at the IN workshops rated the standard of interface management in the rail industry as good, and did not feel that the activity itself had a significant influence on safety.
- **Overall it appeared this objective was being met.**

ROGS Objective 4

4a - for the parts of the railway industry outside the mainline railway (i.e. the non-mainline railway including London Underground Ltd (LUL), tramways, heritage railways), remove the existing requirement for formal approval by the safety regulator before the introduction of new or altered works, plant or equipment

- Although it was not possible to obtain sufficient data on non-mainline railway only, across all surveys, the majority of respondents confirmed they had a process in place for introducing new or altered works, plant or equipment. In terms of setting up a system for deciding when safety verification should be applied, around half of stakeholders responding in the baseline and year one surveys only required minor changes to their existing processes for doing so, around a third required major changes and a tenth required a whole new process.
- Stakeholders found knowing when to apply safety verification a challenge, although this challenge decreased over the four surveys.

- In terms of ROGS meeting this challenge, **the Regulations have removed the need for formal approval by ORR, so this objective has been achieved.** Evidence collected during this project suggests that rail organisations do have processes in place for safety verification even if they have found knowing when to apply it challenging.

4b - replace this requirement with a more targeted requirement on duty holders to obtain safety verification from an independent competent person

- Identifying and appointing an independent competent person (ICP) was reported as a challenge across all four surveys, but interestingly the highest proportion cited this as a challenge in the final survey, suggesting this challenge has become more significant since ROGS was introduced. In terms of having available suitable human resources, feedback was mixed during both IN workshops, but in general the standard of resourcing was rated reasonably highly.
- **As ROGS have required operators to appoint an ICP, then it can be said that this objective has been achieved.**

ROGS Objective 5

5a - change the definition of 'safety critical work' from broad job titles to the actual tasks that are safety critical to the safety of the railway

- At the baseline measure 75% of respondents said they had identified what work was 'safety critical' in the organisation as part of making ROGS related changes. In the year one survey the majority of respondents (62%) also confirmed they identified safety critical work. **The evidence suggested that this objective had been achieved.**

5b - safety critical tasks must be carried out by a person assessed as being competent and fit for work

- Although it was acknowledged during both workshops that levels of competency did vary across the industry, in general competency was rated as being of a high standard. At the heart of competency in the industry there is also a points based competency management system. In terms of the availability of suitable human resources, although feedback from the workshops suggested there was variability across different parts of the industry, generally availability was rated as being of a high standard.
- Worker fatigue in the rail industry was acknowledged to still be an issue (particularly due to the 24/7 nature of the industry) but even with effort put into roster and schedule design, it was still a difficult issue to completely resolve. Physical fitness was generally perceived to be reasonably good across the industry.
- The baseline survey and year one survey also indicated that the majority of respondents (around 70% in both surveys) explicitly identify workers undertaking safety critical work and those managing them.
- The evidence suggests that safety critical tasks have been identified and there are suitably fit and competent workers available to undertake them. **This suggested that this objective had been achieved.**

5c - remove the requirement for safety critical workers to carry a formal means of identification

- It was not possible to obtain definitive data on this objective and therefore no firm conclusions have been drawn.

5d - 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 from a wide number of factors, such as the pattern of working hours and roster design

- As stated above, worker fatigue was acknowledged to still be an issue, even with increased effort put into roster and schedule design. Physical fitness was generally perceived to be reasonably good across the industry.
- **Based on the evidence this objective did not seem to have been fully addressed at this time**, but this is something that is being continually improved upon and it is also an issue that industry is very aware of.

COST ANALYSIS

One of the original objectives of this final evaluation report was to conduct a full cost-benefit analysis. However, in order to make a valid estimation of the cost to industry to comply with ROGS, robust cost data was required. Cost data was requested via the industry surveys, however, only minimal data was provided and it was therefore not possible to make a valid estimation of industry implementation costs. However, in the absence of robust cost data, any cost-benefit analysis would be both invalid and more seriously, misleading, both for the industry and ORR policy makers. As an alternative, the minimal cost data that was provided by some duty holders was collated and cleansed. In addition, the qualitative feedback provided by stakeholders in the survey on whether or not ROGS implementation costs had exceeded, been the same as, or less than the costs of complying with the previous safety case regime were also revisited, where appropriate. The findings were as follows:

- In terms of SMS, Metro rail organisations reported the highest SMS development cost, as well as yearly maintenance costs. However, Metro maintenance costs were comparable with maintenance costs across all duty holder types (that provided data).
- Survey data indicated that SMS maintenance costs were largely similar to safety case maintenance costs, suggesting this cost has not been an increased financial burden to industry.
- Metro organisations reported the highest hard cost (in GBPs) incurred for undertaking safety verification duties each year, although in terms of time spent, the infrastructure manager reported the highest number of days closely followed by a tramway organisation.
- Metro organisations also reported the highest safety certification application cost (in GBPs) and maintenance cost. A FOC organisation also reported a high initial application cost, followed by a range of TOC organisations.
- In terms of feedback from the four industry surveys, the most common response was always that both the cost and time spent applying for safety certification has

been less than the cost and time spent applying for Railway Safety Case applications. This suggests that not only have ROGS not been a burden, but they have actually been more cost effective than the previous regime.

- Metro organisations once again reported the highest costs for safety authorisation initial application, although the Infrastructure manager quoted the highest number of days spent. Safety authorisation amendment costs showed the same pattern across the duty holder types (that provided data).
- Encouragingly additional survey feedback indicated the cost of applying for safety authorisation has been the same as costs incurred under the safety case regime and across the four surveys, more and more respondents felt that time spent on safety authorisation application was less than time spent on safety cases. As with safety certification, this suggests ROGS had been a more cost effective regulatory regime.
- Very few costs were obtained for complying with risk assessment under Regulation 19 of ROGS; those that were obtained highlighted a high cost from a Metro organisation and a high number of days spent from a light rail organisation.
- The average number of days spent on preparing and submitting annual safety reports ranged from three (an OTM) to 23 (an Infrastructure manager).

CONCLUSIONS AND RECOMMENDATIONS

Did ROGS achieve their original aims and objectives?

The performance data collected from the industry surveys, IN workshops and some anecdotal data obtained from ORR was mapped against each one of the ROGS original aims and objectives. A conclusion was then drawn regarding whether or not the objective appeared to have been met or not. Where there was sufficient data to make a reasoned judgement, in all but one case it was felt that ROGS had either achieved the original objectives or were on the way to achieving them. The only objective that ROGS was not yet felt to have achieved was:

“5d - 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 from a wide number of factors, such as the pattern of working hours and roster design”

Were ROGS cost effective?

It was not valid to conduct a full cost-benefit analysis due to the limited data collected during the project; any results and conclusions generated would have been misleading and therefore unsafe to base policy decisions upon. Instead, the costs to industry that were provided in some survey returns were collated, presented and discussed in the report. Duty holder types that appeared to incur the highest costs were Metro organisations, light railways and infrastructure managers. In addition to the cost data presented, qualitative feedback from the industry survey was also used to put the cost data in context. It was largely felt by duty holders that the costs they had incurred complying with ROGS had been either the same or less than the costs incurred under the previous safety case regime. This suggested

that ROGS had not been an increased financial burden to industry and in some cases had actually been more cost effective than the previous regime.

Did ROGS bring about any improvements in safety across the industry?

The majority of data on changes to safety brought about by ROGS was obtained via the four industry surveys. Largely the feedback gained was that ROGS had not brought about any changes to safety. More specifically, in terms of the different elements of ROGS (i.e. SMS, safety verification, safety certification, safety authorisation, risk assessment under ROGS, annual safety reports, the duty of co-operation and the safety critical work duty) these were not felt to have changed safety across the industry by the majority of responding stakeholders.

However, encouragingly, in terms of annual safety reports and the duty of co-operation, there was an increasing proportion of respondents also felt that these elements had actually improved safety. There was also a proportion of respondents who felt the safety critical work duty had improved safety, although this proportion did reduce over the four surveys.

All of these findings are extremely encouraging and also directly address the overarching aim of ROGS to:

“Maintain national standards of rail safety in line with EU requirements⁴ and strive for continuous improvement”

The IN workshops also gathered industry insight on where there had been changes in the rail industry risk profile. Although there were a handful of areas where workshop participants felt there had been improvements, most of these areas were felt to have been influenced by wider industry developments such as the recession (i.e. they were confounding factors). However, two areas were felt to have been improved due to the introduction of ROGS. Firstly, frontline communications about safety were said to have improved and workshop participants generally felt that ROGS had some part to play in this improvement as the Regulations had provided industry with an “appropriate framework” to improve communications. Secondly, it was felt that ROGS may have contributed in some small way to the improvement of ‘Safety Management’ as it was felt that industry generally now had a better perception of safety management.

What was learnt in terms of the role of ORR?

The majority of data on the role of ORR was obtained via the four industry surveys. Feedback from industry suggested ORR were responsive when it came to requests for help on implementing ROGS, and the vast majority of survey respondents rated the help received as either ‘good’ or ‘excellent’. Rail organisations typically received an inspector visit between 3 to 5 times per year and they either lasted between 1 to 2 hours or between 3 to 5 hours. However, the duration of the visit did appear to be increasing to between 6 to 8 hours over the four surveys.

At the IN workshops rail industry stakeholders were also asked to comment on the role of ORR. In terms of the most recent workshop, a range of views were provided about ORR, as follows:

- ORR has done well in bringing together economic and safety regulation, although the organisation can sometimes still feel a little bureaucratic

- ORR has provided good guidance, some of which has been tailored specifically to certain types of duty holder
- There have been some “ups and downs” with the regulator, but in general, dealings have been good.
- More explanation still required on the role of the safety representative

Overall final workshop participants gave ORR a better rating than they had for the baseline survey, suggesting ORR have improved since ROGS have been in force.

What more can ORR do to continue to make improvements?

Overall, the findings in this report suggest ROGS have been successful in their first three years of implementation, maintaining safety (and in some areas improving safety) alongside qualitative evidence suggesting that in some areas ROGS may actually be more cost effective than the previous safety case regime. Furthermore, the mapping of performance data against ROGS original objectives suggested the objectives have largely been achieved or are well on their way to being achieved. In terms of ORR’s performance, feedback from stakeholders on ORR was also largely positive. One area where ORR could improve is in the area of the operational data it collects, in order that in the future it can monitor progress in a range of areas more effectively. Operational data should be well organised and readily accessible for ORR policy makers. Finally, a number of specific recommendations for ORR from stakeholders were noted as follows:

- *“Would like them [ORR] to facilitate the sharing of best practice between all TOCs.”*
- *“The industry steering group is still in existence, albeit not currently meeting on any regular basis.”*
- *“More clarity and guidance on ORR expectations during transition from ‘responsible person’ to operator in a tramway context, particularly as the operator may have limited influence on safety by design and construction if brought on at a later stage in the project by the client.”*
- *“Identification of Safety Related or Key Safety Roles and the way in which these should be managed.”*

1. INTRODUCTION

1.1 INTRODUCTION

This report has been prepared by GL Noble Denton (previously known as Noble Denton Consultants) for the Office of Rail Regulation (ORR) and describes a three-year project to monitor and evaluate the performance and impact of the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS).

1.2 BACKGROUND

The Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS) define the safety management regime adopted across all UK rail companies since October 2006. The Office of Rail Regulation (ORR) wanted to establish monitoring and evaluation arrangements for ROGS in order to monitor and evaluate both their performance and their overall impact. In order to conduct this effectively ORR commissioned GL Noble Denton to carry out a project to collect and develop a baseline measure, collect safety, cost and cultural performance indicators over a three-year period, and then analyse this evidence to assess whether ROGS had met their original aims and objectives, as well as being value for money. This report brings together the evidence collected, draws conclusions, and makes recommendations.

1.3 PROJECT OBJECTIVES

The overarching objectives of the three-year monitoring and evaluation project were to:

1. Develop a plan for the monitoring and evaluation of ROGS that enables clear and robust conclusions to be reached, reflecting the impact on all categories of duty holder for each objective of ROGS.
2. Establish a robust baseline making best use of the data already available.
3. Gather data at several points in time in relation to impact, confounding factors and cost.
4. Analyse and evaluate the data to assess the effectiveness of ROGS in terms of value for money.
5. Produce an evaluation report based on the data gathered, drawing out lessons to be learnt and providing conclusions on the effectiveness of ROGS and recommendations in terms of the role of the ORR.

The first three objectives have been addressed and documented in previous monitoring reports and can be viewed at ORR's website. This current report addresses and reports on Objective 4 and Objective 5.

1.4 SCOPE OF REPORT

The project objectives and associated work activities have been addressed throughout this report as follows:

- Section 2 describes the overarching evaluation methodology.
- Section 3 presents the four industry surveys conducted over the three-year project period, designed to collect data on ROGS, safety performance, the cost of ROGS implementation and safety culture.
- Section 4 describes two Influence Network workshops held with key rail industry stakeholders designed to gather a qualitative risk profile of safety in the rail industry.
- Section 5 maps findings from the industry surveys and workshops to the original ROGS objectives in order to assess the extent to which the regulations have met their original aims.
- Section 6 describes the cost analysis undertaken to assess the effectiveness of ROGS with regard to value for money.
- Section 7 presents the final evaluation conclusions and recommendations.
- Section 8 contains the GL Noble Denton report sign-off sheet.
- Section 9 lists the references used in this report.
- Appendix A contains a copy of the four ROGS surveys issued to industry.
- Appendix B contains a copy of the briefing note issued to participants attending the final Influence Network workshop.

2. OVERARCHING EVALUATION METHODOLOGY

2.1 INTRODUCTION

In order to monitor and evaluate the performance and impact of ROGS it was important that the overall evaluation methodology adopted was robust and in line with Government recommended best practice for conducting evaluations. In the absence of a robust approach, ORR would not be able to have full confidence in the evaluation findings. To put this evaluation report in context, this following section briefly outlines the overarching methodology that was adopted across the three-year evaluation period.

2.2 OVERARCHING EVALUATION METHODOLOGY

Figure 1 highlights the overarching methodology implemented for this monitoring and evaluation project. The diagram illustrates how the project was based on establishing the ultimate and subsidiary objectives of ROGS at the outset of the project and then collecting a range of evidence over a three-year period to help assess whether or not the Regulations had achieved their intended objectives.

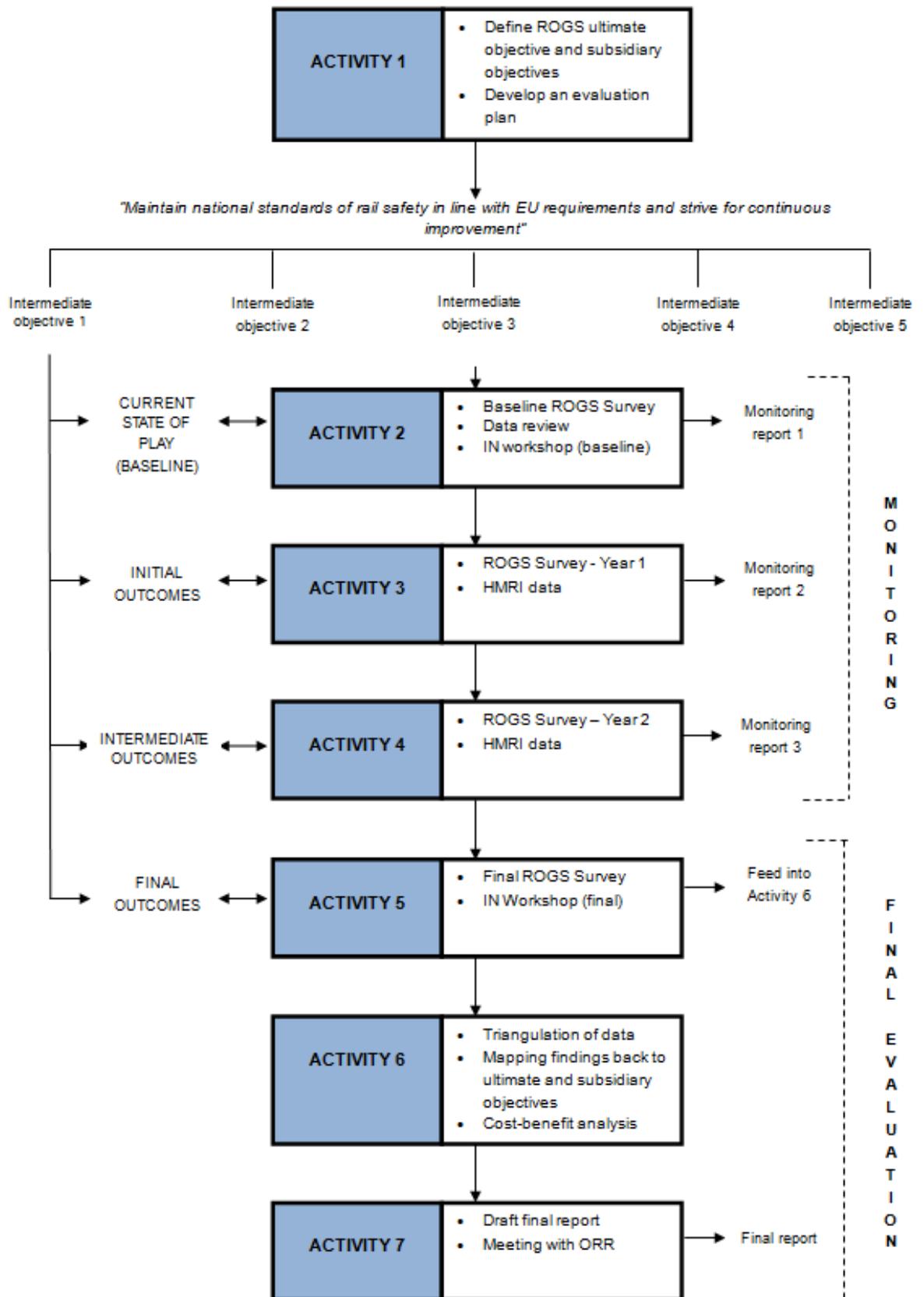


Figure 1 Overarching evaluation methodology

The activities outlined in Figure 1 were conducted over a three-year period. The project began by outlining the ROGS objectives, developing an overarching evaluation plan and collection of a baseline measure (via a review of existing data, an Influence Network workshop and a ROGS survey) (published in 'Monitoring Report 1'¹). This was followed by a second ROGS survey (Year 1) to gather further safety performance measures (initial outcomes) from a range of rail industry stakeholders (published in 'Monitoring Report 2'²) and this was followed by a third ROGS survey (Year 2) to gather more performance measures (intermediate outcomes) from industry (published in 'Monitoring Report 3'³). During this time GL Noble Denton also endeavoured to collect operational data from ORR and HMRI. The last ROGS survey to collect final outcome indicators (Year 3) was issued at the end of 2009 in addition to conducting a second and final Influence Network workshop.

The data collection time points were as follows:

- **Baseline measure** - review of existing information from 2006 and primary research (including baseline ROGS survey and baseline Influence Network workshop) conducted during August to September 2007.
- **Initial outcomes measure** – ROGS survey issued early 2008 (Year 1)
- **Intermediate outcomes measure** – ROGS survey issued early 2009 (Year 2)
- **Final outcomes measure** - ROGS survey issued end of 2009 (Final) and final Influence Network workshop

Analysis was then conducted to triangulate the evidence collected over the project period and map the findings against the ROGS original aims and objectives to assess to what extent they had been achieved. An analysis of the industry cost data collected was also conducted to assess the effectiveness of ROGS in terms of value for money.

2.3 KEY ASPECTS OF THE EVALUATION

2.3.1 ROGS ultimate and intermediate objectives

To be able to develop a comprehensive evaluation plan detailing outcome measures and associated indicator data, a clear set of ROGS objectives were set down. To ensure these objectives were based on the original aims for ROGS, related literature was reviewed. These objectives defined the outcome measures and thus shaped the overall evaluation project. The following set of objectives were identified by GL Noble Denton and agreed by ORR:

The overarching aim of the Railway Safety Directive (RSD) is to:

Meet the EU objective to improve the competitiveness of rail as a transport mode in order that it can compete with other transport modes (and in turn will reduce the environmental impact of transport)^{4, 5} and to be part of a single European railway⁴

The **ultimate objective** of ROGS is to:

Maintain national standards of rail safety in line with EU requirements⁴ and strive for continuous improvement

This ultimate objective translates into the following five **intermediate objectives** and **subsidiary intermediate objectives** for ROGS:

1. Implement a large part of the safety management provisions of the EC Railway Safety Directive (RSD) (2004/49/EC), which is intended to harmonise the approach to regulating railway safety across the European Union (EU)^{6,4}. This will include having a common approach to safety across the EU covering both passenger and worker safety⁴.
 - 1a. transfer the mainline rail industry from a system of railway safety cases to a system of safety certification and authorisation⁴.
 - 1b. ensure that the UK can respond to Common Safety Targets (CSTs) in the future, to be achieved through Common Safety Methods set by the European Rail Agency⁴.
2. Simplify domestic UK rail safety Regulatory structure⁵ by replacing three sets of regulations with one.
 - 2a. reduce the number of railway operators that have to seek formal permission from the safety regulator to work on the railway⁴
 - 2b. produce a set of minimum requirements for a safety management system as the basis of safety certification / authorisation that is more streamlined, better targeted, less bureaucratic, and quicker for duty holders⁴
 - 2c. change the distribution of HMRI inspector resource from the assessment of safety cases, and redirect it towards checking by inspection 'on the ground' that operators are properly controlling the risks arising from their operations⁴
3. Place a duty on operator companies and infrastructure managers to co-operate and ensure that the interface (in its widest sense) is being managed effectively to ensure system safety⁷.
 - 3a. transport operators and infrastructure managers need to work together to ensure system safety⁷

- 3b. transport operators should identify appropriate forms of co-operation that complement the measures they are taking to comply with their own safety duties⁷
4. Extend broadly similar requirements to railways not covered by the RSD (“non-mainline railways”), as well as to some other guided transport systems⁶.
- 4a. for the parts of the railway industry outside the mainline railway (i.e. the non-mainline railway including London Underground Ltd (LUL), tramways, heritage railways), remove the existing requirement for formal approval by the safety regulator before the introduction of new or altered works, plant or equipment⁴
- 4b. replace this requirement with a more targeted requirement on duty holders to obtain safety verification from an independent competent person⁴
5. Replace the Safety Critical Work Regulations 1994 (SCWR) and implement requirements on those carrying out all types of safety critical work. Under ROGS the legal scope has increased as a wider range of work is now covered.
- 5a. change the definition of ‘safety critical work’ from broad job titles to the actual tasks that are safety critical to the safety of the railway⁴
- 5b. safety critical tasks must be carried out by a person assessed as being competent and fit for work⁷
- 5c. remove the requirement for safety critical workers to carry a formal means of identification⁴
- 5d. 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 from a wide number of factors, such as the pattern of working hours and roster design.

2.3.2 Linking outcome measures to the objectives of the ROGS

The objectives outlined in the section above formed the basis for the development of the overarching monitoring and evaluation plan. Each objective spawned a set of outcome measures. These outcome measures were items that we would expect to see occur and / or change if ROGS were achieving their overall aims and objectives. For each outcome measure, data was therefore required, in order to assess the extent to which the ROGS objectives had been achieved. This approach was used successfully in the evaluation of the Railway (Safety Case) Regulations 2000 (RSCR), and is illustrated in Figure 2.

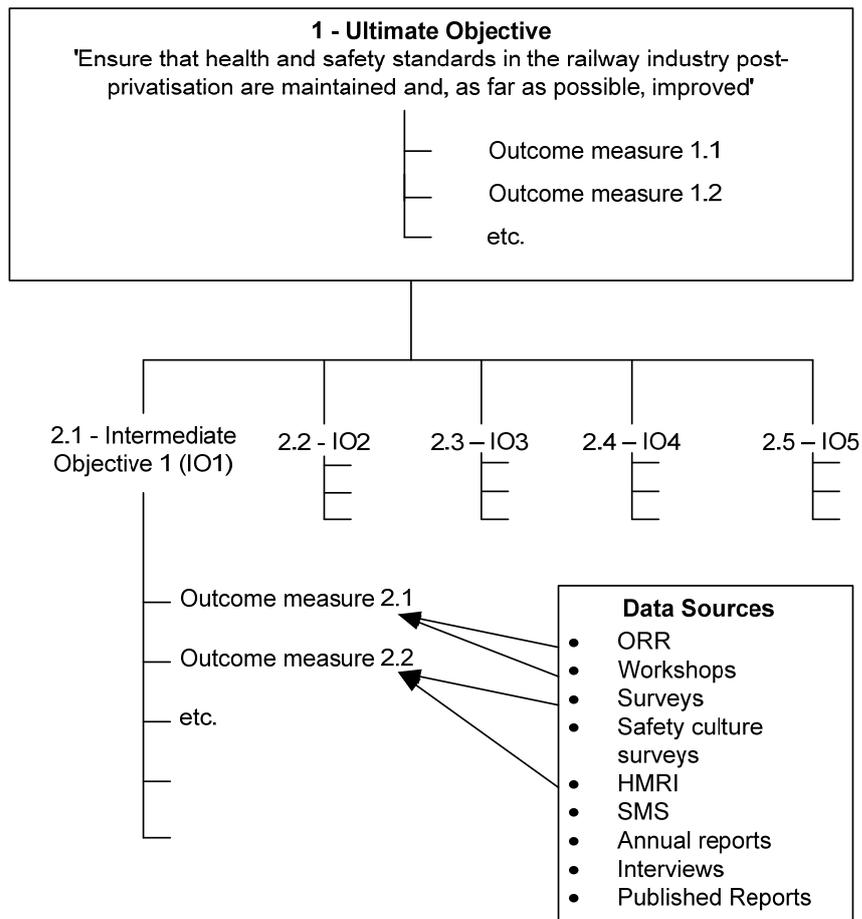


Figure 2 Linking outcome measures to objectives

Figure 2 highlights how for each objective (both the ultimate objective and subsidiary objectives) there are a series of outcome measures. Data to determine whether outcome measures (and ultimately objectives) have been achieved needs to be varied and wide ranging (e.g. workshops, surveys, published reports etc.).

Best practice in evaluation, as defined by The Treasury, requires outcome measures to be:

- Specific
- Measurable
- Achievable
- Relevant
- Time-bound

Whilst a wide range of outcome measures may be identified, it is good practice to limit the number of outcome measures for each objective to around two or three.

Furthermore, the impact of any intervention (including ROGS) will not be immediate and therefore outcome measures will change over time. The ROGS evaluation

methodology was therefore designed (see Figure 1) to collect and assess data at the following impact stages:

- Baseline measure
- Initial outcomes
- Intermediate outcomes
- Final outcomes

2.3.3 Evaluation plan

In order that the project collected the appropriate outcome indicator data from a range of sources (to allow for later triangulation of findings) an evaluation plan was developed to guide the information gathering activities. This plan is presented in Table 1 and refers to the ROGS intermediate objectives and subsidiary intermediate objectives outlined in Section 2.3.1. Next to each set of intermediate objectives, the table indicates where information was sought to help assess the extent to which objectives had been achieved.

Table 1 Overarching monitoring and evaluation plan

Ultimate objective		Data source					
<i>“Maintain national standards of rail safety in line with EU requirements and strive for continuous improvement only where reasonably practicable”</i>							
Intermediate objective	Subsidiary intermediate objectives	HMRI / ORR data	RSSB Annual Safety Performance Report	Cost data (existing RSCR and new ROGS)	ROGS specific survey	Safety culture survey	Influence Network Workshop
1.	1a.	✓	-	-	✓	-	-
	1b.	✓	✓	-	-	-	-
2.	2a.	✓	-	-	✓	-	-
	2b.	✓	-	✓	✓	-	✓
	2c.	✓	-	-	✓	-	✓
3.	3a.	-	-	-	✓	-	✓
	3b.	-	-	-	✓	-	✓
4.	4a.	✓	-	-	✓	-	✓
	4b.	-	-	-	✓	-	✓

Ultimate objective		Data source					
"Maintain national standards of rail safety in line with EU requirements and strive for continuous improvement only where reasonably practicable"							
Intermediate objective	Subsidiary intermediate objectives	HMRI / ORR data	RSSB Annual Safety Performance Report	Cost data (existing RSCR and new ROGS)	ROGS specific survey	Safety culture survey	Influence Network Workshop
5.	5a.	-	-	-	✓	-	✓
	5b.	-	-	-	✓	✓	✓
	5c.	✓	-	✓	✓	-	-
	5d.	-	-	-	✓	-	✓

Key:

- ✓ = indicator data should be obtained from this source
- = indicator data unlikely to be obtained from this source

Table 1 highlights a range of data sources that were explored during this monitoring and evaluation project. The largest quantity of data was obtained from the regular ROGS industry survey (which contained a set of safety culture and cost questions) and the two Influence Network industry workshops held (see Section 2.2). Both the surveys and workshops involved key rail industry stakeholders. Obtaining HMRI and ORR operational data proved more challenging.

2.3.4 Analysis of the data collected

2.3.4.1 Monitoring

During the three-year project three 'Monitoring Reports' were produced. Each report contained the data collected at that point in time in order to assess the extent to which ROGS were meeting their original aims and objectives. The first report comprised the baseline measure and contained data not only from the first industry survey and Influence Network workshop, but also presented a review of existing safety and cost data. The second and third monitoring reports primarily contained the results from the industry surveys and mapped the findings against the ROGS objectives and outcome measures in order to assess the extent to which ROGS were achieving their aims.

2.3.4.2 Final evaluation

The final evaluation report brings together data from the previous reports, as well as data from the final ROGS survey and final Influence Network Workshop. This data is then triangulated and mapped against the original ROGS objectives in order to assess the extent to which ROGS have met their original aims. Consideration is also given to the costs incurred by industry and the overall effectiveness of ROGS.

3. INDUSTRY SURVEYS

3.1 INTRODUCTION

The following section presents findings from all four industry ROGS surveys conducted across the three-year project period. The results from each survey are presented side-by-side in order to facilitate direct comparison and identify trends and changes over time.

3.2 SURVEY METHODOLOGY

3.2.1 Survey aim

The overarching aim of the survey was to gather data that would help to indicate the extent to which the ROGS objectives had been achieved. Section 2.3.3 presents the evaluation plan and details how data from the survey will be mapped against particular ROGS objectives in order to assess progress.

3.2.2 Survey structure and contents

An overarching survey structure containing a core set of questions was developed by GL Noble Denton in conjunction with ORR. These core questions were then used in each survey issued to industry to allow for direct comparison over time. However, there were some small changes to the survey in later years, to take into account the changes that had occurred in industry and the progression in the uptake of ROGS. These changes are highlighted as appropriate in the survey findings (see Section 3.3).

The survey consisted of two main parts. The first part was completed by everyone (i.e. duty holders and non-duty holders) and the second part was completed by duty holders only. More specifically these two parts consisted of the following sections:

Part 1 – To be completed by everyone

- **Organisational details** – this section was confidential to GL Noble Denton only and enabled respondents to be contacted again if necessary
- **Awareness and understanding of ROGS** – this section was developed in order to gauge whether the initial outcomes on the impact pathway had been achieved.
- **Indicators of industry safety culture** – this section was designed to gather a snapshot of safety culture from the perspective of health and safety representatives within each participating rail organisation. It was not designed to be a full safety culture study. The safety culture items were selected from the HSE's Safety Climate Tool (HSSCT)⁸ and represented each of the key safety culture factors within this safety culture model.

- **General feedback on ROGS and ORR** – this section provided direct feedback from industry on the performance of ROGS and ORR.
- **Additional comments** – this last section in Part 1 of the survey provided respondents with an opportunity to make any additional comments that they had not already had an opportunity to make.

Part 2 – To be completed by duty holders only

- **Specific duty holder details** – this included questions about annual company turnover, number of employees and passenger kilometres travelled. This data helped to put cost data into context.
- **Implementation of ROGS** – this section asked specific questions in relation to the key elements of ROGS (i.e. safety management systems, safety verification, safety certification, safety authorisation, risk assessment, the annual safety report, duty of co-operation and safety critical work).
- **Additional comments** - this last section in Part 2 of the survey provided respondents with an opportunity to make any additional comments that they had not already had an opportunity to make.

The survey was drafted by GL Noble Denton with input from ORR officials and final approval was given by ORR prior to issuing the survey to industry.

3.2.3 Issuing the survey

The survey was issued to a range of rail industry stakeholders, all of which were advised by ORR. More specifically, the survey was targeted at individuals with a responsibility for safety (e.g. Safety Managers, Supervisors, Safety Representatives etc.).

Four surveys were issued across a period of three years, as follows:

- **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

The survey was issued to industry via email and participants were always given at least one month to respond.

Please see Appendix A for a copy of the four surveys issued to the rail industry.

3.2.4 Collation and analysis of the survey findings

The survey was formatted as an electronic Word response form allowing respondents to either complete the form electronically and email it back, or print the form, complete it in hard copy and then post it back to GL Noble Denton. Forms

completed electronically were automatically imported into an Access database and those completed in hard copy were transferred into electronic forms and then imported into the same database. GL Noble Denton was then able to analyse the responses using its Consultation Response Analysis Tool (see Figure 3 for a diagram of the user interface).

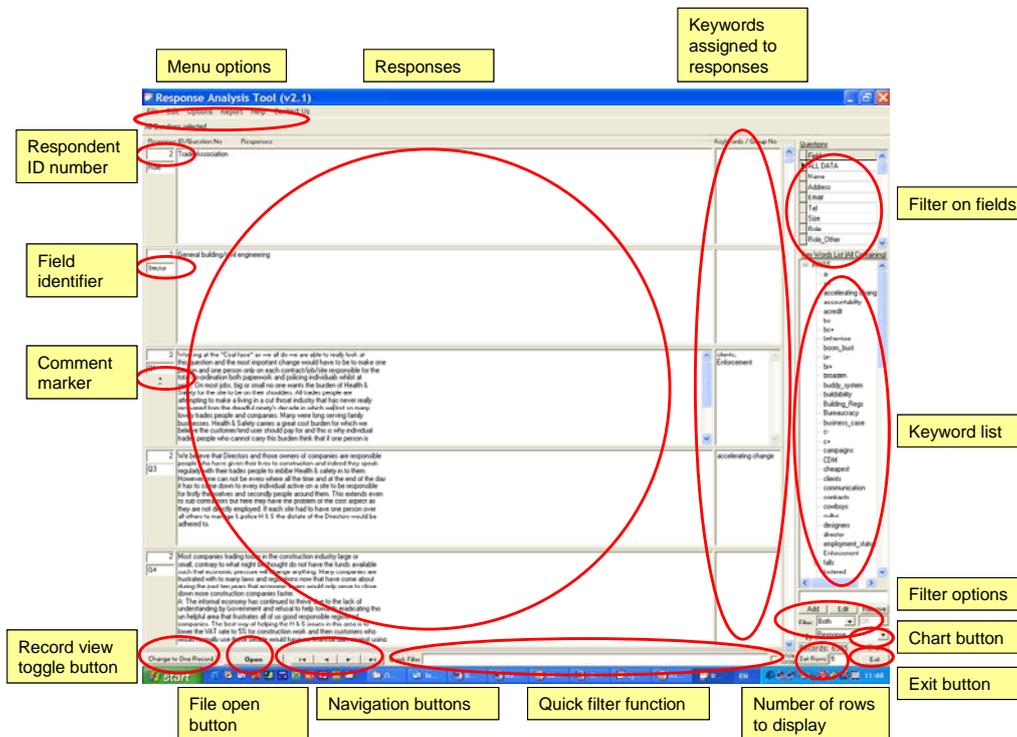


Figure 3 Response Analysis Tool user interface

Figure 3 highlights the Consultation Response Analysis Tool user interface. It illustrates how free text responses to survey questions can be analysed and 'keywords' assigned to highlight key themes running through the answers. The tool also enables more quantitative analysis to be undertaken, where respondents have been asked to answer questions according to a set of predefined responses or on a Likert scale. The tool enabled illustrative graphs to be generated and linked directly to this current report.

3.3 SURVEY PRESENTATION

3.3.1 Presentation of the findings

The findings are divided into two sections in order to aid interpretation. Section 3.5 presents the findings from Part 1 of the survey (completed by everyone) and Section 3.6 presents findings from Part 2 of the survey (completed by duty holders only).

3.3.2 Glossary of terms

The following definitions have been used in this report:

- **Respondents** – where percentages are displayed out of ‘respondents’ (e.g. 60%, 6 out of 10 respondents) this means that this is a percentage of the total number of people responding to that question.
- **Responses** – where on some occasions percentages are displayed out of ‘responses’ (e.g. 60% - 6 out of 10 responses) this means that this is a percentage of the total number of responses given to that question (i.e. 4 people may have provided a total of 10 responses).
- **Majority** – used when the number of respondents or the number of responses answering in a particular way is more than 50% of the total number of respondents or responses answering that question.
- **Large / largest** – used when the number of respondents or the number of responses answering in a particular way is the largest number answering in that way, but is not necessarily more than 50% of the total number of respondents or responses answering that question.

In terms of the types of organisation responding to the survey, they are defined as follows:

- **Duty holder** – refers to a transport operator (or ‘undertaking’) with a duty to comply with some or all of the elements of ROGS. These transport operators include: mainline railways; non-mainline railway and other transport systems operating above 40kph (for example, light rail, metro systems); non-mainline railway and other transport systems operating below 40kph (for example, heritage railway); tramways; some types of sidings; work in engineering possessions; and work in depots.
- **Non-duty holder** – a rail oriented organisation working in the rail industry that does not have a duty to comply with any element of ROGS, for example, passenger groups or trade unions.
- **Organisation** – refers to all organisations operating within the rail industry, whether or not they have a duty to comply with ROGS.
- **Baseline respondents** – refers to people who completed the first ROGS survey, the findings of which constituted the ‘baseline measure’.
- **Year one respondents** – refers to people who completed the second ROGS survey, the findings of which constituted the ‘year one’ survey.
- **Year two respondents** – refers to people who completed the third ROGS survey, the findings of which constituted the ‘year two’ survey.
- **Final year respondents** – refers to people who completed the fourth ROGS survey, the findings of which constituted the ‘final’ survey.

3.3.3 Analyses

In some cases not everyone in the sample answered all of the questions relevant to them. In other cases some respondents answered questions that may not have been relevant to them. Respondents were asked to provide only one answer for some questions and for other questions, respondents were asked to provide as many answers as were relevant.

Where possible, results are expressed as percentages to more accurately allow for direct comparisons between years due to different sample sizes in each survey. However, the frequencies of responses have also been included where appropriate in the body of the text.

In some cases, percentages do not add up to exactly 100% (with a difference of approximately + or – 1%). This is due to rounding.

It should be noted that in conducting any statistical analyses on small sample sizes (as in the case of this research), the opinion of one person could have a larger influence on the overall percentage when compared with much larger sample sizes. Therefore, only large percentage score differences should be deemed meaningful.

3.3.4 Graphical presentation

Line graphs have been used to present the majority of results illustrating the proportion of responses for each survey year, allowing readers to more clearly see any trends over time. Bar charts have also been used for some questions to illustrate the frequency of responses obtained. Some of the findings have also been presented in a tabular format where appropriate.

3.4 SURVEY SAMPLE

3.4.1 Number of respondents

The survey targeted organisations in the rail industry. Individuals with a responsibility for safety (such as safety managers, supervisors and safety representatives, etc.) were sent the survey to complete. Four surveys were issued over three years. Numbers of respondents to each survey are shown in Table 2.

Table 2 Number of respondents

Survey 'year'	Number of respondents		
	No. of surveys issued	Respondents (response rate in brackets)	Duty holders (% of sample in brackets)
Baseline (September 2007)	34	26 (76%)	17 (65%)
Year one (May 2008)	93	28 (30%)	22 (79%)
Year two (February 2009)	89	27 (31%)	23 (85%)
Final (September 2009)	80	23 (29%)	18 (78%)

Table 2 highlights that the average number of survey respondents was 26. Even when the survey was issued to more organisations in the last three years, this did not significantly increase the number of respondents. The final year had the lowest number of respondents (23), which may be due to 'consultation fatigue' in the rail industry.

3.4.2 Types of respondent

The specific types of organisation that participated in each of the four surveys are reflected in Figure 4.

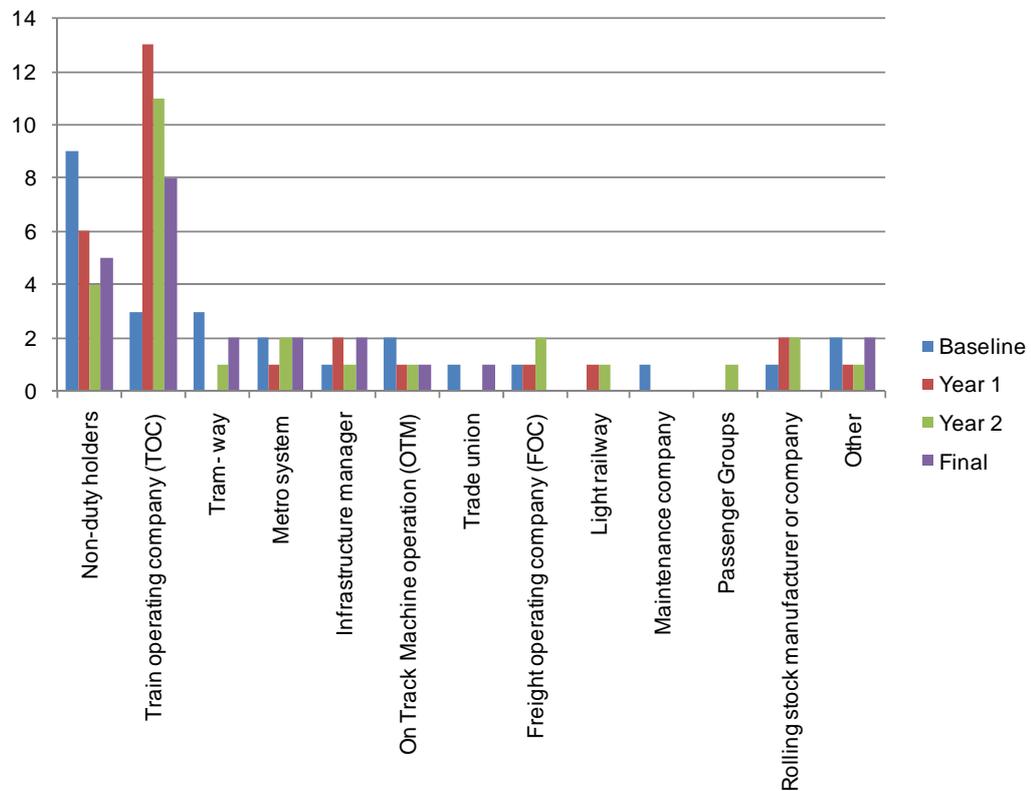


Figure 4 Types of survey respondent

Figure 4 shows that there was a relatively good representation from train operating companies (TOCS) across all four surveys, more specifically accounting for 35% (8 out of 23) of the final year sample. Non-duty holders are also evident in the graph, accounting for 22% (5 out of 23) of the final year sample. The remaining respondents came from a range of other organisations. It should be noted that in both the baseline and final year a trade union respondent indicated duty holder status (reflected in Figure 4) but they are generally considered not to be a duty holder as defined this report.

3.5 SURVEY FINDINGS – COMPLETED BY ALL SURVEY RESPONDENTS

3.5.1 Use of help in understanding and implementing ROGS

Respondents were asked whether they used guidance in understanding and implementing ROGS. This question was asked of all respondents regardless of duty holding status. Results showed that just over half of final year respondents (57%, 13 out of 23) needed help, with the proportion of respondents needing help having steadily declined from an original 100% at baseline (25 out of 25).

The 13 who had used guidance in understanding / implementing ROGS were asked to report the sources they had used. The frequencies of responses are shown in Figure 5.

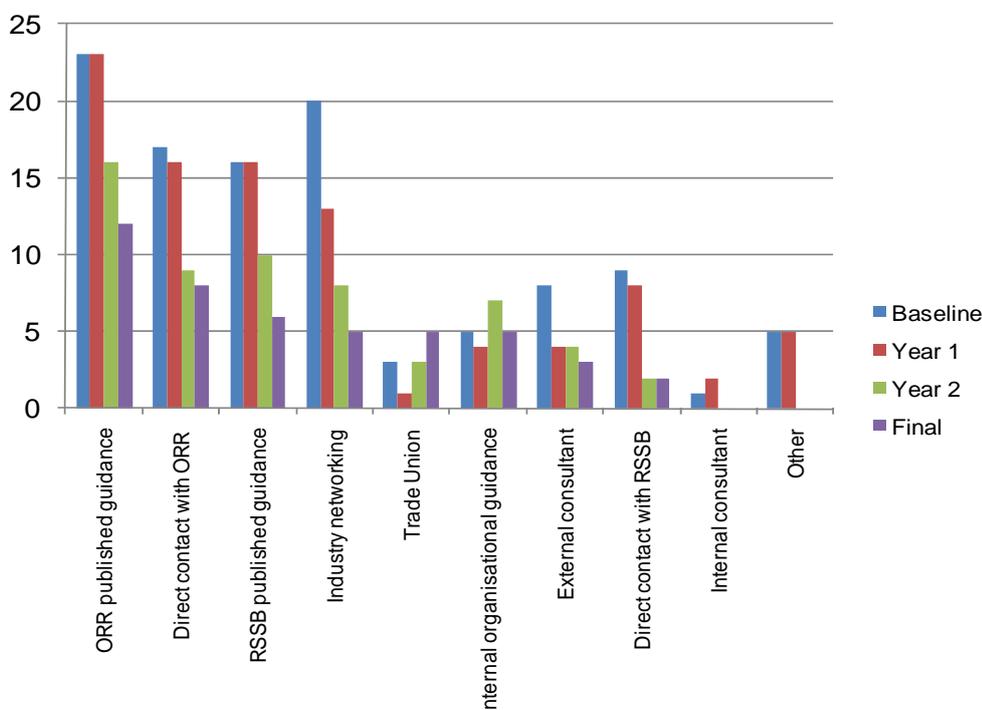


Figure 5 Sources used by respondents to help them understand / implement ROGS

Figure 5 shows that in the final year, the most popular source was ‘ORR published guidance’ used by 92% of respondents (12 out of 13). Across the years, this source has in fact consistently been the most relied upon.

The second most popular source in the final year was ‘direct contact with ORR’ reported by 62% (8 out of 13), and a slightly smaller proportion (46%, 6 out of 13) who used ‘RSSB published guidance’. These findings are generally in line with previous surveys where both sources were popular.

It can also be noted that the use of 'industry networking' to assist in understanding / implementing ROGS has seen a decline over the years, with 80% (20 out of 25 respondents) evident at baseline, reducing to 50% (13 out of 26 respondents) in year one, then 47% (8 out of 17 respondents) in year two, to a final 38% (5 out of 13) by the final year.

3.5.2 Indicators of Industry Safety Culture

3.5.2.1 Defining Safety Culture

Gathering a 'traditional' measure of organisational safety culture (i.e. the shared attitudes, values and beliefs about safety in an organisation originating from all levels of the organisation) within each rail organisation within the UK rail industry would not have been feasible within the remit of this current evaluation study. Therefore, in order to gather an 'indication' of safety culture within the rail industry, individuals with a health and safety role at each participating rail organisation were asked for their personal views on a series of safety culture statements. It should therefore be underlined that the responses received to the safety culture items presented the views of the individual respondent only, not the views of the whole organisation. However, they do provide an indicator of safety culture, based on the views of the people who are tasked with actively managing safety.

3.5.2.2 Approach

Views on key safety culture items were gathered in all four surveys, and all respondents (i.e. duty holders and non-duty holders) were asked to indicate their personal level of agreement with 13 safety culture statements. The safety culture statements included nine 'positive' and four 'negative' safety culture statements to ensure respondents did not become too familiar with answering the questions using the same scale points and thus reducing the reliability of the findings. The safety culture items were selected from the HSE's Safety Climate Tool (HSSCT)⁸ and represented each of the key safety culture factors within this safety culture model. In the year one survey a number of supplementary questions were also asked to explore safety culture in more detail. These were also asked in the subsequent surveys.

3.5.2.3 Presentation of results

Table 4 shows the responses to the safety culture indicator questions. For ease of presentation, the original 6-point Likert scale (strongly agree – agree – neither – disagree – strongly disagree – no opinion) has been collapsed down. For positively phrased items, 'favourable' responses have been aggregated (i.e. strongly agree – agree), and 'unfavourable' responses aggregated (i.e. strongly disagree – disagree). For negatively phrased items, where disagreeing is favourable, 'strongly disagree' – 'disagree' have been aggregated to represent the 'favourable' response, and the 'strongly agree' – 'agree' responses have been aggregated to represent the 'unfavourable' response.

Please note that results are expressed in terms of the proportion of responses in each category (favourable, neither etc.) and calculated based on the total sample size figures in Table 3:

Table 3 Sample sizes used for calculating responses to safety culture questions

	Survey			
	Baseline	Year one	Year two	Final
Number of respondents	26	28	27	23

Table 4 Level of agreement with core organisational safety culture issues

POSITIVELY PHRASED SAFETY CULTURE STATEMENTS	Year of survey	Response			
		Favourable	Neither	Unfavourable	No opinion
3.1. There are good communications here about health and safety issues	Baseline	69% (18)	8% (2)	4% (1)	19% (5)
	Year 1	86% (24)	4% (1)	4% (1)	7% (2)
	Year 2	89% (24)	4% (1)	0	7% (2)
	Final	87% (20)	0	4% (1)	9% (2)
3.2. The company really cares about the health and safety of the people who work here	Baseline	81% (21)	0	0	19% (5)
	Year 1	93% (26)	0	0	7% (2)
	Year 2	85% (23)	4% (1)	4% (1)	7% (2)
	Final	78% (18)	0	13% (3)	9% (2)
3.3. My immediate boss often talks to me about health and safety	Baseline	69% (18)	4% (1)	8% (2)	19% (5)
	Year 1	82% (23)	4% (1)	4% (1)	11% (3)
	Year 2	74% (20)	7% (2)	7% (2)	11% (3)
	Final	78% (18)	4% (1)	9% (2)	9% (2)
3.4. Supervisors are good at detecting unsafe behaviour	Baseline	50% (13)	23% (6)	0	27% (7)
	Year 1	50% (14)	32% (9)	7% (2)	11% (3)
	Year 2	70% (19)	15% (4)	4% (1)	11% (3)
	Final	52% (12)	17% (4)	13% (3)	17% (4)
3.6. I trust my workmates with my health and safety	Baseline	69% (18)	8% (2)	4% (1)	19% (5)
	Year 1	86% (24)	7% (2)	0	7% (2)
	Year 2	85% (23)	0	0	15% (4)
	Final	78% (18)	9% (2)	4% (1)	9% (2)
3.7. I am clear about what my responsibilities are for health and safety	Baseline	81% (21)	0	0	19% (5)
	Year 1	93% (26)	0	0	7% (2)
	Year 2	89% (24)	4% (1)	0	7% (2)
	Final	91% (21)	0	0	9% (2)

POSITIVELY PHRASED SAFETY CULTURE STATEMENTS	Year of survey	Response			
		Favourable	Neither	Unfavourable	No opinion
3.9. People here always work safely even when they are not being supervised	Baseline	38% (10)	15% (4)	23% (6)	23% (6)
	Year 1	57% (16)	29% (8)	7% (2)	7% (2)
	Year 2	56% (15)	19% (5)	19% (5)	7% (2)
	Final	48% (11)	17% (4)	26% (6)	9% (2)
3.12. There are always enough people available to get the job done according to the health and safety procedures / instructions / rules	Baseline	31% (8)	19% (5)	19% (5)	31% (8)
	Year 1	61% (17)	25% (7)	4% (1)	11% (3)
	Year 2	67% (18)	19% (5)	4% (1)	11% (3)
	Final	52% (12)	17% (4)	22% (5)	9% (2)
3.13. Near misses are always reported	Baseline	19% (5)	19% (5)	38% (10)	23% (6)
	Year 1	11% (3)	21% (6)	43% (12)	25% (7)
	Year 2	19% (5)	22% (6)	44% (12)	15% (4)
	Final	17% (4)	26% (6)	43% (10)	13% (3)

* Not all percentages may sum up to 100% due to rounding

NEGATIVELY PHRASED SAFETY CULTURE STATEMENTS	Year of survey	Response			
		Favourable	Neither	Unfavourable	No opinion
3.5. There is nothing I can do to further improve health and safety here	Baseline	77% (20)	0	4% (1)	19% (5)
	Year 1	25% (7)	11% (3)	0	64% (18)
	Year 2	74% (20)	11% (3)	7% (2)	7% (2)
	Final	74% (17)	4% (1)	13% (3)	9% (2)
3.8. People here do not remember much of the health and safety training which applies to their job	Baseline	62% (16)	8% (2)	8% (2)	23% (6)
	Year 1	61% (17)	18% (5)	4% (1)	18% (5)
	Year 2	70% (19)	19% (5)	4% (1)	7% (2)
	Final	61% (14)	22% (5)	9% (2)	9% (2)
3.10. People here think health and safety is not their problem – it's up to management and others	Baseline	69% (18)	8% (2)	4% (1)	19% (5)
	Year 1	82% (23)	7% (2)	4% (1)	7% (2)
	Year 2	74% (20)	7% (2)	7% (2)	11% (3)
	Final	65% (15)	9% (2)	17% (4)	9% (2)
3.11. Some people here have a poor understanding of the risks associated with their work	Baseline	35% (9)	12% (3)	35% (9)	19% (5)
	Year 1	50% (14)	18% (5)	21% (6)	11% (3)
	Year 2	48% (13)	15% (4)	26% (7)	11% (3)
	Final	35% (8)	13% (3)	43% (10)	9% (2)

* Not all percentages may sum up to 100% due to rounding

3.5.2.4 Key safety culture findings

Table 4 highlights the following key points:

- In the final year, the majority of respondents answered favourably to 11 out of 13 safety culture statements. A similar trend was seen across all other years.
- With regard to the statements about near miss reporting and understanding of work-related risk, the largest percentage of respondents in the final year were unfavourable. This was similar to previous surveys in relation to near miss reporting, but the response to risk understanding was at its most unfavourable in the final year.
- Acknowledging that the response of just one or two people can affect percentages for small samples, the following safety culture statements showed a small increase in the percentage of unfavourable responses in the final year:
 - *“The company really cares about the health and safety of the people who work here”*
 - *“Supervisors are good at detecting unsafe behaviour”*
 - *“People here always work safely even when they are not being supervised”*
 - *“There are always enough people available to get the job done according to the health and safety procedures / instructions / rules”*
 - *“There is nothing I can do to further improve health and safety here”*
 - *“People here think health and safety is not their problem – it’s up to management and others”*
- Additional supplementary questions were added to the year one survey in order to explore industry safety culture in more detail. The responses for that year, as well as the responses for year two and the final year, are presented in Table 5.
- Note that a percentage increase (or decrease) could be positive or negative depending on whether the statement is positive or negative.

Table 5 Supplementary safety culture questions and responses from the year one, two and final survey

QUESTION	Year of survey	Response			
		Yes	No	Not sure	Not answered
Positively phrased questions					
Do management involve staff at all levels in safety related decision making?	Year 1	61% (17)	18% (5)	18% (5)	3% (1)
	Year 2	63% (17)	22% (6)	11% (3)	4% (1)
	Final	65% (15)	22% (5)	9% (2)	4% (1)
Is there a message conveyed to all staff that safety is a key priority?	Year 1	89% (25)	0	8% (2)	3% (1)
	Year 2	85% (23)	4% (1)	4% (1)	7% (2)
	Final	91% (21)	0	4% (1)	4% (1)
Negatively phrased questions					
Are there any circumstances where staff are placed under pressure to meet operational performance objectives?	Year 1	64% (18)	18% (5)	14% (4)	3% (1)
	Year 2	52% (14)	22% (6)	19% (5)	7% (2)
	Final	61% (14)	13% (3)	17% (4)	9% (2)
If 'yes' to the above question, do you think this pressure affects safety?	Year 1	18% (5)	25% (7)	29% (8)	29% (8)
	Year 2	15% (4)	30% (8)	22% (6)	33% (9)
	Final	35% (8)	26% (6)	13% (3)	26% (6)

* Not all percentages may sum up to 100% due to rounding

Table 5 illustrates that perceptions have remained positive over the last three surveys regarding management involving staff in safety related decision making and safety being a key priority.

When asked whether staff are placed under pressure to meet operational performance objectives, across all three years the majority of respondents agree that there are circumstances where staff are placed under pressure. Respondents' comments included:

- 'Perceived' pressure may come from the need to manage day-to-day operations (such as overcoming train delays)
- Pressure may come from project deadlines for installations and commissioning which may be impacted by rail timetables
- Staff shortages can create pressures, yet this may not necessarily be taken into account by supervisors who press for the job to be finished and safety is not one of their priorities
- Operational pressure and financial pressure (from insufficient funding) exist which may impact safety
- Pressure exists to complete project milestones for project and upgrade teams, whilst the rest of the business has pressures to improve upon metrics (including safety) via a scorecard system

When asked whether such pressure affects safety, 35% (8 out of 23) of the final year respondents agreed that it does, which was higher than previous surveys. Relevant comments on this topic indicated that pressure affects safety through:

- Staff shortages promoting overtime opportunities leading to fatigue, which may compromise health and safety decision-making
- Increased mistakes and stress could be an outcome of pressure, leading to ill-health
- Pressure from being behind schedule can add to the risk of inadequate briefing, leading to problems further down the line
- The pressure to maintain a schedule may lead to staff cutting corners and overriding safety systems to avoid delays

Respondents were further asked who communicates the message that safety is a key priority. The majority of final year respondents (65%, 15 out of 23) reported that it was a mixture of senior / middle management, safety representatives and site work supervisors. An additional 26% (6 out of 23) reported that senior management do the communicating. Such results are in line with previous surveys, with the majority reporting that a mixture of individuals communicate that safety is a priority.

Physical communication of the message that safety is a priority was reported to be through a variety of mediums: team meetings; emails; notice boards; staff bulletins; policy statements; toolbox talks; line management walkabouts; presentations; safety training; road shows; and videos.

3.5.3 Feedback on ROGS and ORR

Respondents were asked about their views on ORR and ROGS. It should be noted that the views expressed in this section are only the views of the individual respondents and are not necessarily representative of their whole organisation.

3.5.3.1 ROGS impact on safety management

Figure 6 highlights the respondents' feedback to the question of whether ROGS has influenced the way safety is managed.

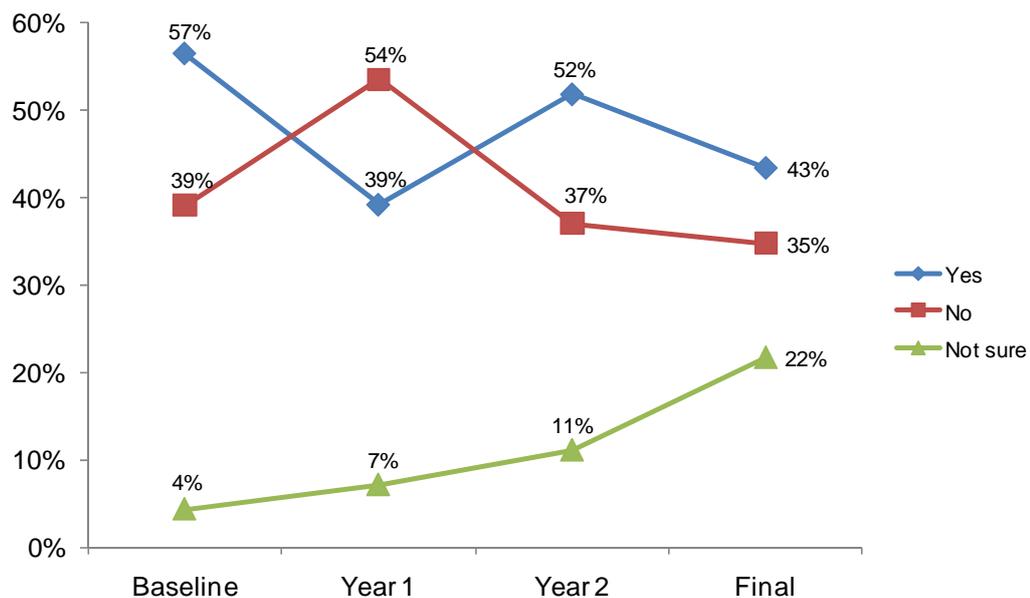


Figure 6 Responses to the question: “Has ROGS changed the way in which safety has been managed in your organisation?”

Figure 6 illustrates that in the final year, more respondents believe that ROGS has changed the way safety is managed (43%, 10 out of 23), than those who do not (35%, 8 out of 23). This trend is also consistent with previous surveys, with the exception of year one. Interestingly, the trend for those who are ‘not sure’ whether ROGS has influenced the way safety is managed has steadily rose from 4% (1 out of 26) at baseline through to 22% by the final year (5 out of 23).

Comments about ROGS include the following (note comments have been summarised for ease of reference):

- ROGS has not made a big impact because a safety management system was already in place (2 respondents)
- ROGS is a more formalised process
- ROGS has slightly affected the direction in the evolution of our safety management system
- ROGS is merely another piece of legislation to consider and act upon

- Operational safety has improved due to ROGS specifying requirements for contractors and suppliers
- ROGS has initiated changes to formal documentation and monitoring procedures
- ROGS has increased the organisation's dependency on Safety Validations compared to previous surveys
- ROGS has not changed how safety is managed in the organisation, although there is more freedom in the way safety is managed
- ROGS has put [organisation] in a duty holder role, where previously it was undertaken by a third party

3.5.3.2 Impact of ROGS on business operations

When asked if any changes made as a result of ROGS had impacted on business operations, respondents had to indicate whether this impact had been 'positive', 'neutral' or 'negative'. Their responses have been presented on Figure 7. (Note that this question was not asked in the baseline survey).

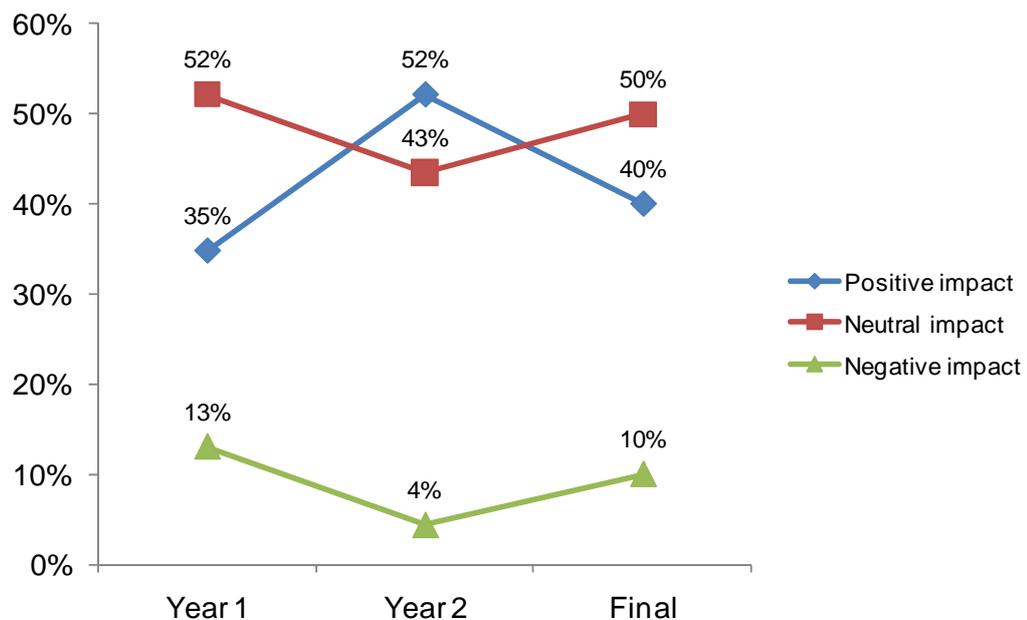


Figure 7 Responses to the question: "If changes have been required (due to ROGS), how have they impacted on your business operations?"

Figure 7 shows that 50% of respondents who were able to answer this question (10 out of 20 responses) in the final year reported that ROGS had had a 'neutral' impact. Encouragingly, 40% (8 out of 20) claimed ROGS had had a 'positive' impact.

In addition, across each year, those who felt ROGS had had a 'negative' impact has remained consistently low. In addition, in year two, more respondents felt that the impact was positive rather than negative, although this trend did not continue into the final year.

To understand what the positive effects have been, the final year respondents were asked to comment. These verbatim comments are as follows (each bullet point represents the views of one individual):

- "ROGS is simpler and places liability with the organisation responsible for the undertaking."
- "Greater self regulation."
- "More formally structured safety management system."

- *“Processes have been streamlined as a result of review, making them more efficient and achieving better compliance levels from staff, because the bureaucracy has been reduced.”*
- *“Before the ROGS business operations appeared to far outweigh H&S. Since the implementation of ROGS H&S has come to the forefront.”*
- *“Fatigue management has become more proceduralised and the HSE Fatigue Index Tool is used.”*

3.5.3.3 Impact of ROGS on safety related decision-making

The survey also asked whether ROGS had made a difference to safety related decision-making. Figure 8 presents the findings.

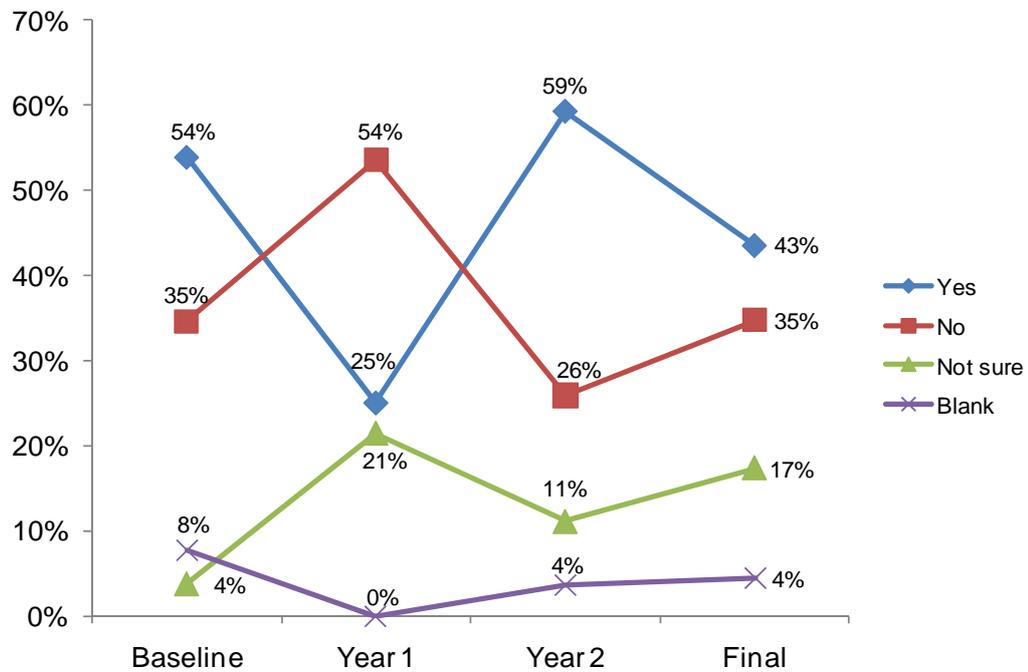


Figure 8 Responses to the question: “Has ROGS made any difference to safety related decision-making?”

Figure 8 indicates that the most common response in the final year was that ROGS had influenced safety related decision-making (43%, 10 out of 23).

The trend in responses across the years shows a degree of fluctuation, but on the whole (with the exception of year one), large proportions of respondents felt that ROGS had influenced their organisations’ decision-making around safety.

For those in the final year who agreed that ROGS had influenced safety related decision-making, their comments included:

- *“Enhanced validation of all aspects of the business.”*
- *“More local evaluation of changes (Safety Validation).”*
- *“Less prescription, more freedom to decide but must be able to justify.”*
- *“There is now a defined process for dealing with areas of dispute with Network Rail.”*
- *“Prior to ROGS DLRL [Docklands Light Railway Ltd] worked at arm’s length with our Franchisee and Concessionaires.”*

- *“They have made it easier to cut the costs of safety.”*
- *“There is more reliance on doing what we think is right, rather than relying on what will satisfy HMRI.”*
- *“The safety approvals processes have changed.”*
- *“There is more consultation, although not always with safety reps. The H&S dept was expanded to help deal with any safety related decision making that may be required through ROGS or as a result of ROGS.”*

Final year respondents who disagreed that ROGS had made a difference to safety related decision-making elaborated by making the following comments:

- *“We still follow HSG 45 principles.”*
- *“The same decision making processes are used now as they were used under the old Safety Case regime.”*
- *“As an ex-Railway Safety Case duty holder [organisation] was required to address safety related decision making at a strategic level.”*

3.5.3.4 Standards of safety under ROGS

Respondents were asked if standards of safety had altered as a consequence of introducing ROGS. Results are presented in Figure 9.

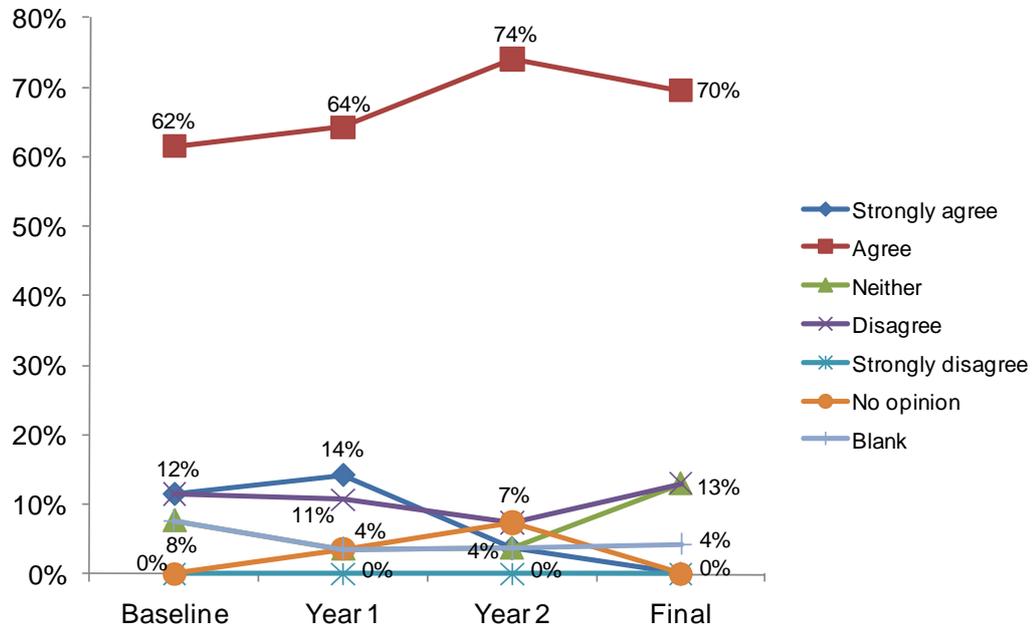


Figure 9 Level of agreement with the statement: “From experience, I believe that standards of safety are the same under ROGS”

Figure 9 shows that in the final year 70% (16 out of 23) of respondents agreed that standards of safety are the same under ROGS. This trend was apparent across all four surveys, with the clear majority of respondents believing standards of safety are the same under ROGS. In addition, no one indicated that they ‘strongly disagree’ with the statement at any point in time.

3.5.3.5 Administrative burden of ROGS

Figure 10 shows the results when respondents were questioned about the administrative burden of ROGS.

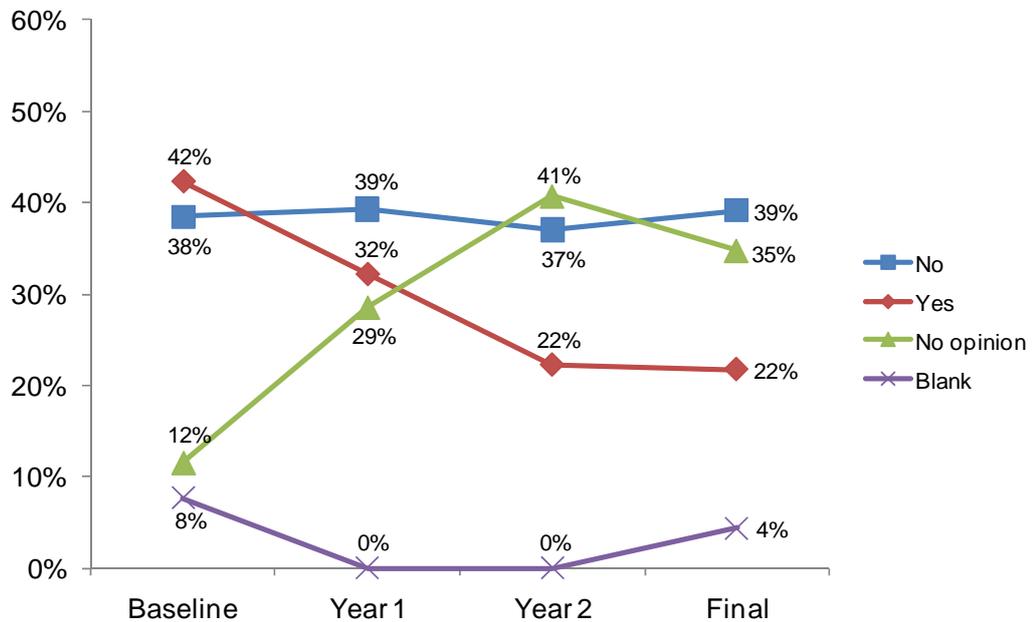


Figure 10 Responses to the question: “Could more be done to reduce the administrative burden of the regulations?”

Figure 10 illustrates that the largest proportion of the final year respondents (39%, 9 out of 23) believe that nothing more can be done to reduce the administrative burden. The proportion of respondents who feel that not a lot more could be done to reduce the burden has remained relatively consistent across years. Furthermore, the proportion of those who felt that more could be done, reduced from 42% (11 out of 26) at baseline down to 22% (5 out of 23) by the final year.

Some of the final year respondents' comments include:

- *“The regulations are not onerous to deal with compared to the equivalent in some other industries.”*
- *“Safety management is what it is. The introduction of ROGS was a collaborative one with all parts of the industry involved. The ORR consequently did a very good job without fuss and bother in the implementation process.”*
- *“Having to justify, document and report how safety is managed is all time consuming and prevents managers from actively managing safety.”*

3.5.3.6 Requesting and receiving help from ORR

To determine whether assistance was required from ORR in ROGS implementation, and gauge ORR's level of response, respondents were questioned about whether they had asked for any help. Note that this question was not asked in the baseline survey. Results are shown in Figure 11.

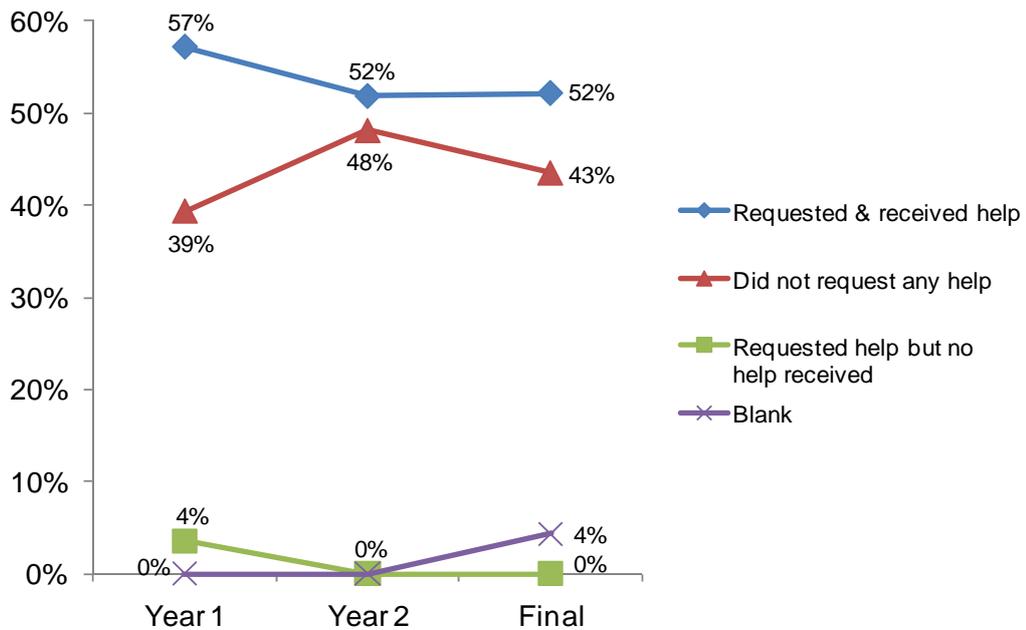


Figure 11 Responses to the question: “Did you request and / or receive help from ORR regarding ROGS?”

Figure 11 shows that just over half of the final year respondents (52%, 12 out of 23) requested and received support. This is in line with the findings from previous surveys. Encouragingly, no one had requested help and then not received any in both the final year and year two.

The type of support needed from those who requested it included:

- Help on general interpretation of ROGS (four respondents)
- Guidance on safety certification (four respondents)
- Guidance on safety authorisation (two respondents)
- Other help related to the safety validation system (one respondent) and the development of a training course for health and safety representatives to understand ROGS (one respondent).

3.5.3.7 Quality of help from ORR

Respondents were also asked to rate the quality of the assistance they had received from ORR. Note this question had been asked in all the surveys. The results are presented in Figure 12.

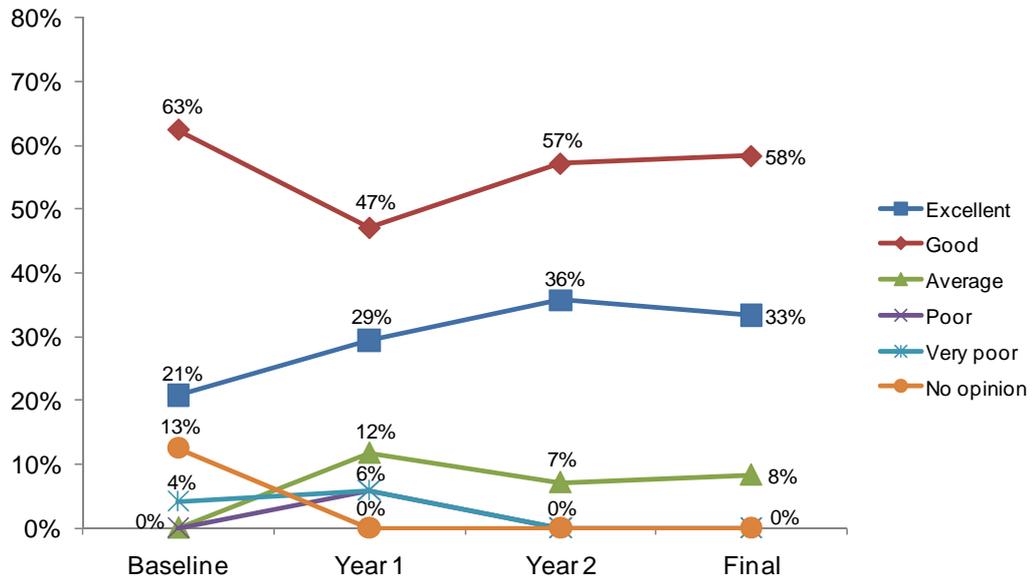


Figure 12 Responses to the question: “How would you describe the help you received from ORR?”

Figure 12 highlights that the majority of the final year respondents 58% (7 out of 12) rated the help received from ORR as ‘good’, with a further 33% (4 out of 12) rating it as ‘excellent’ (an aggregated total of 92%, 11 out of 12). These findings were almost identical to year two and a similar proportion of respondents also described the help as ‘excellent’ or ‘good’ in the year one and baseline surveys.

3.5.3.8 Number of visits from ORR inspectors

Final year respondents were asked to indicate how often they had received a visit from an ORR inspector in the **first six months** of 2009 (to take account of the fact that only around six months had passed since issuing the year two survey) on a scale of ‘no visits’ through to ‘more than 10’ visits. Note that this question was not asked in the baseline survey. In years one and two, respondents were asked to estimate the number of **annual** visits in 2007 and 2008 respectively. Results are shown in Figure 13 for those who provided a response.

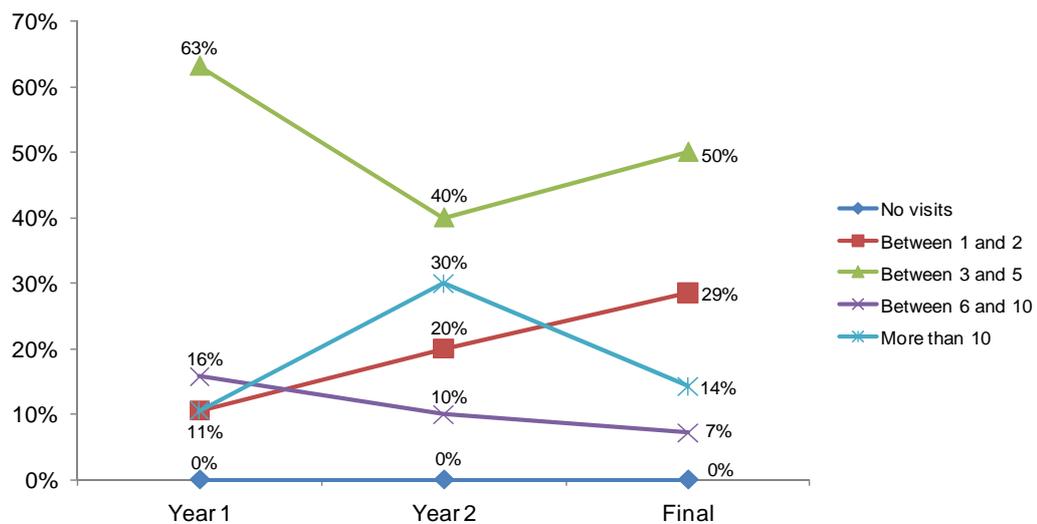


Figure 13 Responses to the question: “How many times have you received a visit from an ORR inspector in 200X?” (‘X’ denotes the year of survey)

Figure 13 shows that in the final year (based on visits for the first half of the year), half of the responses (50%, 7 out of 14) indicated receiving between 3 and 5 visits. This was similar to previous surveys (despite the time period being one year on previous surveys as opposed to six months in the final year). This suggests that if the survey had obtained data for the whole year, the final year may have seen an increase in the number of visits received. The percentage of respondents receiving between 1 and 2 visits steadily increased over the three surveys.

3.5.3.9 Duration of visits from ORR inspectors

The respondents who confirmed they received visits from inspectors were also asked to indicate the length of such visits. Results are shown in Figure 14.

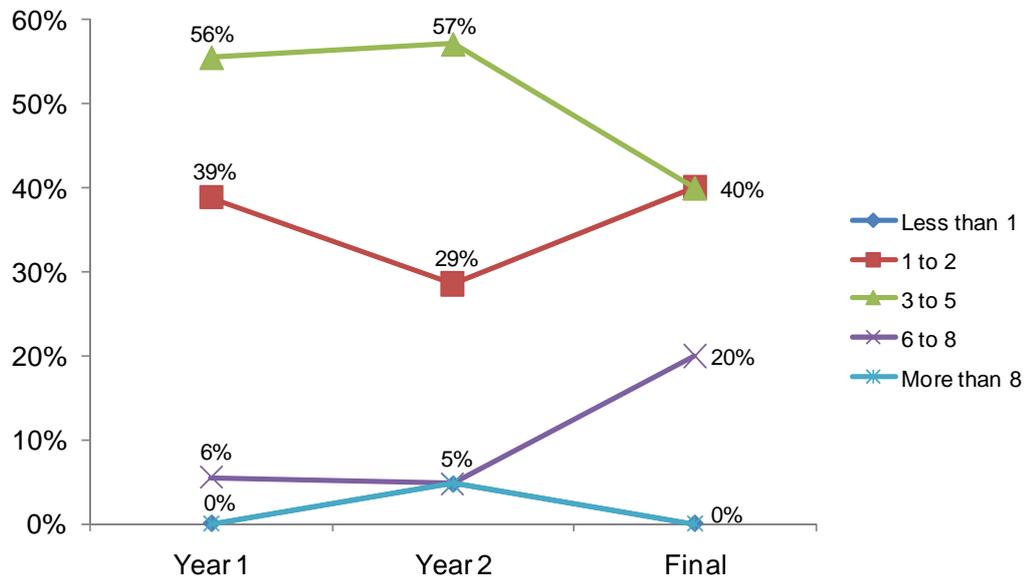


Figure 14 Responses to the question: “Typically, how much time did the ORR inspector spend with your organisation on one visit (in hours)?”

Figure 14 shows that in the final year a large proportion (40%, 6 out of 15) of respondents said visits lasted between ‘1 to 2 hours’. The same proportion also said visits lasted between ‘3 to 5’ hours. Across the years, ‘3 to 5’ hours has usually been the most common duration. It is also evident that visits lasting between ‘6 to 8’ hours have increased in the final year to 20% (3 out of 15).

Final year respondents were also asked how the duration of visits compared to the previous regulatory regime. Analyses of their responses found that the majority (61%, 11 out of 18) indicated that the duration of visits are the same under ROGS as under the previous regulatory regime. This was also found in previous surveys.

3.5.4 Comments about ORR support

Finally, respondents were asked what else ORR could do to help them with ROGS. General comments received were as follows:

- *“Happy with support provided.”*
- *“Nothing more than is already being done.”*
- *“Nothing specific, we have a quarterly compliance review attended by HMRI.”*
- *“We have a good relationship with our inspector and open lines of communication should we need them.”*

Areas identified to improve upon were as follows:

- *“Would like them [ORR] to facilitate the sharing of best practice between all TOCs.”*
- *“The industry steering group is still in existence, albeit not currently meeting on any regular basis.”*
- *“Just be there and be willing to provide advice when I need it.”*
- *“More clarity and guidance on ORR expectations during transition from ‘responsible person’ to operator in a tramway context, particularly as the operator may have limited influence on safety by design and construction if brought on at a later stage in the project by the client.”*
- *“Inform management of the importance of following all parts of the ROGS, not just the parts they want to and then interpret the ones they don't like to suit.”*
- *“Identification of Safety Related or Key Safety Roles and the way in which these should be managed.”*

3.6 SURVEY FINDINGS – COMPLETED BY DUTY HOLDERS ONLY

3.6.1 Number of duty holders responding to survey

As detailed earlier, out of the 23 organisations who participated in the final year survey, 18 classed themselves as duty holders, and the remaining five classed themselves as non-duty holders. One respondent classed themselves as a duty holder despite being a trade union. As this respondent did not respond to many of the technical questions, this was not felt to bias the findings.

3.6.2 Safety Management System (SMS)

All duty holders only were asked a series of questions relating to safety management systems (SMS).

In order to ensure the SMS questions were relevant to the respondent, duty holders were firstly asked if they had a SMS, which was ROGS compliant. Around 83% (15 out of 18 duty holders) of respondents in the final year had a SMS. This is similar to year two (83%, 19 out of 23), year one (86%, 19 out of 22), and up on the baseline (71%, 12 out of 17).

For the final year, further exploration was conducted into the three individuals who did not feel they had a ROGS compliant SMS in place. One of these individuals did not answer the question, one said they were 'not sure' and one said 'no'. Of the two who answered 'no' or 'not sure', one was a trade union, the other a supplier of signalling equipment. Neither of which would be expected to have a ROGS compliant SMS in place.

It should be noted that for the following reporting on SMS questions the number of responses may not match the number of organisations that confirmed they had a ROGS compliant SMS in place (i.e. 15). Where responses were less than 15, it may be because the organisation felt the question was not relevant for them. Where the responses were more than 15, it may be because respondents felt they could comment despite not having a ROGS compliant SMS in place.

3.6.2.1 Time spent maintaining a SMS

Respondents who had a SMS in place were asked how much time they had spent maintaining it. Results are shown in Table 6.

Table 6 Estimated number of days spent maintaining a SMS under ROGS per year

Days	Number of respondents			
	Baseline	Year 1	Year 2	Final
10 to 49	2	2	4	5
50 to 99	-	4	1	1
100 to 250	1	2	6	4
> 250	1	-	1	-

Table 6 shows that in the final year, most respondents reported spending between '10 to 49' days or between '100 to 250' days. This was also similar to the results from year two.

3.6.2.2 Cost of maintaining a SMS

Respondents were also asked how much money they had spent maintaining a SMS. Results are shown in Table 7.

Table 7 Estimated costs spent in maintaining a SMS under ROGS per year (000s GBP)

Costs (£)	Number of respondents			
	Baseline	Year 1	Year 2	Final
1 to 9.9k	-	2	1	1
10 to 49.9k	1	2	3	3
50 to 249.9k	1	2	1	-

Table 7 illustrates that in the final year, most respondents (who gave a response) indicated spending between £10k to £49.9k (stated by a Train Operating company, a Tram Way company, and an On Track Machine Operation company). Such figures are also similar for year two. Due to the very small numbers who were able to provide a response on this question, it is difficult to generalise about the change in costs over time.

Respondents were also asked to specify whether such costs were 'less', 'similar', or 'more' than the costs associated with maintaining a safety case (15 responses were received). The results are shown in Figure 15.

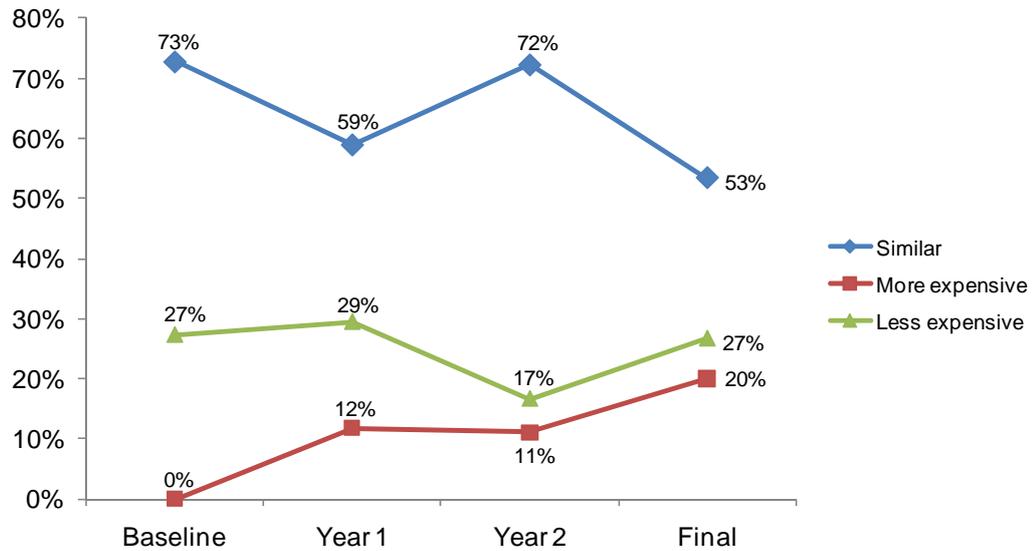


Figure 15 Comparison of the current costs associated with maintaining a SMS under ROGS compared with the costs of maintaining a safety case

Figure 15 shows that in the final year, the majority of respondents (53%, 8 out of 15) who had a SMS feel that the maintenance costs have been similar to costs associated with maintaining a safety case. This trend was the same across all four surveys. There is also a trend emerging for more respondents to report that costs are ‘more expensive’ to maintain a SMS under ROGS rising from 0% at baseline to 20% (3 out of 15) by the final year.

3.6.2.3 Challenges encountered in maintaining a SMS

The survey also asked respondents about what they felt the main challenges were in maintaining a SMS under ROGS. The results are presented in Figure 16. Note that respondents were asked to tick all the options that applied to them (i.e. respondents may have selected more than one option).

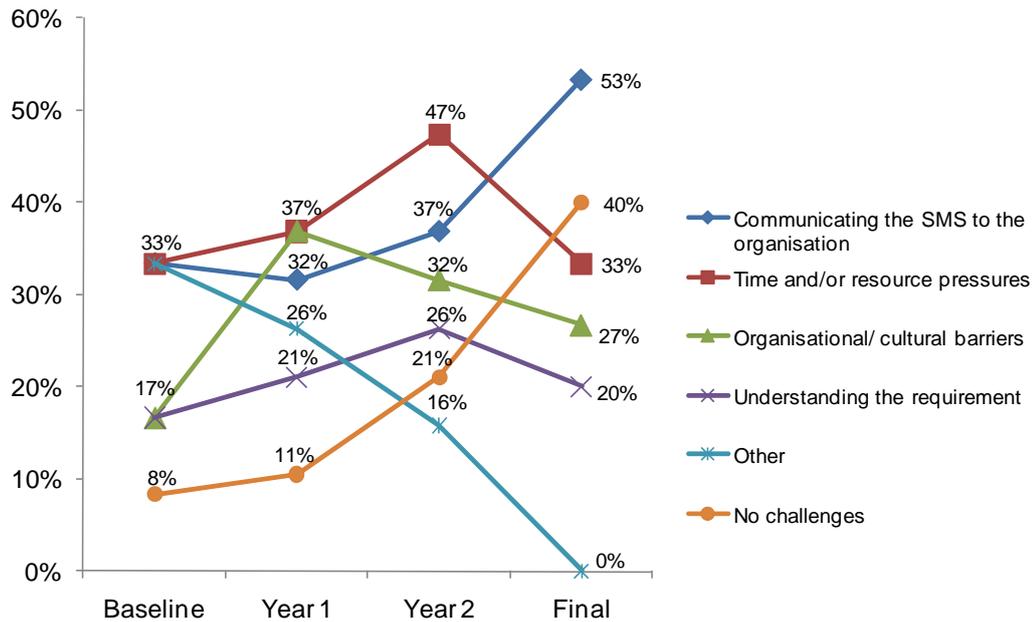


Figure 16 Main challenges in maintaining a SMS under ROGS

Figure 16 indicates that for the final year the most reported challenge was ‘communicating the SMS to the organisation’ (53%, 8 out of 15 possible respondents). This challenge appears to be becoming more of an issue compared with previous surveys. However, encouragingly, not only do 40% (6 out of 15) of final year respondents report ‘no challenges’ (a strong increase since the baseline of 8% (1 out of 12)), but there has been a strong decline in the challenge ‘time and / or resource pressures’ from year two through to the final year.

3.6.2.4 Changes to safety due to SMS

Finally, respondents were asked to give their view on whether SMS under ROGS has affected safety. The results are presented in Figure 17.

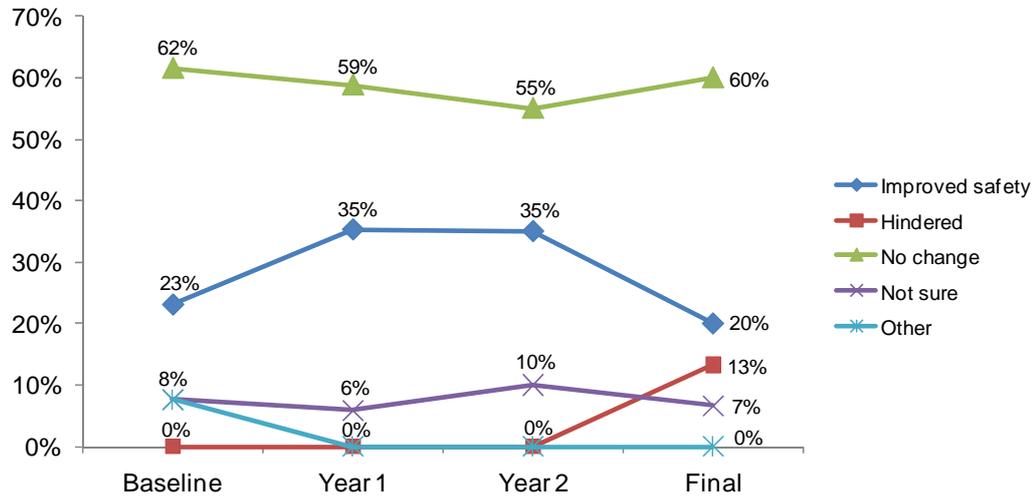


Figure 17 Responses to the question: “To what extent do you think SMS under ROGS has affected safety?”

Figure 17 shows that the majority in the final year (60%, 9 out of 15) feel that SMS under ROGS has not affected safety (i.e. no change). This is consistent with the trend where the majority of respondents in all years have felt that safety has not been affected.

It can also be seen that there is a smaller proportion (20%, 3 out of 15) of the final year respondents who feel that safety has improved because of SMS under ROGS. Less encouragingly, 13% of the final year respondents (albeit 2 out of 15 and both from a Train Operating Company) feel that safety has been hindered compared to 0% of respondents in previous surveys.

3.6.3 Safety Verification

All duty holders (18 in the final year) were asked if they had processes in place for ensuring the safe introduction of new / altered infrastructure or rolling stock to their operation. Figure 18 highlights all of the processes duty holders have in place (note that respondents were asked to indicate all the processes that were applicable to their organisation).

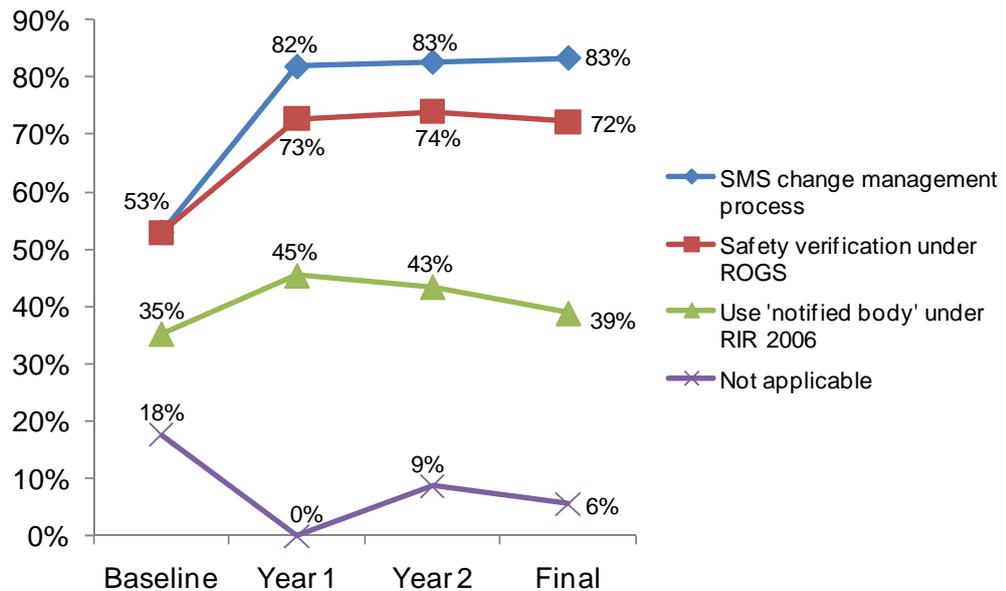


Figure 18 Duty holder processes in place for the safe introduction of new / altered infrastructure or rolling stock

Figure 18 shows that a high proportion of duty holders (83%, 15 out of 18) in the final year had a SMS change management process in place. This has increased from the baseline of 53% (9 out of 17). Safety verification under ROGS is also in place in a large number of respondents' organisations in the final year (72%, 13 out of 18) and also has increased since the baseline.

3.6.3.1 Time spent in safety verification

Respondents were asked to estimate the number of days spent undertaking safety verification under ROGS annually. Results are shown in Table 8.

Table 8 Estimated number of days spent in undertaking safety verification under ROGS per year

Days	Number of respondents			
	Baseline	Year 1	Year 2	Final
< 10	2	1	1	-
10 to 49	3	5	5	6
50 to 99	1	1	-	-
100 to 250	1	3	3	3
> 250	1	-	2	1

Table 8 shows that in the final year, over half of the respondents (six out of 10 who answered this question) reported spending between '10 to 49' days. A further three respondents spent between 100 to 250 days. These results are generally in line with previous surveys.

3.6.3.2 Costs spent in safety verification

Respondents were also asked how much money they had spent on undertaking safety verification under ROGS. Results are shown in Table 9.

Table 9 Estimated costs spent in undertaking safety verification under ROGS per year (000s GBP)

Costs (£)	Number of respondents			
	Baseline	Year 1	Year 2	Final
1 to 9.9k	1	2	1	2
10 to 49.9k	1	-	-	-
50 to 249.9k	-	2	1	-
250 to 1000k	1	-	-	-

Table 9 shows that only two respondents (a Train Operating company and a Tram Way company) were able to estimate costs in the final year, with both citing between £1k to £9.9k. Due to the small samples answering this question across the four surveys, it is difficult to confirm any trends.

3.6.3.3 Challenges encountered in meeting the requirements for safety verification

Respondents who had indicated they had a SMS change management process or had safety verification under ROGS were further asked what the main challenges were in meeting the requirements of safety verification. Results are shown in Figure 19.

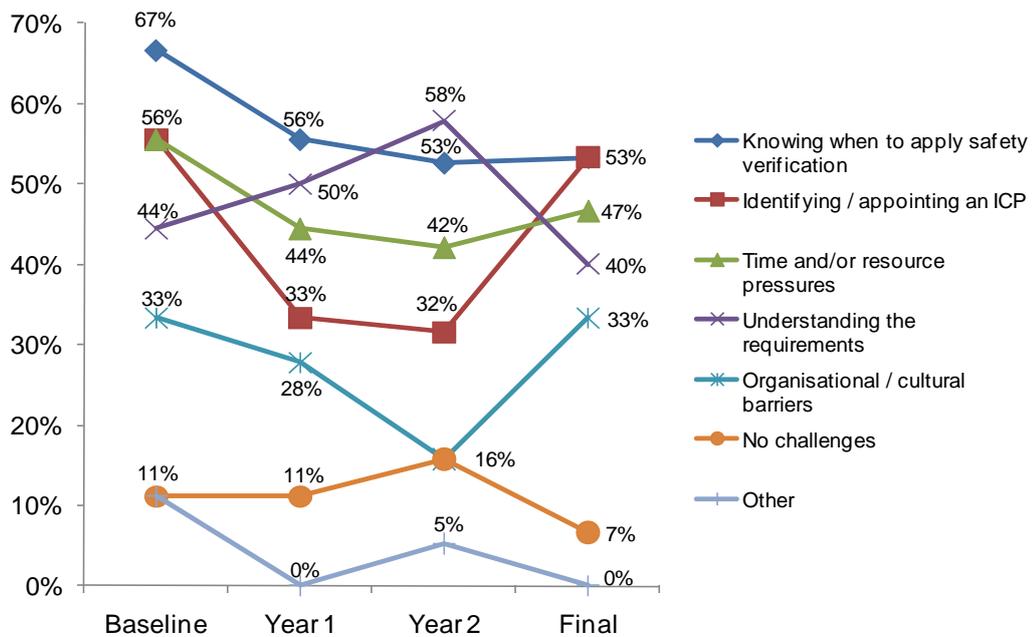


Figure 19 Responses to the question: “What are the main challenges in meeting the requirements of safety verification?”

Figure 19 shows that ‘identifying / appointing an Independent Competent Person (ICP)’ and ‘knowing when to apply safety verification’ are the greatest challenges for the final year respondents (both 53%, 8 out of 15 possible respondents). Whilst ‘knowing when to apply safety verification’ has gradually reduced from the baseline (67%, 6 out of 9). The proportion who report ‘identifying / appointing an ICP’ as being a challenge was much lower in years one and two (around 33%).

Encouragingly, ‘understanding the requirements’ has become less of a challenge, dropping from 58% (11 out of 19 possible respondents) in year two to 40% (6 out of 15 possible respondents) by the final year.

3.6.3.4 Changes to safety due to safety verification

Respondents were also asked to rate the level of improvement in safety as a result of safety verification under ROGS. Responses are presented in Figure 20.

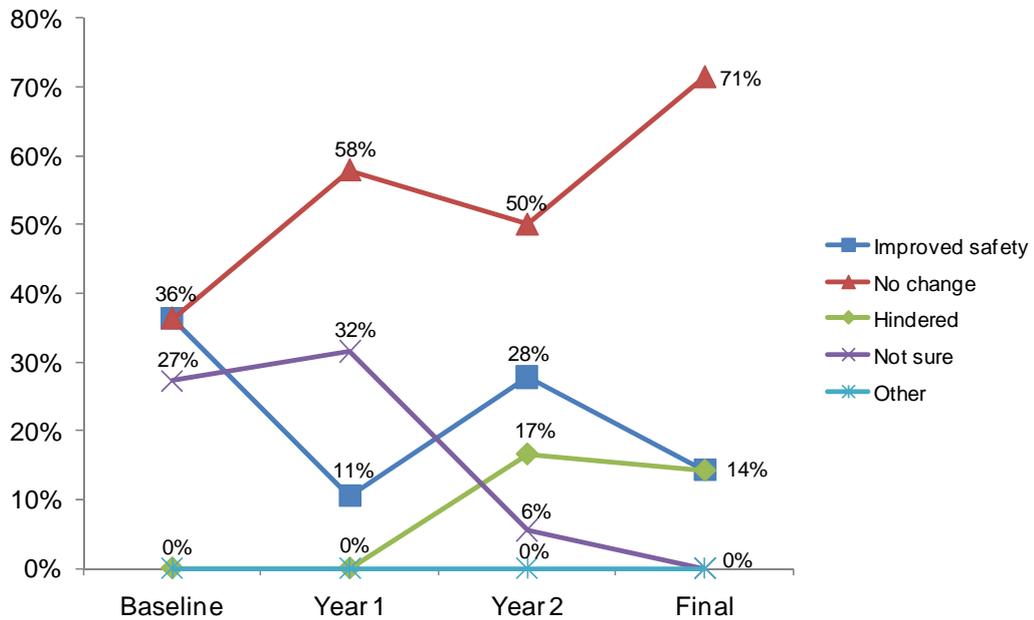


Figure 20 Responses to the question: “To what extent do you think safety verification under ROGS has affected safety?”

Figure 20 shows that the majority of the final year respondents (71%, 10 out of 14) who answered this question reported that safety has not changed as a result of safety verification. This proportion is much higher than in previous surveys. There has been fluctuation in the proportion who report that safety has improved due to safety verification over the years. Those that think safety has been hindered by it amounted to 14% in the final year, a marginal decrease from 17% (3 out of 18) in year two.

3.6.4 Safety Certification

All duty holders (18 in the final year) were asked if they held a safety certificate under ROGS. Around 61% (11 out of 18) of final year respondents said they did, which was similar to year two (65%, 15 out of 23) and year one (59%, 13 out of 22), but higher than at baseline (41%, 7 out of 17).

Respondents were additionally asked to report all completed stages of the safety certification assessment process. Results are shown in Figure 21.

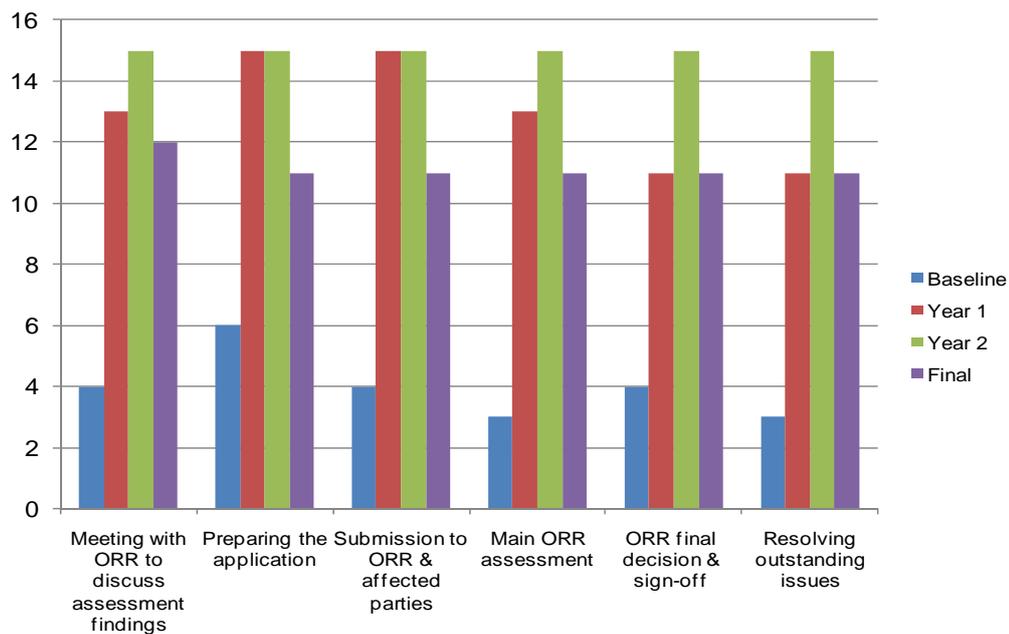


Figure 21 Stages in safety certification process completed by duty holders

Figure 21 indicates the number of respondents achieving each stage of assessment. All stages had been achieved by 11 final year respondents and one additional respondent also reported ‘meeting with ORR to discuss assessment findings’ (taking that total to 12).

Although the sample of duty holders in years one and two were larger (22 and 23 respectively), at baseline the number was similar (17) to the final year (18). Therefore, it can be seen that the number of respondents who needed to attain safety certification and have subsequently achieved it, has increased from the baseline.

Respondents were additionally asked whether improvements could be made to the application process. In the final year, the most common response was ‘no’ (45%, 5 out of 11), and only 18% (2 out of 11, representing a Train Operating company and a Metro company) said ‘yes’. Two respondents elaborated with comments:

- *“As the main safety manager in my organisation I have many day-to-day issues to deal with, whilst making ROGS applications is a very occasional*

task. Going forward this must be taken into consideration and appropriate support be available.”

- “More explicit - very vague.”

3.6.4.1 Time spent in achieving safety certification

Those holding safety certification were asked to provide estimates of the time consumed in their initial applications (and making amendments) for safety certification under ROGS.

Table 10 shows a mixed picture in terms of the number of days needed to undertake **initial** applications, with a range of days consumed reported.

Table 10 Estimated number of days incurred to undertake an **initial application** for a safety certificate under ROGS per year

Days	Number of respondents			
	Baseline	Year 1	Year 2	Final
< 10	1	-	1	2
10 to 49	-	4	5	3
50 to 99	2	-	1	-
100 to 250	4	4	2	2
> 250	-	1	-	-

In terms of days needed to **amend** applications for safety certification, in the final year most respondents reported less than 10 days (3 out of 5 respondents), or between 10 and 49 days (2 out of 5 respondents). No one reported it to take more than 50 days unlike at baseline (1 Metro company out of 4 respondents) and year one (1 Train Operating company out of 6 respondents).

Those who held certification were further asked to compare the time spent on applying for safety certification against the time spent on Railway Safety Case applications. Half of the final year respondents who answered this question (50%, 5 out of 10) reported that it has taken less time to apply for safety certification, with a further 40% (4 out of 10) 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.

3.6.4.2 Costs spent in achieving safety certification

Table 11 shows that three final year respondents (a Train Operating company, Metro company, and Tram Way company) cited costs of between £1k to £9.9k. One further Train Operating company reported a cost of between £10k to £49.9k. No one reported costs beyond these values in the final year. It is difficult to confirm any trend due to the small sample sizes answering this question across the four surveys, but it appears that **initial** application costs have reduced over the years.

Table 11 Estimated cost incurred as a result of initial application for a safety certificate under ROGS (000s GBP)

Costs (£)	Number of respondents			
	Baseline	Year 1	Year 2	Final
1 to 9.9k	1	1	1	3
10 to 49.9k	1	2	1	1
50 to 249.9k	2	1	1	-

In terms of costs associated with **amending** applications for safety certification, only one respondent (a Train Operating company) provided a value in the final year, reporting costs of £1k. This is higher than year two where two respondents (Train Operating companies) cited costs of £500, but it is lower than costs reported at the baseline and year one (between £10k to £49.9k).

Respondents were also asked to compare the cost of applying for safety certification against the costs spent on Railway Safety Case applications. Over half of the final year respondents who answered (55%, 6 out of 11) reported that costs have been less applying for safety certification, and a further 36% (4 out of 11) 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 Railway Safety Case applications.

3.6.4.3 Challenges encountered in the acquiring safety certification

Those who reported holding safety certification (11 final year respondents) were asked to indicate all the challenges they encountered during the process of achieving that certification. The findings are presented in Figure 22.

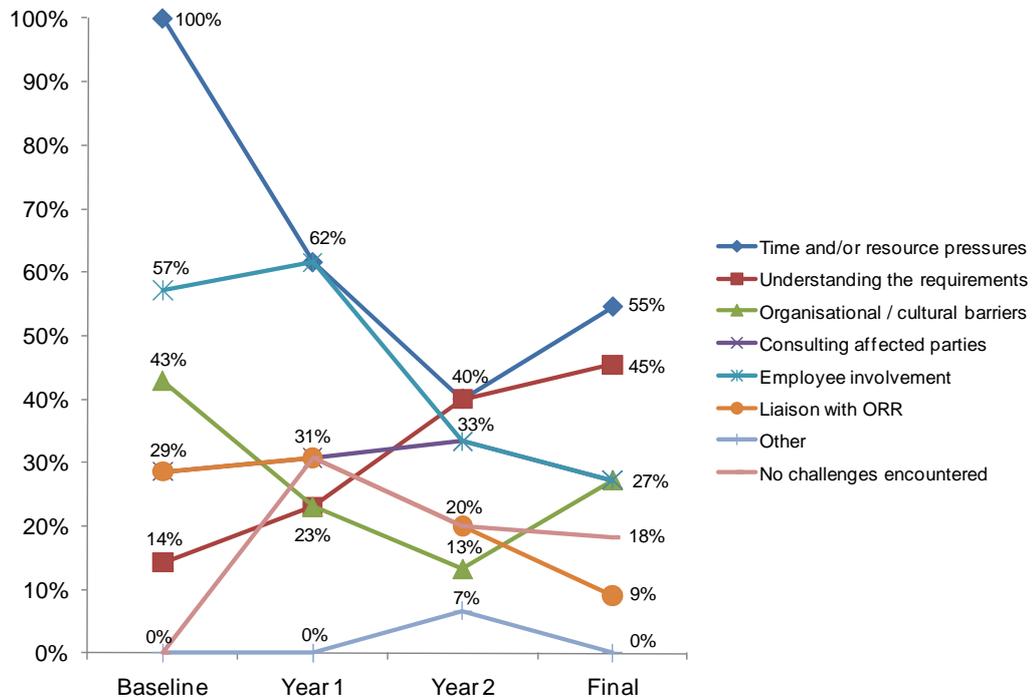


Figure 22 Main challenges in acquiring a safety certificate under ROGS

Figure 22 shows that in the final year, the most commonly cited challenge was ‘time and / or resource pressures’ reported by 55% (6 out of 11) of respondents, which was the same in previous surveys (particularly at baseline). The second greatest challenge was ‘understanding the requirements’ which was expressed by 45% (5 out of 11) of the final year respondents. Looking at the trend across time, it appears that this challenge has become more evident since the baseline year when it was only 14% (1 out of 7). Other notable trends include a reduction in the challenge posed by ‘employee involvement’ and ‘liaison with ORR’ since the baseline measure.

3.6.4.4 Changes to safety due to safety certification

Finally, duty holders were asked to what extent they felt safety certification under ROGS had affected safety. The results are shown in Figure 23.

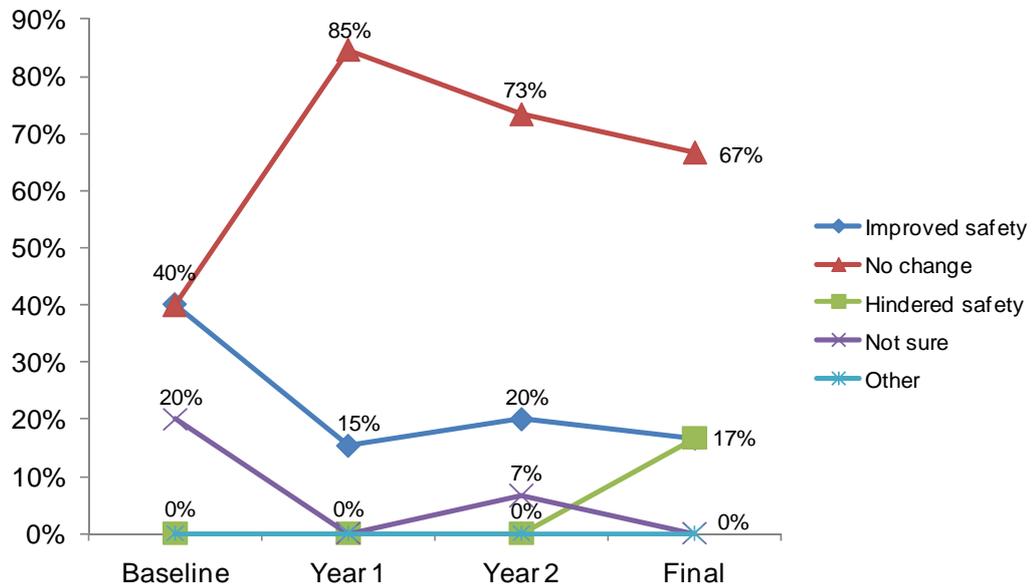


Figure 23 Responses to the question: “To what extent do you think safety certification under ROGS has affected safety?”

Figure 23 shows that the majority of the final year respondents (67%, 8 out of 12) who answered this question felt that safety has not been changed as a result of safety certification under ROGS. This is also the most common response across years one and two.

Interestingly, those who reported they felt safety had been hindered as a result of safety certification rose to 17% (2 out of 12, both Train Operating Companies) in the final year, compared with 0% in the three previous surveys.

3.6.5 Safety Authorisation

In total, 50% (9 out of 18) of the final year duty holders said they held safety authorisation under ROGS. This is similar to year two (57%, 13 out of 23), year one (45%, 10 out of 22), but higher than at baseline (29%, 5 out of 17).

Respondents were also asked to indicate all the stages in the safety authorisation assessment process their organisation had completed. The results are presented in Figure 24.

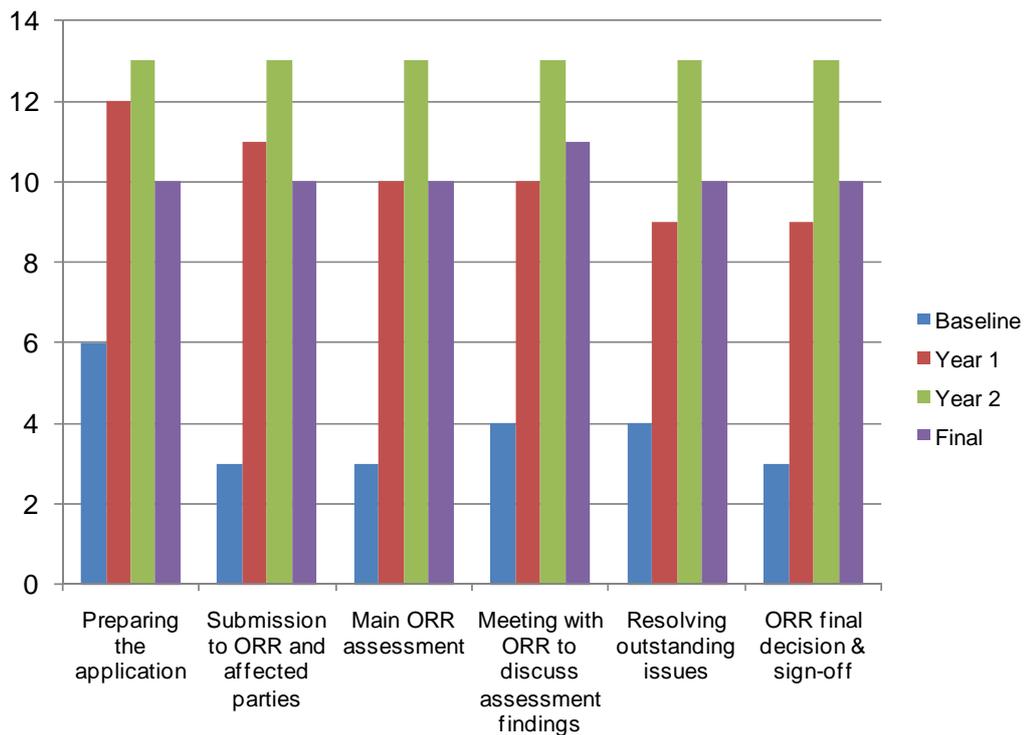


Figure 24 Stages in safety authorisation process completed by duty holders

Figure 24 indicates that 10 organisations in the final year had completed all stages of the authorisation process (despite only 9 confirming they held safety authorisation in the previous question) and one additional respondent also reported ‘meeting with ORR to discuss assessment findings’ (taking that total to 11).

All organisations who answered this question in year two had also completed all stages of authorisation. In year one, a greater number had completed the initial stages, but fewer had completed the latter stages.

When asked if improvements could be made to the application process, half of the final year respondents who answered this question (50%, 5 out of 10) said ‘no’, with only 10% (1 Metro company out of 10 respondents) saying ‘yes’. Comparing trends across years, encouragingly since the baseline, those who said ‘no’ have risen steadily. The proportion who felt improvements could be made have remained reasonably constant with a minimum of 10% (at year one and the final survey) and a maximum of 17% (at baseline).

3.6.5.1 Costs spent in achieving safety authorisation

Those who had safety authorisation were asked to report on the cost associated with **initial** applications. Only three respondents were able to provide figures, which ranged from £1.7k to £25k (both cited by Train Operating Companies). At the baseline costs cited for initial applications reached a maximum of £144k and at years one and two costs reached £50k. This potentially suggests that costs incurred for initial applications have reduced over the years.

In terms of **amending** applications for authorisation, in the final year a cost of £800 was stated (by a Train Operating company) compared with year two (£500 cited by a Train Operating company), year one (£12.5k cited by an undisclosed respondent) and the baseline (£48k cited by a Metro company).

Respondents were further asked to compare the costs of applying for safety authorisation against Railway Safety Case applications. The majority of the final year respondents who answered this question (56%, 5 out of 9) felt that costs were less under safety authorisations. A further 22% (2 out of 9) 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.

3.6.5.2 Time spent in achieving safety authorisation

Respondents gave estimates on the time involved to make initial applications for safety authorisation and any subsequent amendments. Results are shown in Table 12 and Table 13 respectively.

Table 12 Estimated number of days spent per year achieving the initial application for safety authorisation

Days	Number of respondents			
	Baseline	Year 1	Year 2	Final
< 10	-	2	1	1
10 to 49	1	1	2	3
50 to 99	1	1	2	1
100 to 250	2	4	1	2
> 250	1	1	1	1

Table 12 shows that the number of days per year spent on **initial applications** for safety authorisation ranges from less than 10 days to more than 250 days, with no discernible trends across surveys.

Table 13 Estimated number of days spent per year carrying out application amendments for safety authorisation

Days	Number of respondents			
	Baseline	Year 1	Year 2	Final
< 10	1	-	3	3
10 to 49	-	1	2	2
50 to 99	1	1	-	1
100 to 250	-	1	1	-

Table 13 also shows that for those who made **amendments** to their safety authorisation applications, the number of days spent per year ranged from less than 10 days to between 100 and 250 days per year. Although such small numbers make it hard to be confident about trends, the results do suggest that certainly in the year two and final survey, the largest number of respondents were reporting either less than 10 days or between 10 and 49 days, suggesting that amendments did not consume a significant proportion of time.

Respondents were also asked to compare the time spent on applying for safety authorisation against time spent on Railway Safety Case applications. In the final year, the majority of respondents who provided an answer (60%, 6 out of 10) reported that it took less time to undertake a safety authorisation application. Across the years, there has been a steady improvement since year one where only 33% (4 out of 12) felt this way. A much lower proportion of respondents (around 15% to

20% in the last three surveys) feel that it has taken more time to undertake safety authorisation applications.

3.6.5.3 Challenges encountered in acquiring safety authorisation

Respondents who had indicated that they had acquired safety authorisation (9 final year respondents) were asked to indicate the main challenges of applying for safety authorisation. The findings are presented in Figure 25.

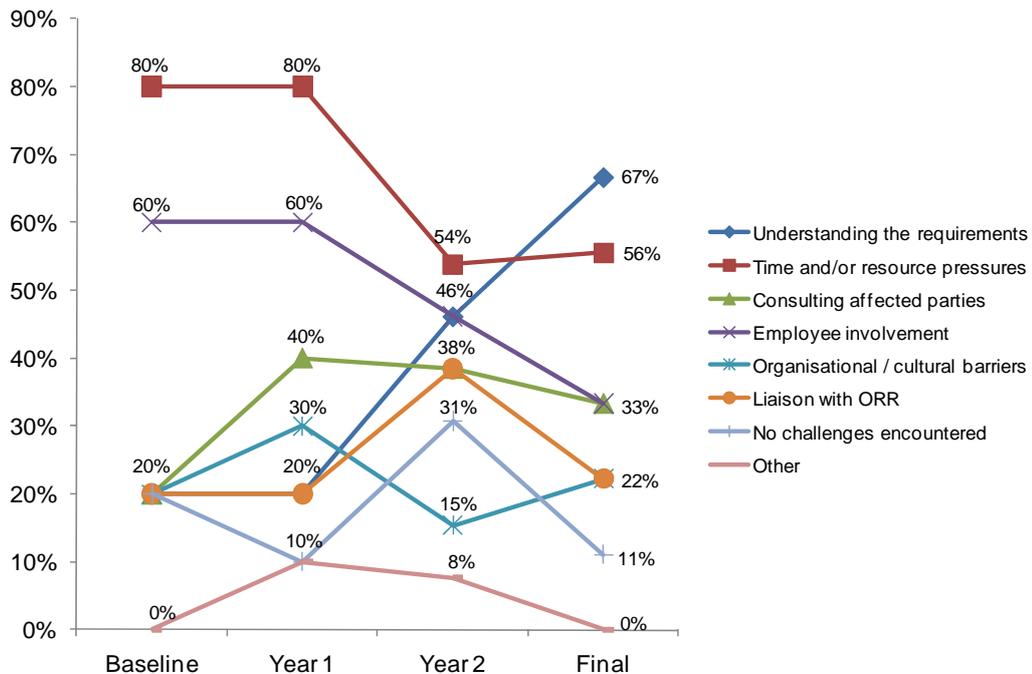


Figure 25 Main challenges in acquiring safety authorisation under ROGS

Figure 25 highlights that in the final year ‘understanding the requirements’ was the key challenge faced (67%, 6 out of 9). It is clear to see that this challenge was less common across previous surveys, where it was 20% at both the baseline (1 out of 5) and year one (2 out of 10).

‘Time and / or resource pressures’ was the second most commonly reported challenge (56%, 5 out of 9). This compared with 80% of respondents at both the baseline (4 out of 5) and year one (8 out of 10).

‘Employee involvement’ appears to have become less common as a challenge from the baseline at 60% (3 out of 5) down to 33% (3 out of 9) by the final year.

3.6.5.4 Changes to safety due to safety authorisation

Finally, respondents were asked to what extent they felt safety authorisation under ROGS had affected safety. The findings are presented in Figure 26.

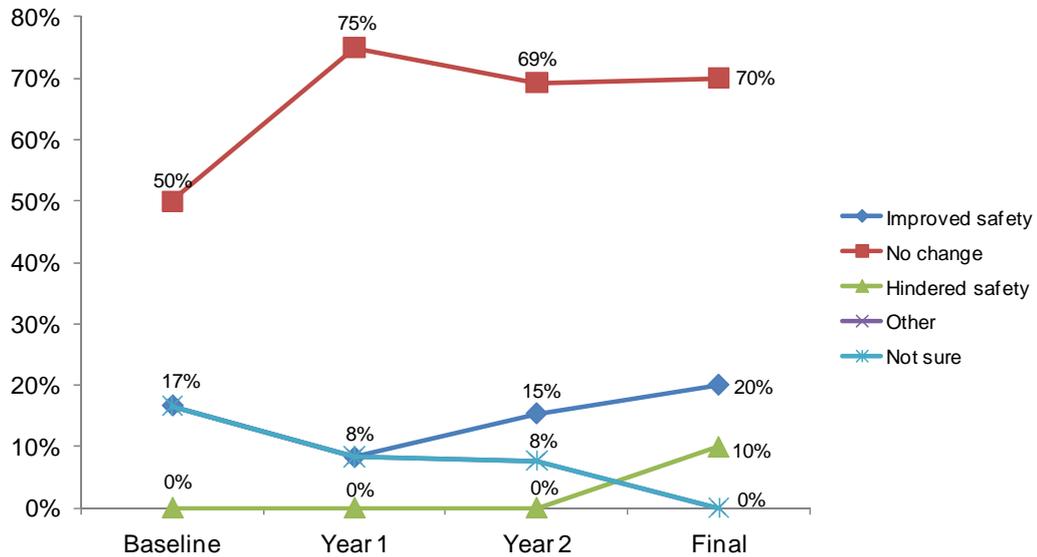


Figure 26 Responses to the question: “To what extent do you think safety authorisation under ROGS has affected safety?”

Figure 26 highlights that in the final year the majority of respondents (70%, 7 out of 10) felt that safety has not been affected by safety authorisation. This trend is also evident across previous surveys.

Furthermore, around 20% (2 out of 10) of the final year respondents felt that safety has improved as a result of safety authorisation, which was also similar to previous surveys.

It should be noted that one person in the final survey (a Train Operating company) reported that safety had been hindered by safety authorisation, whereas in previous surveys no one had claimed this to be the case.

3.6.6 Risk Assessment

All duty holders across all four surveys (18 in the final year) were asked about the main challenges in meeting the requirements of Regulation 19 (a specific duty on transport operators to carry out a ‘suitable and sufficient’ assessment of the safety risks involved in running a transport system). The main challenges are highlighted in Figure 27.

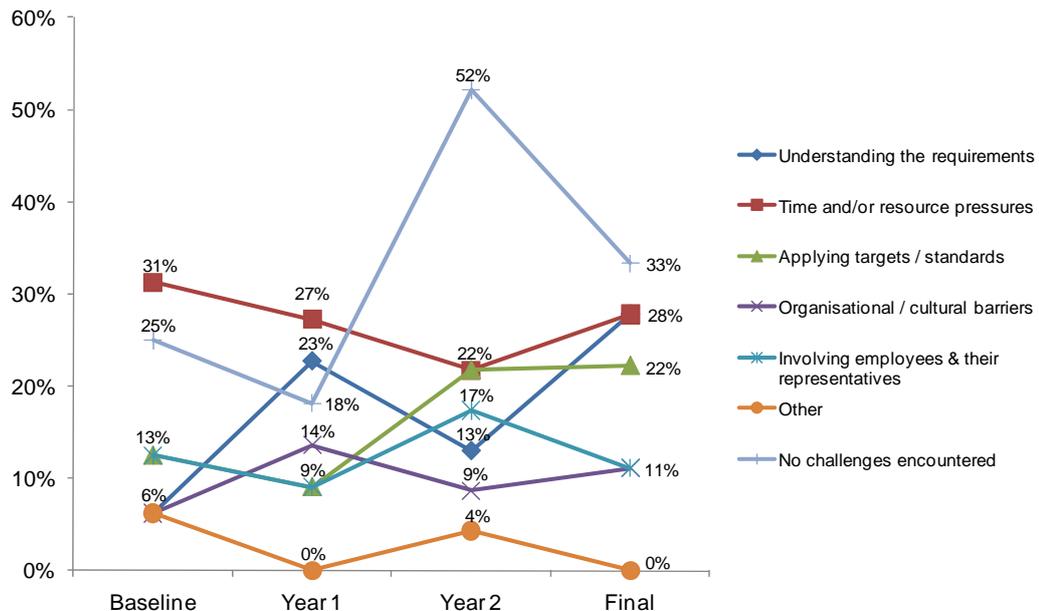


Figure 27 Main challenges faced in adapting existing risk assessment arrangements to meet the requirements of Regulation 19

Figure 27 highlights that the most common response from the final year respondents (33%, 6 out of 18) was that they had experienced ‘no challenges’. This is encouragingly higher than the baseline and year one but has dropped from a high in year two (52%, 12 out of 23).

The key challenges reported by final year respondents are ‘understanding the requirements’ and ‘time and / or resource pressures’ (both 28%, 5 out of 18). ‘Understanding the requirements’ appears to have been more of an issue during year one and the final survey, whilst ‘time and / or resource pressures’ has consistently been a challenge across the surveys.

3.6.6.1 Changes to safety

Respondents were asked how they felt about the changes to safety brought about by risk assessment under ROGS. The majority of respondents in the final year who answered (88%, 14 out of 16) felt that risk assessments have ‘not changed’ safety. This finding was also similar to previous surveys. Encouragingly, across all four surveys not one respondent has felt that risk assessment under ROGS has ‘hindered’ safety.

3.6.7 Annual Safety Report

All duty holders (18 final year respondents) were asked if they were required to compile and submit an annual safety report under ROGS. The majority of the final year duty holders did have a requirement (72%, 13 out of 18), which compares similarly to the baseline (65%, 11 out of 17), year one (86%, 19 out of 22), and year two (83%, 19 out of 23).

3.6.7.1 Time spent in submitting a safety report

Those who were required to submit safety reports gave estimates of the time involved in submitting an annual safety report per year. Results are shown in Table 14.

Table 14 Estimated number of days spent per year submitting an annual safety report under ROGS

Days	Number of respondents			
	Baseline	Year 1	Year 2	Final
< 10	6	9	12	9
10 to 49	2	7	2	2

Table 14 shows that in all years the largest number of respondents spent under 10 days submitting an annual safety report. Closer inspection of the data indicated that respondents in the final year who spent under 10 days typically spent between 1 to 5 days in total.

3.6.7.2 Costs spent in submitting a safety report

Respondents who were required to submit annual safety reports were also asked to estimate the cost incurred per year. In the final year, only three respondents could offer an estimate that ranged from £300 to £4k (cited by Train Operating Companies with the mid-point response of £500 provided by an On Track Machine Operation company). Across previous surveys, the costs are similar with a reported minimum of £250 and a maximum of £6k.

3.6.7.3 Challenges encountered in the annual safety report process

All respondents who were required to submit annual safety reports (13 final year respondents) were also asked to indicate the challenges they faced in preparing and submitting their annual safety report. The results are presented in Figure 28.

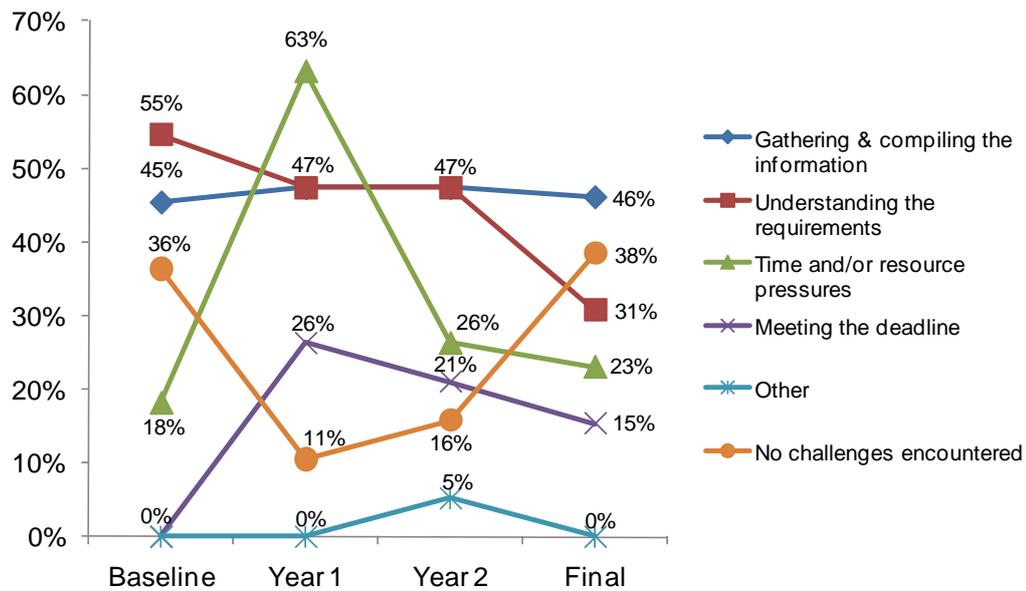


Figure 28 Main challenges encountered in preparing and submitting an annual safety report

Figure 28 shows that the key challenge reported by the final year respondents was ‘gathering and compiling the information’ (46%, 6 out of 13) which has consistently been one of the top three most common challenges cited in previous surveys.

The second most common challenge for the final year respondents was ‘understanding the requirements’ (31%, 4 out of 13). It is encouraging to see the proportion citing this as a challenge has progressively decreased since a baseline of 55% (6 out of 11).

Encouragingly, 38% (5 out of 13) of final year respondents cited facing ‘no challenges’ – the largest proportion with this response in any of the previous surveys.

3.6.7.4 Changes to safety due to annual safety reports

Finally, respondents were asked to give their views on whether they felt annual safety reports under ROGS had affected safety in their organisation. The findings are presented in Figure 29.

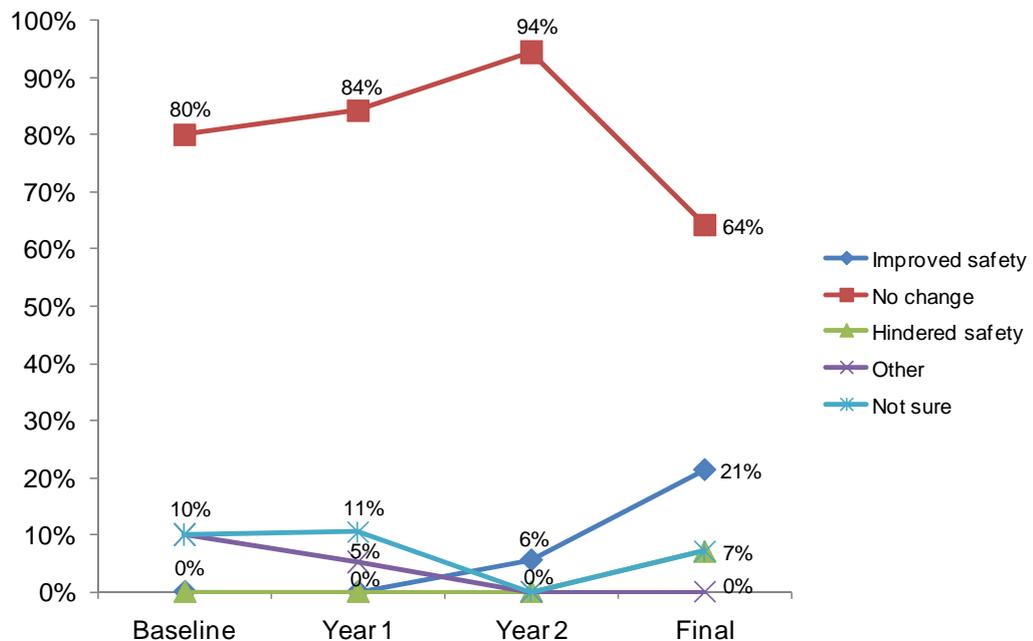


Figure 29 Responses to the question: “To what extent do you think annual safety reports under ROGS have affected safety?”

Figure 29 shows that the majority (64%, 9 out of 14) of the final year duty holders who responded to this question, felt that there had been ‘no change’ in safety as a result of annual safety reports being introduced. This trend was also clear in previous surveys.

Encouragingly, in the final year, there has been an increase in the proportion of respondents who felt annual safety reports have ‘improved safety’. Rising from 0% at the baseline and year one surveys up to 21% (3 out of 14) in the final year. However, it is noted that one individual (a Train Operating company) in the final year reported that they felt safety has been hindered, whereas in previous surveys no one had given this response.

3.6.8 Duty of Co-Operation

3.6.8.1 Challenges

All duty holders across all surveys (18 in the final year) were asked to indicate the challenges they had faced in meeting the duty of co-operation. The results are presented in Figure 30.

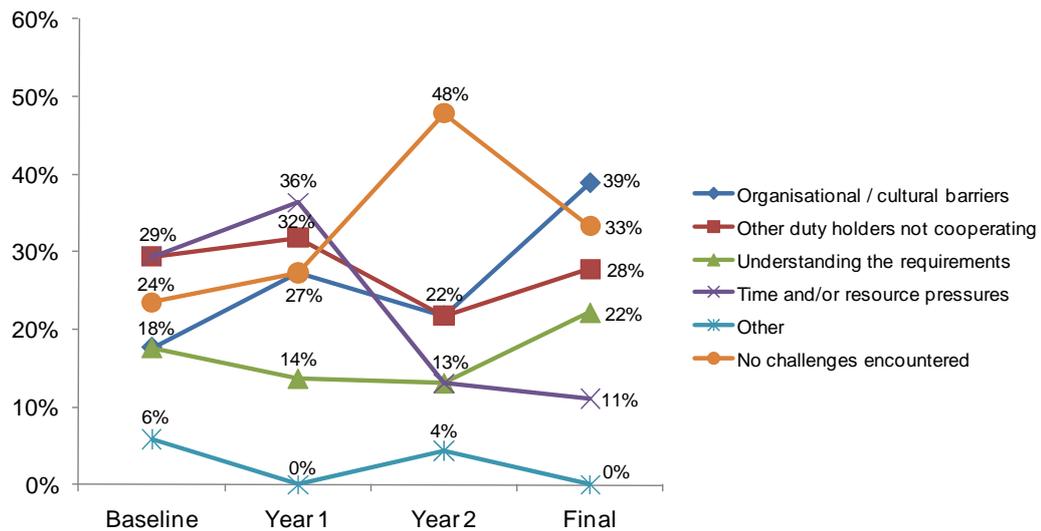


Figure 30 Main challenges encountered in meeting the duty of co-operation

Figure 30 highlights that in the final year the most common challenge cited was ‘organisational / cultural barriers’ (39%, 7 out of 18). In previous surveys, this challenge was less evident. The second most common challenge cited in the final year was ‘other duty holders not cooperating’ (28%, 5 out of 18), which was similar to previous surveys.

‘Understanding the requirements’ was the third most commonly cited challenge in the final year (22%, 4 out of 18). This has grown as a challenge when compared to previous surveys.

Encouragingly, a high proportion in the final year (33%, 6 out of 18) felt that there have been ‘no challenges’ in relation to the duty of co-operation and this was also similar to previous surveys, but down on year two where it peaked at 48% (11 out of 23).

3.6.8.2 Changes to safety

In terms of respondents’ views on the duty of co-operation affecting safety, the majority of the final year respondents who provided an answer (56%, 9 out of 16) felt that there has been ‘no change’ to safety. This is similar to the response in previous surveys. A very encouraging finding is that the proportion of who feel safety has ‘improved’ has risen since year one (10%, 2 out of 20) to the final year (38%, 6 out of 16). In addition, across all years, not one person has indicated that safety has been hindered as a result of the duty of co-operation.

3.6.9 Safety Critical Work

3.6.9.1 Challenges

All duty holders (18 final year respondents) were asked about their views regarding safety critical work. Firstly, they were asked to report the main challenges faced when meeting the duty and the results are presented on Figure 31.

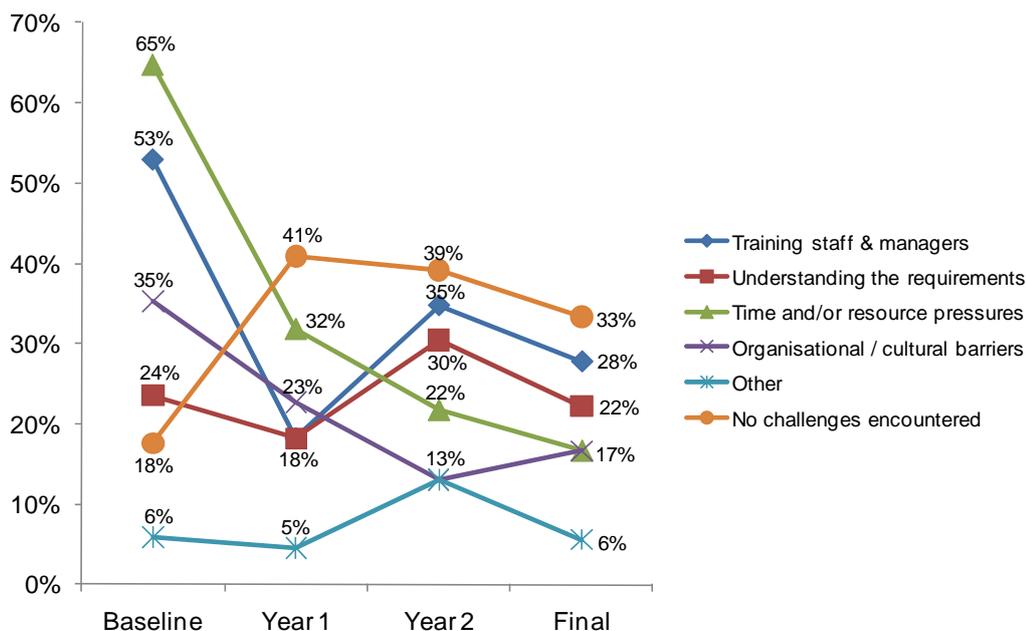


Figure 31 Main challenges encountered in meeting the safety critical work duty

Figure 31 shows encouragingly that the most common response from all the final year duty holders was that ‘no challenges’ have been encountered (33%, 6 out of 18), which is consistent with years one and two.

Nonetheless, one of the key challenges for the final year respondents was ‘training staff and managers’ (28%, 5 out of 18), although this challenge appears to have generally declined since the baseline survey. ‘Understanding the requirements’ was the next most reported challenge in the final year (22%, 4 out of 18) which is similar to previous surveys. A clear trend is that ‘time and / or resource pressures’ has steadily declined since the baseline (65%, 11 out of 17) through to the final year (17%, 3 out of 18).

3.6.9.2 Changes to safety

Respondents were also asked to comment on how they felt the duties regarding safety critical work have affected safety. The majority of the final year respondents (88%, 14 out of 16) who could answer this question reported that they felt there had been ‘no change’ to safety. Across years, the proportion who felt there had been ‘no change’ has gradually risen from the baseline (38%, 6 out of 16). However, in contrast, the proportion who felt safety has been ‘improved’ has reduced from a high at baseline (38%, 6 out of 16) to a low of 13% (2 out of 16) by the final year. Despite

this, across all years, not one respondent has claimed that safety has been 'hindered' due to the safety critical work duty.

3.6.10 Additional comments

3.6.10.1 All respondents

Following completion of Part 1 of the survey, all respondents (both **duty holders** and **non-duty holders**) were asked if they had any further comments. The following comments were made in the final year survey:

General comments:

- *"The advice and help we received from our local inspectors was very good and helpful."*
- *"Please note in regard to the questions about whether ROGS changed the way in which we managed safety, whilst fundamentally the answer was no, there did need to be changes to the way the safety verification process was managed as a result of the legal changes and the withdrawal of the ROTS regulations. This meant that the safety review group's terms of reference needed to be expanded and as a consequence this group was dissolved and the Director's Assurance Review Team established which now deals with the Safety Verification issues required by ROGS."*

Comments identified as areas for improvement were as follows:

- *"Although we are not duty holders, ROGS names us as statutory consultees in relation to applications for safety authorisation or certification, in order to satisfy the requirement of the EU Safety Directive that affected parties shall be offered opportunity to comment. We take this responsibility seriously, though in a small organisation, it can represent a significant addition to our workload."*
- *"I think that it would be a good idea that whenever there was going to be a visit from the ORR that they could also get in touch with the safety reps detailing when he was going to visit, who he was going to visit and why. I also believe that he should go out of his way to have a meeting with the safety reps to get their perspective of how H&S is going in the workplace."*

3.6.10.2 Duty holders only

Following completion of Part 2, **duty holders only** were asked if they had any further comments. The following comments were made in the final year survey:

General comments:

- *“The ROGS authorisation and certification is much better than the Safety Case. It is much better to have to supply higher level documentation and signpost as required.”*
- *“Our ORR contact has been very approachable and helpful.”*

Comments identified as areas for improvement were as follows:

- *“As we are a metro system we had to submit both an authorisation and certification submission. In order not to repeat information the certification submission referred to the authorisation document - the certification submission ended up being quite a short document. It may be worth considering if a joint application could be made.”*
- *“The issue concerning the outcome of representations made to ORR as part of the consultation process is still patchy, with the duty holder not always being advised of the outcome and whether their points have been accepted and actioned, or rejected. If rejected, there is then a potential issue of the consequences for the duty holder who raised them in their ability to comply with their SMS, which in most cases also means their railway's rule book.”*
- *“The issue of acceptance of a Safety Certificate or Safety Authorisation being notified to the affected parties, also still appears to be patchy and leaves the process hanging particularly where an affected party has made a representation. There is very little or no visibility of the final accepted document. There has been a small improvement in this area over the last year, but it is not by any means consistent.”*
- *“Defining safety critical tasks is the hardest part. Any work carried out on rolling stock or signalling or any other equipment that may affect the carrying of passengers (public) should be classed as safety critical work. It should not matter where the equipment is whether in the depot or in service. We must be clear on all aspects of safety critical work that we carry out.”*

3.7 SUMMARY OF FINDINGS

3.7.1 Survey sample

- Out of the 23 respondents in the final year survey, 18 classed themselves as duty holders. This compares to 17 duty holders (out of 26 respondents) at baseline, 22 duty holders (out of 28 respondents) in year one, and 23 duty holders (out of 27 respondents) in year two.
- Of the final year respondents, 35% were from train operating companies (TOCs).

3.7.2 Awareness and understanding of ROGS

- Respondents were asked whether they used guidance in understanding and implementing ROGS. Around 57% (13 out of 23) of the final year respondents said they did, which is a steady decline from an original 100% (25 out of 25) at baseline.
- The most popular source of help used to understand and implement ROGS by the final year respondents was ORR published guidance (92%, 12 out of 13), which is consistent with previous surveys.
- Other significant sources of guidance for the final year respondents was direct contact with ORR (62%, 8 out of 13) and RSSB published guidance (46%, 6 out of 13). These sources of guidance have remained significant over all previous surveys.

3.7.3 Industry safety culture indicators

- In the final year, the majority of respondents answered favourably to 11 out of 13 safety culture statements. A similar trend was seen across all other years.
- With regard to the statements about near miss reporting and understanding of work-related risk, the largest percentage of respondents in the final year were unfavourable. This was similar to previous surveys in relation to near miss reporting, but the response to risk understanding was at its most unfavourable in the final year.
- Additional supplementary questions were added to the year one survey in order to explore industry safety culture in more detail.
- Overall perceptions have remained positive over the last three surveys regarding management involving staff in safety related decision making and safety being a key priority.
- When asked whether staff are placed under pressure to meet operational performance objectives, across all three years the majority of respondents agreed that there are circumstances where staff are placed under pressure.

- When asked whether such pressure affects safety, 35% (8 out of 23) of the final year respondents agreed that it does, which was higher than previous surveys.
- Respondents were further asked who communicates the message that safety is a key priority. The majority of final year respondents (65%, 15 out of 23) reported that it was a mixture of senior / middle management, safety representatives and site work supervisors. Such results are in line with previous surveys, with the majority reporting that a mixture of individuals communicate that safety is a priority.

3.7.4 Feedback on ROGS and ORR

- In the final year, more respondents believed that ROGS had changed the way safety is managed (43%, 10 out of 23), than those who did not (35%, 8 out of 23). This trend is also consistent with previous surveys, with the exception of year one.
- Around 43% (10 out of 23) of respondents felt that ROGS had influenced safety related decision-making, down from year two (59%, 16 out of 27). However, there is evidence of fluctuation in terms of attitudes regarding this from year to year.
- Consistent with previous surveys, the majority of the final year respondents (70%, 16 out of 23) agreed or strongly agreed that standards of safety are the same under ROGS.
- When asked whether more could be done to reduce the administrative burden of the regulations, the most common response was 'no' (39%, 9 out of 23), with very similar proportions expressing the same view in previous surveys.
- Just over half of respondents (52%, 12 out of 23) 'requested and received help' from ORR, the same as year two and a decrease from 57% (16 out of 28) in year one.
- Nearly all of the final year respondents rated the quality of ORR help received as either good or excellent (92%, 11 out of 12). This is nearly as high as year two, and higher than baseline and year one.
- As with previous surveys, between 3 to 5 visits was the most commonly reported number of annual visits received from an ORR inspector by final year respondents.
- Also similar to previous surveys, visits by ORR inspectors were most likely to last either 1 to 2 hours (40%, 6 out of 15) or 3 to 5 hours (40%, 6 out of 15). Interestingly, there has also been an increase in visits lasting 6 to 8 hours (20%, 3 out of 15) in the final year compared to the baseline and year one (around 5%).

- As with previous surveys, the majority of respondents in the final year (61%, 11 out of 18) reported that the duration of ORR inspector visits were the same under both regulatory regimes (ROGS and Safety Case).

3.7.5 Safety Management System (SMS)

- Around 83% (15 out of 18) of the final year duty holders reported having a SMS in place. This is similar to year two (83%, 19 out of 23), year one (86%, 19 out of 22), and up on the baseline (71%, 12 out of 17).
- Of the three individuals in the final year who did not feel they had a ROGS compliant SMS in place, one did not answer the question, one said they were 'not sure' and one said 'no'. Of the two who answered 'no' or 'not sure', one was a trade union, the other a supplier of signalling equipment. Neither of which would be expected to have a ROGS compliant SMS in place.
- Most final year respondents claimed maintaining a SMS under ROGS cost between £10k to £49.9k per annum. Just over half of the final year respondents (53%, 8 out of 15) stated the costs of maintaining a SMS were similar to the costs of maintaining a safety case. In fact, across previous surveys, the majority felt costs have been similar between the two regimes.
- For final year respondents, the most common challenge in maintaining a SMS was 'communicating the SMS to the organisation' (53%, 8 out of 15), which has steadily grown as a challenge since the baseline (33%, 4 out of 12). Encouragingly 40% (6 out of 15) of the final year respondents indicated 'no challenges' – the highest proportion stating this in any given year and a positive increase from 8% (1 out of 12) at the baseline.
- The majority of the final year respondents (60%, 9 out of 15) indicated SMS under ROGS had not affected safety. This was also reflected across all previous surveys.

3.7.6 Safety verification

- In terms of introducing new / altered infrastructure or rolling stock, in the final year the majority of duty holders had either a SMS change management process (83%, 15 out of 18) or safety verification under ROGS (72%, 13 out of 18) – these results were very similar to years one and two.
- Around 10 to 49 days per annum was the most commonly reported amount of time spent in undertaking safety verification. A further three respondents reported between 100 to 250 days. These results were also generally in line with previous surveys.
- Only two respondents in year two were able to provide a cost estimation for undertaking safety verification per year. Both reported a cost between £1k to £9.9k.
- 'Identifying / appointing an ICP' and 'Knowing when to apply safety verification' were the most common challenges cited by the final year respondents (53%, 8

out of 15). The first challenge appears to have gradually declined from a baseline of 67% (6 out of 9).

- 'Understanding the requirements' has become less of a challenge from year two (58%, 11 out of 19) to the final year (40%, 6 out of 15).
- The majority of the final year responses (71%, 10 out of 14) indicated that safety has not changed because of safety verification, a finding which has increased steadily from the baseline of 36% (4 out of 11). However, a few of the final year respondents (14%, 2 out of 14) and year two respondents reported that safety has been hindered, whereas at baseline and year one, no one stated this to be the case.

3.7.7 Safety certification

- There has been an increase in the number of respondents who reported their organisation had completed each stage of the safety certification process in year one, two and the final survey, when compared to the baseline.
- Respondents across all four surveys reported a mixed number of days spent on initial applications for safety certification.
- When asked to compare the time spent in the ROGS certification process against Railway Safety Case applications, half of the final year respondents (50%, 5 out of 10) indicated that safety certification had taken less time, which is similar to previous surveys.
- A limited number of the final year respondents were able to estimate the cost involved in achieving safety certification. Three out of four respondents indicated a cost of between £1k and £9.9k for initial applications.
- Comparing the cost of ROGS safety certification against Railway Safety Case applications, the majority (55%, 6 out of 11) of final year respondents confirmed that the costs were less under safety certification, which was similar to previous surveys.
- 'Time and / or resource pressures' was the most common challenge cited by final year respondents (55%, 6 out of 11), which is consistent with previous surveys. An area to focus some attention is 'understanding the requirements' which was expressed as a challenge by 45% (5 out of 11) of final year respondents, which had increased year-on-year from a low of 14% (1 out of 7) at the baseline.
- The majority of final year respondents (67%, 8 out of 12) indicated that there had been 'no change' to safety due to safety certification under ROGS. This is consistent with years one and two.

3.7.8 Safety authorisation

- Half of all the final year duty holders (50%, 9 out of 18) had safety authorisation under ROGS. This is similar to years one and two, but higher than the baseline (29%, 5 out of 17).
- A total of 10 final year respondents reported that they had completed all stages of the safety authorisation process, somewhat similar to year two. At the baseline this was much lower, and year one showed more organisations had completed the earlier stages.
- Positively, only 10% of the final year respondents (1 out of 10) indicated that improvements could be made to the safety authorisation application process. A further 50% (5 out of 10) of responses confirmed that nothing more could be done to improve the process, up from an original 17% (1 out of 6) at the baseline.
- Initial application costs for safety authorisation were reported in the final year to range from £1.7k to £25k. This appears to be down on the maximum values quoted of £50k in years one and two, and £144k at baseline. This possibly indicates that costs have reduced over the years. Costs incurred for amending applications quoted by one final year respondent were £800, similar to year two, but much lower than year one and baseline.
- Most of the final year respondents (56%, 5 out of 9) declared that safety authorisation application costs have been less under ROGS than Railway Safety Case applications. In previous surveys, the dominant view has been that costs have been the same under both regimes.
- The majority of the final year respondents (60%, 6 out of 10) confirmed that it has taken less time to undertake safety authorisation applications than Railway Safety Case applications, which is an increase compared with year one at 33% (4 out of 12).
- The most common challenge reported by the final year respondents in acquiring safety authorisation was 'understanding the requirements' (67%, 6 out of 9), which has steadily increased from 20% at the baseline and year one. This suggests that this area might be an area for development.
- The majority of final year respondents (70%, 7 out of 10) cited that safety authorisation had not affected safety. This trend was also evident across previous surveys.

3.7.9 Risk assessment

- Many final year respondents (33%, 6 out of 18) indicated that there have been no challenges encountered in adapting existing risk assessment arrangements to meet the requirements of Regulation 19, which is positive albeit down from a peak of 52% (12 out of 23) in year two.

- The majority of respondents in the final year (88%, 14 out of 16) indicated that there has been no change to safety as a result of changes to risk assessment. This is consistent with previous surveys.

3.7.10 Annual safety report

- The majority of final year respondents (72%, 13 out of 18) reported needing to compile and submit an annual safety report under ROGS. This is largely in line with previous surveys.
- The majority of final year respondents indicated that the number of days spent submitting an annual safety report amounted to less than 10 days (9 out of 12 respondents) and in fact, more typically took between 1 to 5 days in total.
- Three final year respondents estimated the cost to compile an annual safety report ranged from £300 to £4k. Across previous surveys, the costs are similar with a reported minimum of £250 and a maximum of £6k.
- The most commonly reported challenge for the final year respondents was 'gathering and compiling the information' (46%, 6 out of 13). This has consistently been one of the top three most commonly cited challenges across previous surveys. Most encouragingly, 38% (5 out of 13) of the final year respondents confirmed there were 'no challenges'; the largest proportion of this response across all four surveys.
- The majority of final year respondents (64%, 9 out of 14) also indicated that annual safety reports had not affected safety. Across previous surveys, the majority view was the same. Encouragingly, 21% (3 out of 14) of respondents said that safety had improved as a result of annual safety reports, the highest proportion with this view across all four surveys.

3.7.11 Duty of co-operation

- The most commonly cited challenge for the final year respondents was 'organisational / cultural barriers' (39%, 7 out of 18). In previous surveys, this challenge was less evident. 'Other duty holders not cooperating' was the second most common challenge (28%, 5 out of 18) in the final year. Encouragingly, 33% (6 out of 18) of the final year respondents felt that they have not encountered any challenges.
- The majority of final year respondents felt there had been no change to safety as a result of the introduction of the duty of co-operation. This was also the most common view in previous surveys. Encouragingly, 38% (6 out of 16) of the final year respondents indicated that safety had improved, which was an increase from 10% (2 out of 20) in year one.

3.7.12 Safety critical work

- Encouragingly, when asked about the challenges encountered in meeting the safety critical work duty, the most common response in the final year was 'no challenges' (33%, 6 out of 18). Aside from this, 'training staff and managers'

and 'understanding the requirements' were the most commonly cited challenges.

- The majority of final year respondents (88%, 14 out of 16) indicated that there had been 'no change' in safety as a result of the safety critical work duty. This is a marked increase compared with the baseline of 38% (6 out of 16). In balance however, those who said safety had improved did reduce from a high at the baseline (38%, 6 out of 16) to a low by the final year (13%, 2 out of 16).

4. INDUSTRY INFLUENCE NETWORK WORKSHOPS

4.1 INTRODUCTION

In order to develop a qualitative profile of safety in the rail industry two Influence Network (IN) workshops were undertaken with a representative sample of key rail industry stakeholders. The first 'baseline' workshop was held in September 2007 and the second 'final' workshop was held in December 2009. This enabled an assessment of any changes occurring across the three-year period. The workshops involved examining a series of possible factors which may be influencing safety in the rail industry, in terms of their current quality (or standard), as well as the importance of their influence. The workshops enabled an identification of where the key potential risk areas were, based on qualitative feedback from participants, as well as an understanding of why these were risk areas.

The following section provides an outline of the workshop methodology (including the bespoke rail industry IN model), workshop participants at both workshops and then presents the findings from the second workshop, alongside a direct comparison with the baseline.

4.2 WORKSHOP METHODOLOGY

4.2.1 The Influence Network (IN)

The tool adopted to structure the assessment of the benefits and their associated costs in GL Noble Denton's evaluation of the Railway Safety Case Regime (RSCR) was the IN approach. The underlying concept of the IN is that the immediate (direct) causes of an incident need to be seen in the wider context of the way ongoing operations are organised, as well as within the pervading corporate strategy influences and the wider environmental factors affecting the business. These 'domains' of influence are clearly interrelated and within the IN model are represented as hierarchical levels as follows:

- **Environmental level influences** - these cover global influences such as the wider political, regulatory, market and social influences which impact the policy decisions taken by Duty Holders.
- **Strategy level** - these comprise the strategy, policy and corporate level factors that determine the organisational processes including interface management, contracting and supply chain management.
- **Organisational influences** - these influence the direct 'level' and reflect the culture, procedures and behaviour promulgated by the organisation in operations.
- **Direct performance influences** - these directly influence the likelihood of an accident being caused in terms of human or hardware performance or external factors with an immediate bearing on safety (e.g. diminished 'Situational Awareness' for train drivers may contribute to SPADs).

4.2.2 Rail industry Influence Network (IN) model

The generic IN was tailored for use in the rail industry workshops to ensure all the relevant factors were represented. Figure 32 highlights the rail industry IN model used during both the baseline and final IN workshop.

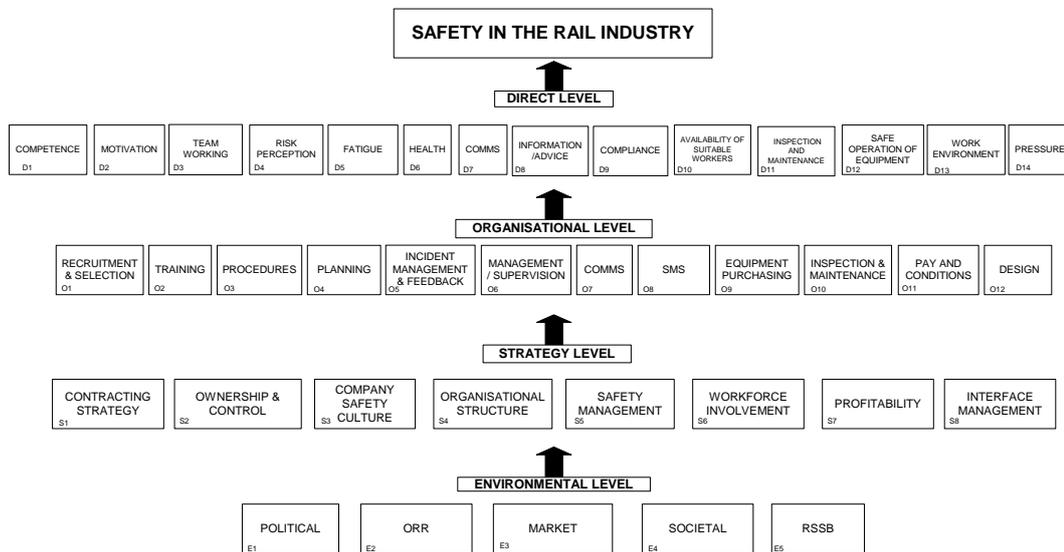


Figure 32 Rail industry Influence Network model

4.2.3 Aim of the workshop

The overarching aim of the workshops were to develop a profile of safety in the rail industry (baseline and final measure) based on qualitative data gathered from participants. This was achieved by taking each potential influencing factor from the rail industry IN (as highlighted in Figure 32) in turn to:

- **Rate the quality of that factor** on a scale of 0 to 10, with '0' representing poor and '10' representing excellent.
- **Weight the importance of that factor** on a scale of 'high' to 'low'.

It should be noted that during the baseline workshop participants were asked to try and rate and weight factors in relation to the industry prior to ROGS fully coming into force in order that their feedback could contribute towards the baseline measure. Participants were also asked to indicate where they anticipated seeing changes as a result of ROGS.

In the final workshop (December 2009) participants were asked to rate and weight factors at that point in time. In addition, after having rated and weighted the factors, participants were shown how factors had been weighted and rated in the baseline workshop and if there were any significant differences, they were asked to explain the reasons behind the differences. In particular, if there had been a significant improvement or deterioration in the standard of a factor participants were asked if

this change had been caused by ROGS or another industry influence (or 'confounding factor').

4.2.4 Benefits of the approach

The IN workshop approach provided a number of benefits, including:

- Providing a structured means of establishing the 'state of play' at different points in time.
- Providing a means of gathering qualitative and some quantitative data.
- Could be used to evaluate changes and the reasons for those changes.
- Could be used to identify any confounding factors.
- Could be used to collect information on what indicators of change participants would expect to see.
- Provided moderated input from a range of rail industry stakeholders.

4.2.5 Workshop steps

In order to address the main aims of the workshop (outlined above in Section 4.2.3) and gather information to develop a profile of safety in the rail industry, participants at both workshops were guided through the following five steps.

Step 1 - Burning issues

Step 1 was designed in order to provide workshop participants with an early opportunity to provide input on:

- what they believe the key factors are influencing safety in the rail industry;
- where they see ROGS having / having had the most impact; and
- what they hoped to gain from the IN workshop.

Step 2 to 5 - Rate and weight all Direct (Step 2), Organisational (Step 3), Strategy (Step 4) and Environmental (Step 5) level factors

In order to rate the quality of each IN factor, participants were asked to rate each factor on a scale of 0 to 10, with '0' being poor and '10' being excellent. For example, in terms of the Direct level factor 'Compliance', participants were asked to consider the extent to which people working in the rail industry comply with rules, instructions, procedures etc.

In order to weight the relative importance of each factor in terms of its impact on safety in the rail industry, participants were asked to weight the importance of each factor on the following scale:

- Low
- Low-Medium
- Medium
- Medium-High
- High

For example, in terms of the Direct level factor ‘Compliance’, participants were asked to consider how important it is in terms of safety in the rail industry compared with the other Direct level factors.

Additional considerations

Whilst working through each of the IN factors, participants were also asked to consider and explain the following:

- Why they felt the way they did.
- Which factors will be / have been most affected by the introduction of ROGS.

At the final workshop and only where relevant, participants were also asked to consider why their ratings and weightings had changed from the baseline and whether changes had been due to the introduction of ROGS or other confounding factors.

4.2.6 WORKSHOP PARTICIPANTS

A representative range of stakeholders from throughout the rail industry were invited to attend both the baseline and final IN workshops. GL Noble Denton also endeavoured to get the same organisations represented at both workshops to ensure direct comparisons could be drawn. Table 15 highlights the participants whom attended.

Table 15 IN workshop participants

Organisation	Organisation type	Description / industry area	Workshop attended
ATOC	Association / TOC	The Association of Train Operating Companies (ATOC) is an unincorporated association owned by its members. It was set up by the train operators formed during privatisation of the railways under the Railways Act 1993.	Both
Heritage Railway Association	Association / Heritage	The Heritage Railway Association represents the majority of heritage and tourist railways and railway preservation groups within both the U.K, and Ireland.	Both

Organisation	Organisation type	Description / industry area	Workshop attended
		There are also several overseas members.	
Network Rail	Infrastructure (over ground)	Network Rail owns and operates Britain's rail infrastructure.	Both
Transport for London	Metro system	London Underground	Both
ASLEF	Union (train drivers)	ASLEF is Britain's trade union for train drivers. Its 18,500+ members are employed in the train operating companies, the freight companies, London Underground and some Light Rapid Transport.	Both
Transport Salaried Staffs' Association (TSSA)	Union	TSSA is an independent, UK-based trade union for the transport and travel trade industries. It has 30,000 members in the UK and Ireland, working for the railways and associated companies, London Underground and Transport for London, the travel trade, and in shipping, ports, road haulage and buses.	Both
Tubelines	Infrastructure (underground)	Tube Lines has a 30 year Public Private Partnership (PPP) contract with London Underground for the maintenance and upgrade of all the infrastructure on the Jubilee, Northern and Piccadilly lines.	Baseline workshop only
Confederation of Passenger Transport UK (CPT)	Association (light rail)	The Confederation of Passenger Transport UK (CPT) is recognised by Government as the voice of the coach, bus and light rail industries and is the focus for consultation and negotiation on national and international legislation, local regulations, operational practices and engineering standards.	Baseline workshop only

Table 15 highlights that the same six rail industry stakeholders attended both the baseline and final workshop and two further stakeholders (Tubelines and CPT) attended the baseline workshop only.

Prior to the workshops all confirmed participants were issued with a workshop briefing note which outlined the aim of the event, the steps to be taken and also

provided a list of the rail industry IN factors and their associated definitions. A copy of the briefing note from the final workshop can be found in Appendix B.

4.3 IN WORKSHOP FINDINGS

4.3.1 Introduction

The detailed baseline IN workshop findings have already been published as part of the baseline 'Monitoring Report 1'¹ and therefore it is not the intention of this final report to simply replicate these findings. Instead, this following section presents all of the findings from the second and final IN workshop alongside a comparison of the ratings and weightings from the baseline workshop.

4.3.2 Burning issues

Participants in the final workshop were initially asked how they felt ROGS had impacted on the rail industry since being fully rolled-out in October 2006. The different organisations responded as follows:

“ROGS has acted as a “wake up call” for some heritage railways as they were exempted from having a Safety Case under previous regulations. Safety Management Systems are now mostly complete or nearing completion which we consider as a good development. We have not yet been able to obtain confirmation as to whether or not ROGS legally applies to volunteers and we do need a clear ruling that they DO apply. The heritage sector was initially opposed to Safety Verification due to difficulties in providing Independent Competent Persons but we currently have 15 candidates on an ICP training course (supported by ORR) at Birmingham University. This will hopefully result in the heritage sector having a nucleus of trained ICPs.” - Heritage Railway Association

“The previous safety case regime was a lot more bureaucratic and therefore ROGS has reduced the time burden for us. Although we already had safety cases in place, there was some tweaking required to have them in a ROGS compliant format. The good thing is we don't have to update them every month like we did previously, which frees up a lot of time that can be spent on more 'hands-on' work”. – Transport for London (TfL)

“There were many industry developments already underway, which cannot be attributed to ROGS specifically. The current framework between TOCS and Network Rail is very good, with a clear demarcation of responsibilities between the two. Previously there were more issues with Network Rail, as they were not used to not leading. For example, there were issues with track compatibility. However, things are changing for the better and it's important to highlight this point”. – Association of Train Operating Companies (ATOC)

“The need to reissue a new safety certificate when a rail operator has had a name change seems nonsensical given that operations are the same”. - ASLEF

“When ROGS was initially introduced there was an issue with consultation, but since this time there has been more consultation and better involvement of representatives”. - **Transport Salaried Staffs’ Association (TSSA)**

“ROGS have helped in cutting down a lot of red tape and enabled us go back to the drawing board on some safety issues. We now have an interactive safety Management system and people on the frontline generally know what is expected of them. We do not have any specific complaints about ROGS”. - **Network Rail**

4.3.3 Quality ratings

4.3.3.1 Direct level factors

Table 16 highlights the quality ratings assigned to factors at the Direct level of the rail industry IN model (see Figure 32 for the model) during the final workshop. The workshop group either assigned a ratings range, which often reflected differences within the overall rail industry, or they came to a consensus and gave one single rating.

Table 16 Quality ratings assigned to Direct level factors during the final workshop

Direct Level Factors / Quality Ratings	0	1	2	3	4	5	6	7	8	9	10
D1 - Competence								7 to 8			
D2 - Motivation							5 to 10				
D3 – Team working								7 to 8			
D4 – Risk Perception								7 to 8			
D5 - Fatigue							5 to 7				
D6 - Health								7 to 8			
D7 – Communications									8		
D8 - Information / Advice								7 to 8			
D9 - Compliance								7 to 8			
D10 - Availability of Suitable Workers								7 to 8			
D11 - Inspection and Maintenance								6 to 8			
D12 – Safe Operation of Equipment								6 to 8			
D13 - Work Environment								6 to 8			
D14 - Pressure								6 to 7			

Note: The rating scale ranges from ‘0’ indicating poor up to ‘10’ indicating excellent

In addition to the quantitative ratings assigned in Table 16, the workshop group also discussed each factor in turn and provided reasons to support their ratings assignment. Furthermore, after having assigned a rating, participants were shown

the ratings assigned during the baseline workshop and where there was a significant difference they were asked to comment on the reasons for that difference. The feedback provided was as follows:

- **D1 – Competence (7 to 8)** – it was felt that many job roles in the rail industry are highly specialised (e.g. train drivers, signallers etc.) and people are very experienced and therefore competent in their roles. Furthermore, a strong competency framework based on a points system is at the heart of competency in the rail industry. People are subject to ongoing continual assessment to ensure competency remains high. These positive characteristics generated a rating of 8. However, where there are some weaknesses are with agency staff (hence the slightly lower rating of 7). Agency workers can be placed in a different environment every day reducing familiarity with their surroundings. In addition, this may be further affected by agency workers speaking foreign languages causing difficulties with understanding. Despite this, it was felt that training had improved over the years and people have learnt from incidents. There was no significant change from the baseline rating of 7 to 9.
- **D2 – Motivation (5 to 10)** – the large range in ratings reflected the fact that heritage sector workers are volunteers and are therefore 100% motivated to do the job (hence the rating of 10). However, the rest of the rail industry recognised the significant impact of the current economic climate. It was explained that the market for passenger trains has been relatively buoyant throughout the economic downturn, with increased numbers of passengers, but in contrast, the freight industry has effectively collapsed. Furthermore, there has been more automation and more pressure on workers to meet efficiency targets, both of which have impacted on motivation levels. These issues all resulted in a rating of 5 for the rest of the rail industry. These ratings had reduced significantly compared with the baseline (8 to 9) and it was felt this was largely due to the economic downturn. However, it was also noted that the “railway family” does not exist anymore and jobs are not passed on down through the generations. This was felt to have contributed to an ‘alienation’ from the workplace, which may also be contributing to motivation levels.
- **D3 – Team working (7 to 8)** – whilst it was acknowledged that the role of train drivers was largely one of working alone, it was generally recognised that there was still evidence of good team working. Some cited initiatives such as buddy systems and building upon values and workplace behaviours as helping to improve teamwork. It was also felt that ticket and other offices were good places to build teams as people were together more often. The heritage sector felt that because it was comprised of volunteers it had a stronger ‘family feel’. There were no significant differences compared with the baseline ratings (8).
- **D4 – Risk Perception (7 to 8)** – most felt that risk perception in the industry was good (particularly amongst those in a safety critical role, such as track side staff, signallers and drivers). A lot of work is ongoing in the area of human factors and more ‘lessons learnt’ from incidents are being shared.

There are also safety awareness days being run for workers, so people's risk awareness is improving all the time. However, areas of weakness included office staff, who may hold the attitude "safety is someone else's job" and also where systems have changed and people need to learn where the new risks are. There were no significant differences compared with the baseline ratings (7).

- **D5 – Fatigue (5 to 7)** – it was acknowledged that fatigue is still an issue in the industry, despite designing rosters to try and manage fatigue. It was noted that long working hours can be exacerbated by potentially long commutes for some staff. This was a particular problem in the heritage sector where volunteers may also be holding down a full time job outside of their heritage role. It was also felt that drivers in the freight sector were more likely to face fatigue as it was an industry driven by demand and therefore drivers could suddenly find themselves working long hours and doing night shifts. The current economic climate has reduced this issue for now, but with an economic upturn this issue would re-surface. In the passenger sector, it was identified that duty managers were more likely to suffer fatigue due to stress and staff shortages. It was noted how identifying and managing fatigue can also be difficult, particularly as it's hard to influence workers own personal time. This is being addressed by some organisations providing occupational health information to workers on fatigue management. The baseline ratings were identical (5 to 7).
- **D6 – Health (7 to 8)** – on the whole, recognising the potential for workers to suffer stress and musculoskeletal disorders, the group felt that initiatives such as medicals, education about living healthily, free health assessments etc. had been successful in improving general health levels. The baseline ratings were nearly identical (6 to 8).
- **D7 – Communications (8)** – it was generally felt that communications had improved as companies had invested resource in this area; although a few also commented that the frequency of communications may potentially be too high. The rating of 8 was an improvement from the baseline (5 to 7), but the group agreed that it was not necessarily as a direct result of ROGS but rather because the industry actually needed these changes. However, the group did agree that ROGS had given them an "appropriate framework" to improve communications. Because of the reduction in red tape, one organisation said they had been able to develop a scaled down staff handbook and an interactive version of their safety management system.
- **D8 - Information / Advice (7 to 8)** – the group felt that this factor was of good quality with clearer rule books, and easily accessible information and advice especially facilitated by greater use of the web (intranets and the internet). Compared to the baseline ratings (5 to 6) perceptions had improved and were linked to improvements in technology (as opposed to ROGS).
- **D9 – Compliance (7 to 8)** – the group rated this factor relatively highly because they felt that the rules provided a good and familiar way of working, so there was no incentive not to comply. Furthermore, cabin technology made

it possible to monitor driver behaviour anyway, so this has increased compliance. An area where compliance was seen to be less robust was for workers engaged in project activities where novel situations and time pressures could induce non compliance. The baseline ratings were found to be nearly identical (6 to 8).

- **D10 - Availability of Suitable Workers (7 to 8)** – there was a diversity of views around this factor. Some felt there will never be a constant supply of suitably skilled workers and as people leave roles it can be hard to fill vacancies, resulting in other people’s roles increasing to cover the gaps. Finding suitable platform staff was also felt to be a challenge, as was finding suitable people to manage volunteers in the heritage sector. Licensed signal engineers were also felt to be difficult roles to suitably fill. However in contrast, salaries for operational frontline workers, such as drivers, were thought to be good and this ensured a healthy supply of potential candidates. The baseline ratings had a greater range (4 to 9) with the lower scores reflecting difficulties resourcing one-off complex projects; this situation was not mentioned in this workshop.
- **D11 - Inspection and Maintenance (6 to 8)** – comments suggested that this factor was generally good but that there was still room for improvement. The baseline ratings were nearly identical (7 to 8).
- **D12 – Safe Operation of Equipment (6 to 8)** – this factor was discussed in relation to competency and it was noted that “we do it well”. However, it was proposed that due to some of the older rolling stock, a value of 6 should be assigned, hence a final range of between 6 and 8. The baseline ratings were nearly identical (7 to 8).
- **D13 - Work Environment (6 to 8)** – there was a relatively mixed range of views on this factor. It was commented on that the work environment has improved in some areas due to a younger train stock and investment in improving stations. However, the continued use of older stock still contributes to noise levels and maintenance work carried out outside can be difficult in poor weather conditions. In one case, technological improvements in the clarity of PA systems had caused the noise to seem louder, which resulted in complaints from local residents. However, there had been an improvement from the baseline rating of 5, although the group explained that this change was not due to ROGS but due to stock and equipment changes.
- **D14 – Pressure (6 to 7)** – the group agreed that generally pressure was high in the industry and therefore the quality rating given was not so high (although they acknowledged pressure levels could be different for different groups). Pressure existed for station managers from working long hours and multiple demands from their senior managers and external customers (i.e. the public). Other station staff were also under ‘tremendous’ pressure on the metro system, particularly because of the large passenger numbers, particularly around holiday times. It was felt that the rail industry is generally busier than it was a few years ago. Another participant indicated that there is an expectation to ‘do more with less’, which results in increased pressure. The

baseline ratings showed a greater range (4 to 8), but the ratings from this workshop still fell within this range, so the group did not feel that there had been any significant change over the years.

4.3.3.2 Organisational level factors

Table 17 highlights the quality ratings assigned to factors at the Organisational level of the rail industry IN model (see Figure 32 for the model). As with the Direct level, the workshop group either assigned a ratings range, which often reflected differences within the overall rail industry, or came to a consensus and gave one single rating.

Table 17 Quality ratings assigned to Organisational level factors during the final workshop

Organisational Level Factors / Quality Ratings	0	1	2	3	4	5	6	7	8	9	10
O1 - Recruitment and Selection							6 to 8				
O2 - Training									8 to 9		
O3 - Procedures									8 to 9		
O4 - Planning								7 to 9			
O5 - Incident Management + Feedback									8		
O6 - Management / Supervision								7 to 8			
O7 - Communications								7 to 8			
O8 – Safety Management Systems								7 to 9			
O9 - Equipment Purchasing							6 to 8				
O10 - Inspection + Maintenance								7 to 8			
O11 - Pay + Conditions								7			
O12 - Design								7 to 8			

Note: The rating scale ranges from '0' indicating poor up to '10' indicating excellent

In addition to the ratings assigned in Table 17, the workshop group also discussed each factor in turn and provided reasons to support their ratings assignment. As with the Direct level factors, after having assigned a rating, any notable differences with the baseline ratings were discussed. The feedback provided was as follows:

- O1 - Recruitment and Selection (6 to 8)** – it was reported that on the whole, the quality of this factor was high due to rigorous selection and assessment approaches such as assessment centres and psychometric tests for front line staff and train drivers. But it was noted that online psychometric tests could potentially preclude suitable candidates. Additionally, the point was raised that the selection and assessment of trackside staff was not so good due to the employment of agency staff. The heritage sector stressed that it accepted most candidates due to the voluntary nature of the sector. Finally, one

participant emphasised that selection of drivers still favours those who are white male which he felt was not representative of the British population. As a result of these comments, the group suggested a score of 7 to 8, with the heritage sector feeling a 6 was more appropriate, hence a final range of between 6 and 8. The baseline ratings were higher (9 to 10), although the comments made were similar, and therefore the workshop group felt there was no real reason for the change in ratings.

- **O2 – Training (8 to 9)** – a brief discussion by the group on this factor elicited the belief that training is now significantly better. The high rating of between 8 and 9 reflected this. The baseline rating was nearly identical (7 to 9).
- **O3 – Procedures (8 to 9)** – the group rated this factor highly because comments indicated that there were many well written procedures in existence, and organisations had produced staff handbooks that had been well received. The baseline ratings were lower (6 to 8) also indicating an improvement in this factor. The group explained that near misses caused by a lack of procedures had reduced, as had SPADs. Also, irregular working was being monitored more proactively. Other comments stated that people take more responsibility for safety now. It was noted that the positive change was not necessarily because of ROGS.
- **O4 – Planning (7 to 9)** – it was felt that the infrastructure planning process is tighter than it was before, having learnt from mistakes of the past. Also, organisations have to conduct risk assessments, even if this is just a qualitative assessment, and this all feeds into the planning process. From a TOC perspective, planning has to be excellent or else passenger trains would not run on time. However, it was also noted that planning is still not as good as it could be in some areas, so there is still room for improvement. The baseline ratings were lower (6 to 7) because during the baseline workshop participants indicated they were aware of a few projects that had not been delivered on time.
- **O5 - Incident Management & Feedback (8)** – in terms of incident reporting on an organisational level, under-reporting would still appear to be an issue within some companies. The importance of inputting incident data accurately was also highlighted. In terms of industry wide reporting, the SMIS system was felt to be useful, although not all parts of the rail industry uses this. For metros, the best way of benchmarking performance was on an international level with other metro systems. It was felt that the communication of incidents was generally better. The baseline rating was slightly lower (7).
- **O6 - Management / Supervision (7 to 8)** – there was general acknowledgement that greater consistency was needed in this area, although one participant highlighted a recent spate of industrial action which underlined that management / supervision could be better. TOCS were felt to generally attract a high quality of staff at management/supervisory levels. The baseline rating was almost identical (6 to 8).

- **O7 – Communications (7 to 8)** – advances in technology were felt to have improved communications and access to information. For example, new media platforms such as ‘blogs’ are being used to communicate widely to workers and the public about all issues, including safety. The metro system has recently issued a managers handbook to everyone at that level. The baseline ratings were a little lower (6 to 7) indicating that communications may have improved, and the group suggested this was due to technological advances, rather than as a direct result of ROGS. ATOC commented specifically on improvements made by Network Rail and said that they seemed more “in control” than before.
- **O8 – Safety Management Systems (7 to 9)** – in general it was felt that safety management systems were good and improving all the time. Network Rail believed that some of the improvements were directly to the introduction of ROGS, feeling that ROGS had given more flexibility in the design of their safety management system. The baseline ratings were largely similar (8 to 9).
- **O9 - Equipment Purchasing (6 to 8)** – in general this factor was felt to be good across the industry, with one participant stating that it is broadly accepted that “safety costs money” and therefore large investments are readily made. The group acknowledged that there had been huge investment in new rolling stock, signalling and stations recently. The heritage sector was very different in that it relied on equipment that had become redundant. As a consequence, heritage suggested a rating of 6, with the remaining areas allocating a 7 to 8, hence a final rating of 6 to 8. The baseline rating was higher (9) indicating a possible decline in the quality of equipment purchasing. However, it was explained that this was due to user requirements changing leading to a need to make additional equipment changes.
- **O10 - Inspection & Maintenance (7 to 8)** – it was felt that there are not as many issues on the trains as there used to be, with punctuality and reliability increasing. It was acknowledged that if inspection and maintenance were not good, this would be evident in poorer safety figures which has not been the case. Furthermore, it was commented that the industry had come a long way since accidents like Hatfield. The baseline ratings were identical (7 to 8).
- **O11 - Pay & Conditions (7)** – individual ratings on this factor varied from the heritage sector (where pay is not a consideration for volunteers), through to commercial operations where the quality of pay and conditions is deemed to be ‘moderate to excellent’. However, it was acknowledged that the economic climate has had an impact where for some, pay has been frozen. The baseline ratings were near identical (6 to 8).
- **O12 – Design (7 to 8)** – this factor was felt to be of relatively high quality due to the application of human factors in design improving cabins for drivers. Also, it was highlighted that with the introduction of new stock, workers are being consulted, and that gate lines and gate barriers have been designed more effectively as a consequence of learning lessons from previous designs and applications. The baseline ratings were identical (7 to 8).

4.3.3.3 Strategy level factors

Table 18 highlights the quality ratings assigned to factors at the Strategy level of the rail industry IN model (see Figure 32 for the model) during the final workshop. As before, the workshop group either assigned a ratings range or came to a consensus and gave one single rating.

Table 18 Quality ratings assigned to Strategy level factors during the final workshop

Strategy Level Factors / Quality Ratings	0	1	2	3	4	5	6	7	8	9	10
S1 - Contracting Strategy									8		
S2 - Ownership + Control									8		
S3 - Company Safety Culture								7 to 9			
S4 - Organisational Structure								7 to 8			
S5 - Safety Management									8		
S6 – Workforce Involvement								7 to 8			
S7 - Profitability	<i>rating not applicable</i>										
S8 - Interface Management									8		

Note: The rating scale ranges from '0' indicating poor up to '10' indicating excellent

In addition to the ratings assigned in Table 18, the workshop group also discussed each factor in turn and provided reasons to support their ratings assignment. As with previous levels, after having assigned a rating, any notable differences with the baseline ratings were discussed. The feedback provided was as follows:

- **S1 - Contracting Strategy (8)** – the group rating was high because generally contracts that are set up have safety written into them. However, it was also mentioned that any issues occurring as a result of contractors, usually focuses attention on company who have contracted them, not on the contractor themselves. The baseline rating was identical (8).
- **S2 - Ownership & Control (8)** – participants felt that this is an area where the ROGS framework has helped. The baseline rating was identical (8).
- **S3 - Company Safety Culture (7 to 9)** – the measurement of safety culture was seen to have increased, although it was also noted that there are inconsistencies across organisations. Furthermore, although generally the rail industry was felt to have a good safety culture, there were also some pockets that were felt to still have a 'blame culture'. Therefore a ratings range between 7 and 9 was assigned. The baseline rating was in that same range (7).
- **S4 - Organisational Structure (7 to 8)** – the group largely felt that this factor was of relatively high quality, but one participant commented that they were not sure whether (as per the ratings definition of what constitutes 'excellent'

quality) 'relationships were open'. Another participant indicated that organisational restructuring had reduced the quality. As a consequence, such comments could have led to a decline in ratings compared to a slightly higher baseline (8 to 9).

- **S5 - Safety Management (8)** – participants reached a consensus and agreed upon a value of 8. The baseline rating was slightly lower (7), therefore indicating a slight improvement. This improvement was attributed to the fact that at baseline the industry was “just getting into ROGS”, but two years on the perception of safety management has improved.
- **S6 – Workforce Involvement (7 to 8)** – there were relatively consistent views indicating that workforce involvement was quite high. The unionised nature of the industry was suggested as one reason why involvement was good, and it was noted that in comparison to other industries rail does well in involving the workforce. The baseline ratings had a larger range (5 to 8) and had a lower minimum rating. The group felt the positive improvement was due to consultation now being more open and management acknowledging that employees need to be consulted, as well as employees now better appreciating the role of the unions and being more demanding of their unions.
- **S7 - Profitability (rating not applicable)** – the group indicated that this factor was hard to rate because the industry is fully regulated. It was also mentioned how the freight industry had suffered greatly as a result of the recession.
- **S8 - Interface Management (8)** – the quality of this factor was rated reasonably well and recognised that there is now more interaction between Network Rail and the TOCs. TfL explained how it had introduced an interface manager as a result of its safety case under the previous regime. It needed a team to help set up links between organisations, rail track and TOCs etc. There needed to be clarity on the boundaries between the role of maintenance and signallers, so an interface team was set up to define these boundaries and then manage subsequent agreements. These agreements were then rolled into the safety case agreements. These interface agreements are therefore still all set up and in place. The baseline rating was slightly higher (9).

4.3.3.4 Environmental level factors

Table 19 highlights the quality ratings assigned to factors at the Environmental level of the rail industry IN model (see Figure 32 for the model) during the final workshop. As before, the workshop group either assigned a ratings range or came to a consensus and gave one single rating.

Table 19 Quality ratings assigned to Environmental level factors during the final workshop

Environmental Level Factors / Quality Ratings	0	1	2	3	4	5	6	7	8	9	10
E1 - Political Influence								7			
E2 – Office of Rail Regulation								7 to 9			
E3 - Market Influence						5 to 7					
E4 - Societal Influence							6 to 7				
E5 – Rail Safety and Standards Board								7 to 9			

Note: The rating scale ranges from '0' indicating poor up to '10' indicating excellent

In addition to the ratings assigned in Table 19, the workshop group also discussed each factor in turn and provided reasons to support their ratings. As with previous levels, after having assigned a rating, any notable differences with the baseline ratings were discussed. The feedback provided was as follows:

- E1 - Political Influence (7)** – it was felt that the rail industry has always been fairly high on the political agenda, but largely participants felt that the Government just wanted the industry to get on with running itself and not have any accidents. The baseline rating was slightly lower (6) indicating a slight improvement. The group felt this was because of the Government’s investment in new signalling, new trains and high profile projects such as Crossrail and Thameslink.
- E2 – Office of Rail Regulation (ORR) (7 to 9)** – there were a range of views provided by the participants about ORR. ATOC commented that ORR has done well in bringing together economic and safety regulation, although the organisation can sometimes still feel a little bureaucratic. Heritage highlighted the good guidance provided by ORR, explained how ORR has set up an inspector sub-group to deal specifically with heritage and tramline issues and also mentioned the ICP training course being supported by ORR. Although heritage conceded there were some areas where they still needed to educate ORR, on the whole the heritage sector felt dealings with ORR had been excellent. ASLEF and TfL both said they have been through their ups and downs with ORR, but generally dealings with the regulator had been good. Finally, the TSSA felt ORR still needed to explain exactly what the role of the safety representative was. The overall positive comments about ORR caused the rating to have improved since the baseline (6 to 7).

- **E3 - Market Influence (5 to 7)** – the economic downturn heavily affected the ratings assigned to this factor. The group highlighted the earlier discussion about how the freight industry has collapsed, whilst the passenger services have actually prospered. The group concluded they were not operating in a stable commercial environment. Despite this economic downturn being a recent development, the baseline rating fell directly in the middle of the current ratings range (6).
- **E4 - Societal Influence (6 to 7)** – the group believed that society in general does not prioritise safety as a concern and think that safety is assumed. As a result, this led to a rating that was just above average. The baseline rating was nearly identical (6) indicating no real perceived shift in the quality of societal influence.
- **E5 – Rail Safety and Standards Board (RSSB) (7 to 9)** – there were several positive comments about RSSB. In addition, RSSB was felt to be good at consulting with stakeholders, and were said to be a lot better than their previous incarnation. However, one participant commented that although their relationship with RSSB is good, there was uncertainty over whether RSSB actually did what they said they would do, and that sometimes RSSB's research is questionable. Compared with the baseline ratings (6 to 7), the RSSB rating had improved.

4.3.4 Importance weightings assigned

Once the quality ratings had been assigned during the final workshop, participants were asked to weight the importance of each factor upon the factors on the level above in the model (Figure 32). This involved workshop participants firstly weighting the importance of the influence of the Direct level factors on the top event (i.e. 'Safety in the rail industry'). Workshop participants then weighted the importance of the influence of the Organisational level factors on each of the factors on the Direct level, e.g. the importance of recruitment and selection, training, procedures and planning etc. on competence, motivation, team working etc. This process also included weighting the importance of the influence of each of the Strategy level factors on each of the factors on the Organisational level and the Environmental level on the Strategy level.

This resulted in each IN factor being assigned a range of weightings. The composite or 'average' weighting for each factor was then calculated. Figure 33 highlights the composite weightings for each IN factor as assigned during the final workshop. The colour coding is as follows:

- **Grey factors** - 'high' composite importance weighting
- **Pink factors** - 'medium-high' composite importance weighting
- **Blue factors** – 'medium' composite importance weighting
- **Yellow factors** - 'medium-low' composite importance weighting
- **Green factors** - 'low' composite importance weighting

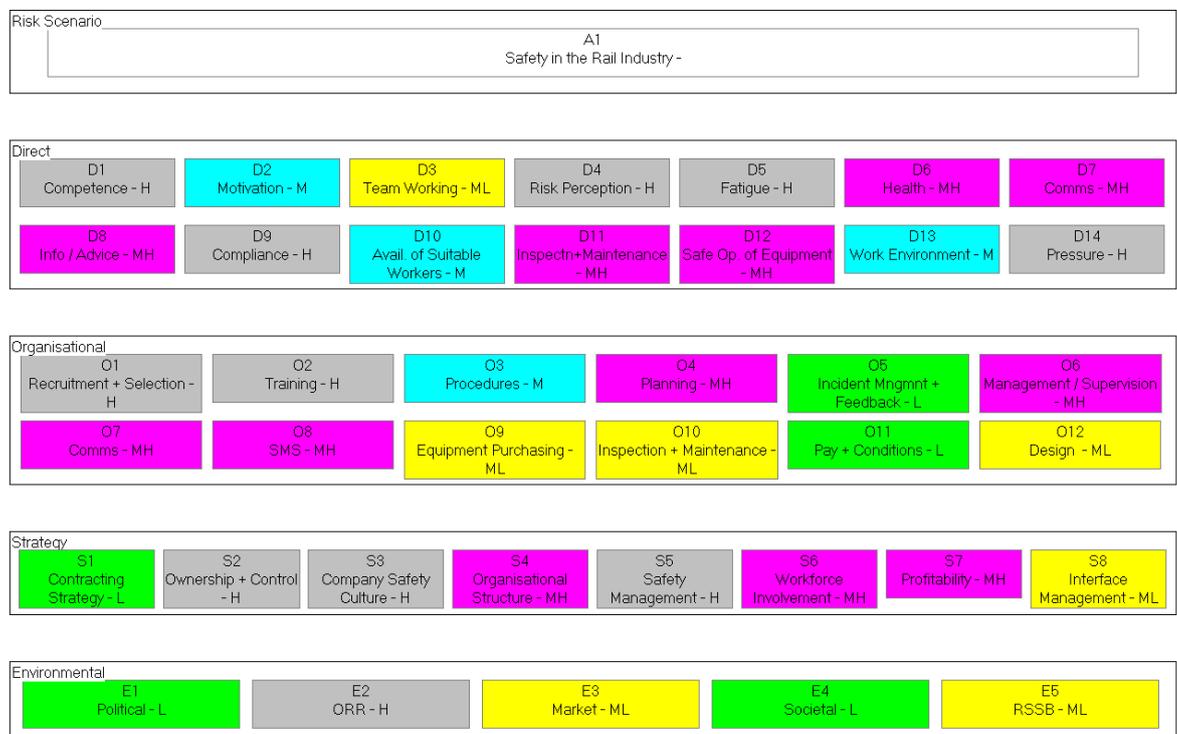


Figure 33 Influence Network model with composite importance weightings for each factor (assigned during final workshop)

Figure 33 highlights that the following factors were assessed as having the highest impact on safety (either directly or indirectly via other factors) at each level of the IN:

- **Direct level factors** – Competence, Risk Perception, Fatigue, Compliance, Pressure.
- **Organisational level factors** – Recruitment & Selection, Training.
- **Strategy level factors** – Ownership & Control, Company Safety Culture, Safety Management.
- **Environmental level factors** – ORR.

4.4 SUMMARY OF CHANGES SINCE THE BASELINE

4.4.1 Ratings

When comparing ratings assigned during the baseline workshop with up-to-date ratings gathered during the final workshop, the key changes were as follows:

- **Direct level factors** – Four out of 14 Direct level factors showed an improvement in the final workshop (Communications, Information/Advice, Availability of Suitable Workers and Work Environment), however, the workshop group did not attribute these improvements to ROGS. However, with regard to Communications, the workshop group did say that ROGS had given the industry an “appropriate framework” to improve communications. The factor Motivation showed a decrease in its rating and this was felt to be largely (although not exclusively) due to the economic downturn. The remaining nine Direct level factors showed no significant change.
- **Organisational level factors** – Two out of 12 Organisational level factors showed an improvement in the final workshop (Procedures and Communications) but these improvements were not attributed to ROGS. Three factors showed a decrease in their ratings (Planning, Incident Management and Feedback and Equipment Purchasing) and the remaining seven factors showed no significant change.
- **Strategy level factors** – Two out of eight Strategy level factors showed an improvement in the final workshop (Safety Management and Workforce Involvement) and it may be said that ROGS contributed in some small way to the improvement in the factor Safety Management as it was felt that industry generally had a better perception of safety management now. Two factors showed a decrease in ratings (Organisational Structure and Interface Management); three factors showed no significant change; and the factor Profitability was not rated in the final workshop (due to significant economic industry regulation) so a comparison could not be drawn.
- **Environmental level factors** – Two out of five factors showed an improvement in the final workshop (Political Influence and ORR). In general, workshop participants positive comments about ORR appeared to contribute

to the increased rating assigned to the factor ORR. The three remaining factors showed no significant change.

4.4.2 Weightings

When comparing weightings from the baseline measure with up-to-date weightings derived from the final workshop, there were some notable changes, as follows:

- **Direct level factors** – Risk Perception, Fatigue, and Pressure had a ‘medium’ weighting at baseline, but are now seen to be of ‘high’ importance. Inspection & Maintenance and Communications have declined in importance from ‘high’ at baseline to ‘medium-high’. Similarly, Motivation appears to have lessened in importance from ‘high’ to a ‘medium’ weighting.
- **Organisational level factors** – Recruitment & Selection has increased in importance from a ‘medium-high’ weighting at baseline to a ‘high’ weighting. Planning, Management / Supervision, and Communication have both declined in importance from ‘high’ to ‘medium-high’ weightings. Similarly, Procedures has declined from a ‘high’ to ‘medium’ weighting.
- **Strategy level factors** – Ownership & Control was originally of ‘medium-high’ importance, but is now considered of ‘high’ importance. Workforce Involvement has declined in importance from a ‘high’ weighting at baseline to a ‘medium-high’ weighting.
- **Environmental level factors** – ORR is now perceived to be more important than at baseline where importance has grown from ‘medium’ to ‘high’ importance. The market has shown the opposite trend where the original ‘high’ weighting has declined to ‘medium-low’ importance.

5. DATA TRIANGULATION AND MAPPING TO ROGS OBJECTIVES

5.1 INTRODUCTION

The following section maps the findings from the industry surveys and IN workshops to the original ROGS objectives and outcome measures in order to assess the extent to which the regulations have met their original aims.

5.2 MAPPING METHODOLOGY

5.2.1 Overview

As described earlier in this report (see Section 2) an evaluation plan (see Table 1) was developed to highlight where data could be gathered that would provide an indication of whether the ROGS were meeting their original objectives. Each individual objective led to a set of outcome measures (things we would expect to see changing if ROGS were having an impact) and the data collected during this project was designed to provide insight into the development of those outcome measures. Figure 2 provides an illustration of how outcome measures link to objectives and how a range of triangulated data sources then provide insight into changes in the outcome measures.

In order to map the data collected during this project against the ROGS objectives and outcome measures, the most appropriate final year data gathered (mainly from the final year survey and the final IN workshop) was mapped against each of the ROGS objectives outlined in Section 2.3.1. This process had also been conducted following the baseline measure and year one and year two surveys. The mapping process enables a clear view of each ROGS objective, associated outcome measures and the findings gathered during this project that indicate the extent to which objectives are being met. The results are presented in Table 20 to Table 24.

Conclusions on the data collected in relation to the ROGS objectives and outcome measures are drawn in Section 5.4.

5.2.2 ORR operational data

The data mapped against the ROGS objectives was primarily taken from the industry surveys and IN workshops, however, during the project GL Noble Denton also endeavoured to obtain additional operational data from ORR and more specifically from HMRI. It is important to note that despite best attempts to obtain detailed operational data, appropriate data was generally not available and therefore it was not possible to analyse data for all of the outcome measures identified. Therefore the ORR / HMRI operational data obtained was very limited. To summarise, the following data was used to map against the ROGS objectives:

- Industry survey data (four surveys across three years)

- Influence Network (IN) workshop data (two workshops – one at the baseline and one at the end of the project)
- ORR analysis of Annual Safety Reports submitted in 2007⁹
- COIN operational data on safety certification and authorisation processing
- Anecdotal data from ORR representatives

5.3 MAPPING FINDINGS

Each ROGS objective is taken in turn and relevant project data gathered mapped against it to help assess the extent to which that objective has been achieved. The findings are presented in Table 20 to Table 24.

Table 20 Data for Objective 1

<p>Objective 1: Implement a large part of the safety management provisions of the EC Railway Safety Directive (RSD) (2004/49/EC), which is intended to harmonise the approach to regulating railway safety across the European Union (EU). This will include having a common approach to safety across the EU covering both passenger and worker safety.</p>		
<p>Subsidiary objectives</p>	<p>Outcome measures</p>	<p>Outcome measure: ORR operational data and survey data</p>
<p>1a. transfer the mainline rail industry from a system of railway safety cases to a system of safety certification and authorisation</p>	<ul style="list-style-type: none"> • Number of mainline rail industry organisations in existence by end of 2008 • Number of safety certification and authorisation applications received, processed and approved by end of 2008 	<p>ORR operational data</p> <ul style="list-style-type: none"> • According to ORR's analysis of annual safety reports, during 2007 there were 47 mainline rail industry organisations in existence (more up to date figures for 2008 were not available). • Safety authorisation / certification (SA/SC) data was obtained from ORR's COIN system for 2006/07 and 2007/08. • In 2006/07 ORR received 31 SA/SC applications and 25 were approved. This left six to be carried over to the next year. • In 2007/08 received 38 SA/SC applications (totalling 44 applications counting the six carried over from 2006/07) and 34 SA/SC were approved. • Therefore, in 2006/07 and 2007/08 a cumulative total of 69 SA/SC applications were received by ORR and 59 were approved. • In comparison with the 47 mainline railway organisations in existence, this would appear a positive finding and suggests this first objective has been met. • However, caution should be exercised as the data received from COIN did not differentiate between initial applications and subsequent amendments to those applications. <p>Survey data</p> <ul style="list-style-type: none"> • The survey data indicated good progress in applying for safety certification and authorisation amongst survey respondents, with the final survey data indicating: <ul style="list-style-type: none"> ○ the number of respondents who needed to attain safety certification and subsequently achieved it, increased from the baseline. ○ in year two and the final survey all respondents had gone through each stage of the authorisation process.

<p>1b. ensure that the UK can respond to Common Safety Targets (CSTs) in the future, to be achieved through Common Safety Methods set by the European Rail Agency</p>	<ul style="list-style-type: none"> • Creation of Common Safety Methods • Extent to which Annual Safety Reports submitted include details on Common Safety Indicators 	<p>ORR operational data</p> <ul style="list-style-type: none"> • In 2007 ORR conducted an analysis of railway organisations' annual safety reports. In terms of the extent to which they included details on Common Safety Indicators, the report commented on how the targets reported were the transport operator's own targets, making it difficult to draw comparisons between operators. • However, the report did outline a series of Common Safety Indicators that had been reported on by some organisations, suggesting that once the Common Safety Targets are introduced in April 2009, the industry would be ready to report on them. • GL Noble Denton was not able to obtain any further data beyond this ORR report.
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Table 21 Data for Objective 2

<i>Objective 2: Simplify domestic UK rail safety Regulatory structure by replacing three sets of regulations with one.</i>					
<i>Subsidiary objectives</i>	<i>Outcome measures</i>	<i>Outcome measure: baseline data</i>	<i>Outcome measure: year one</i>	<i>Outcome measure: year two</i>	<i>Outcome measure: final survey</i>
2a. reduce the number of railway operators that have to seek formal permission from the safety regulator to work on the railway	<ul style="list-style-type: none"> Number of railway operators applying for formal permission from ORR to work on the railway by end of 2008 and 2009 	<ul style="list-style-type: none"> Outcome data on the number of railway operators applying for formal permission from ORR to work on the railway by end of 2008 and 2009 was going to be obtained from ORR. However, it was not possible to obtain definitive data and therefore it is not possible to draw firm conclusions on the achievement of this particular objective. 			
2b. produce a set of minimum requirements for a safety management system as the basis of safety certification / authorisation that is more streamlined, better targeted, less bureaucratic, and quicker for duty holders	<ul style="list-style-type: none"> Industry stakeholders' perceptions of the current quality of SMS's under ROGS in the rail industry Industry stakeholders' perceptions of the importance of SMS's under ROGS for maintaining safety in the rail industry 	<p>IN workshop data</p> <ul style="list-style-type: none"> Stakeholders at the baseline IN workshop rated existing SMS's between 8 to 9 out of 10 (0 being poor and 10 being excellent). They were generally in agreement that safety management systems (SMS's) were mature and effective in the rail industry as organisations had always been required to have them. The 	<ul style="list-style-type: none"> No data obtained at this time point. 	<ul style="list-style-type: none"> No data obtained at this time point. 	<p>IN workshop data</p> <ul style="list-style-type: none"> Stakeholders at the final IN workshop rated existing SMS's between 7 to 9, which was similar to the baseline rating, so no significant change. It was felt that SMS's were good and improving all the time. Network Rail believed that some improvements were due to ROGS, feeling that ROGS

Objective 2: Simplify domestic UK rail safety Regulatory structure by replacing three sets of regulations with one.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
		<p>group agreed that a quality rating of between 8 and 9 was appropriate as there was still room for improvement in terms of integrating SMS's with other organisational functions.</p> <ul style="list-style-type: none"> • Safety management at a strategy level was thought to be of 'high' importance for influencing safety in the rail industry, although SMS at an organisational level was weighted of 'medium' importance. 			<p>had provided more flexibility in the design of their SMS.</p> <ul style="list-style-type: none"> • Similarly to the baseline measure, safety management at the strategy level was thought to be of 'high' importance for influencing safety, whilst SMS at an organisational level was weighted of 'medium-high' importance.
	<ul style="list-style-type: none"> • Cost of developing an SMS under ROGS 	<p>Survey data</p> <ul style="list-style-type: none"> • The cost of setting up an SMS ranged from £5,000 (an OTM) to 	<p>Survey data</p> <ul style="list-style-type: none"> • A range of costs were incurred by year one 	<ul style="list-style-type: none"> • SMS development costs not collected at year two, as development has 	<ul style="list-style-type: none"> • SMS development costs not collected in the final year survey, as development has

Objective 2: Simplify domestic UK rail safety Regulatory structure by replacing three sets of regulations with one.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
		£500,000 (a Metro system). Within this range, a TOC spent £50,000 and another Metro system spent £40,000. The number of days spent per organisation ranged from 10 days (two OTM's) to 900 days (a Metro system) with an average total number of days per organisation of 272 days.	respondents, although four were from £10k to £60k and one was £100k. The average was £45k. A range of days spend was also reported from 12 to 200 with the average being 97 days.	already occurred.	already occurred.
	<ul style="list-style-type: none"> Cost of maintaining an SMS under ROGS 	<p>Survey data</p> <ul style="list-style-type: none"> The estimated cost of maintaining an SMS per year was received from two Metro systems; one estimated it to be £40k and the other estimated it at £60k. 	<p>Survey data</p> <ul style="list-style-type: none"> A range of costs were incurred by the year one respondents, from less than £10k for two organisations to £50k-249.9k for two others. The average was £41k. 	<p>Survey data</p> <ul style="list-style-type: none"> The majority of respondents suggested SMS maintenance had cost between £10k and £49.9k. One respondent indicated it had cost between £1k and £9.9k and 	<p>Survey data</p> <ul style="list-style-type: none"> Most respondents (who gave a response) indicated spending between £10k to £49.9k on SMS maintenance. Most respondents reported spending

Objective 2: Simplify domestic UK rail safety Regulatory structure by replacing three sets of regulations with one.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
		<ul style="list-style-type: none"> The number of days spent per organisation per year ranged from 10 days (an OTM) to 347 days (a Metro system) with an average total number of days per organisation per year of 156 days. 	<ul style="list-style-type: none"> Most year one responses were in the 50 to 99 days category (4), although another two were only 10 to 49 days and two were 100 to 250 days. The average was 95 days. 	<p>one other quoted a cost of between £50k and £249.9k.</p> <ul style="list-style-type: none"> The majority of responses indicated spending between 100 to 250 days in maintaining their SMS per year. However, four respondents indicated that their organisation has spent 10 to 49 days. The average was 170 days per organisation per year. 	<p>between '10 to 49' days or between '100 to 250' days. The average was 77 days per organisation per year. This was the lowest average number of days spent across the three-year period.</p> <ul style="list-style-type: none"> In the final year, the majority of respondents (53%) who had a SMS felt that the maintenance costs have been similar to costs associated with maintaining a safety case. This trend was the same across all four surveys.
	<ul style="list-style-type: none"> Challenges faced in 	Survey data	Survey data	Survey data	Survey data

Objective 2: Simplify domestic UK rail safety Regulatory structure by replacing three sets of regulations with one.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
	<p>maintaining an SMS under ROGS</p>	<ul style="list-style-type: none"> The most significant challenges associated with maintaining an SMS under ROGS were said to be communicating the SMS to the organisation (33%) and time and / or resource pressures (33%). Some respondents also cited understanding the requirements and organisational / cultural barriers as being a challenge. 	<ul style="list-style-type: none"> 'Organisational and cultural barriers' and 'time and / or resource pressures' were the most common challenges in SMS development under ROGS in the year one sample, both receiving a response of 37% each. 	<ul style="list-style-type: none"> The most significant challenges at year two were 'time and / or resource pressures' followed by 'communicating the SMS to the organisation', followed by 'organisational / cultural barriers'. 	<ul style="list-style-type: none"> In the final year the most reported challenge was 'communicating the SMS to the organisation'.
	<ul style="list-style-type: none"> Impact of ROGS SMS on safety 	<p>Survey data</p> <ul style="list-style-type: none"> The majority (62%) of respondents indicated that their SMS under ROGS had not caused any changes to safety. Encouragingly 23%, said their SMS under 	<p>Survey data</p> <ul style="list-style-type: none"> 53% of year one respondents thought ROGS SMS had made no change to safety. However, 32% thought this had improved safety. 	<p>Survey data</p> <ul style="list-style-type: none"> The majority (55%) of year two respondents felt that SMS under ROGS has not affected safety. 	<p>Survey data</p> <ul style="list-style-type: none"> The majority in the final year (60%) felt that SMS under ROGS had not affected safety.

Objective 2: Simplify domestic UK rail safety Regulatory structure by replacing three sets of regulations with one.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
		ROGS had improved safety and no respondents indicated that their SMS under ROGS had hindered safety.			
2c. change the distribution of HMRI inspector resource from the assessment of safety cases, and redirect it towards checking by inspection 'on the ground' that operators are properly controlling the risks arising from their operations	<ul style="list-style-type: none"> Amount of time booked by HMRI inspectors to assessing safety cases 	<ul style="list-style-type: none"> Outcome data on the amount of time booked by HMRI inspectors to assessing safety cases was going to be obtained from ORR. However, it was not possible to obtain this data. 			
	<ul style="list-style-type: none"> Amount of time booked by HMRI inspectors to conducting site visits 	<p>Survey data</p> <ul style="list-style-type: none"> Outcome data on the amount of time booked by HMRI inspectors to assessing safety cases was going to be obtained from ORR. However, it was not possible to obtain this data. However, the industry survey did ask respondents for feedback on the amount of site visits received from HMRI inspectors and the length of the visit. In the final year (based on visits for the first half of the year only), half of the responses (50%) indicated receiving between 3 and 5 HMRI visits. This was similar to previous surveys (despite the time period being one year on previous surveys as opposed to six months in the final year). This suggests that if the final survey had obtained data for the whole year, the final survey may have seen an increase in the number of visits received compared with previous surveys. Furthermore, 40% of final year respondents said visits lasted between '1 to 2 hours'; 40% said they lasted between '3 to 5' hours; and 20% said visits lasted between '6 to 8' hours. This 20% is an increase on previous years, suggesting inspector visits may be lasting longer. 			

Objective 2: Simplify domestic UK rail safety Regulatory structure by replacing three sets of regulations with one.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
		<ul style="list-style-type: none"> This survey data may indicate that inspector resource is starting to shift from reviewing safety cases to providing 'on the ground' inspection, suggesting this objective may be starting to be achieved. Although caution must be exercised due to the lack of additional data for triangulation purposes. 			
	<ul style="list-style-type: none"> Number of queries received by ORR with regard to RA etc. 	<ul style="list-style-type: none"> The number of queries received by ORR with regard to risk assessment needed to be gathered from ORR – however this data was not available. <p>Survey data</p> <ul style="list-style-type: none"> The types of challenges that duty holders initially faced with regard to risk assessment were time and / or resource pressures (31%), involving employees and their representatives (13%) and applying targets / standards (13%). 	<p>Survey data</p> <ul style="list-style-type: none"> The year one respondents indicated understanding the requirements was a challenge in dealing with the ROGS risk assessment requirements (23%). A further (27%) felt that time and / or resource pressures were a challenge. 	<p>Survey data</p> <ul style="list-style-type: none"> The majority of respondents (52%) felt there have been no challenges encountered in adapting existing risk assessment arrangements to meet the requirements of Regulation 19. This showed a big increase compared with previous surveys. 	<p>Survey data</p> <ul style="list-style-type: none"> The most common response from the final year respondents was that they had experienced no challenges (33%). This is higher than the baseline and year one but dropped from a high in year two (52%).

Table 22 Data for Objective 3

Objective 3: Place a duty on operator companies and infrastructure managers to co-operate and ensure that the interface (in its widest sense) is being managed effectively to ensure system safety.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
3a. transport operators and infrastructure managers need to work together to ensure system safety	<ul style="list-style-type: none"> Appointment of representatives in organisations tasked with interfacing with other duty holders 	IN workshop data <ul style="list-style-type: none"> Final IN workshop participants were asked whether they had appointed representatives tasked with interfacing with other duty holders. One duty holder confirmed it had introduced an interface manager as a result of its safety case under the previous regime. But it also needed a team to help set up links between organisations, rail track and TOCs etc. 			
	<ul style="list-style-type: none"> Development of written procedures for interfacing with other duty holders 	IN workshop data <ul style="list-style-type: none"> In the final IN workshop, one duty holder explained how (regardless of the ROGS duty) there needed to be clarity on the boundaries between the roles of maintenance and signallers, so an interface team was set up to define these boundaries and then manage subsequent agreements. These agreements were then rolled into the safety case agreements. These interface agreements were therefore set up and still remain in place. 			
	<ul style="list-style-type: none"> Methods developed to evaluate effectiveness of co-operation 	Survey data <ul style="list-style-type: none"> The largest percentage of baseline survey respondents (47%) felt their processes for achieving co-operation were suitable in their current format 	Survey data <ul style="list-style-type: none"> 33% of year one respondents thought their processes for achieving cooperation were suitable in their current format. A further 48% said their existing processes required some minor 	<ul style="list-style-type: none"> Format for process for achieving co-operation not collected at year two, as format already implemented in previous years. 	<ul style="list-style-type: none"> Format for process for achieving co-operation not collected in final survey, as format already implemented in previous years.

Objective 3: Place a duty on operator companies and infrastructure managers to co-operate and ensure that the interface (in its widest sense) is being managed effectively to ensure system safety.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
		although a further 41% said their existing processes required some minor changes.	changes.		
	<ul style="list-style-type: none"> • Identification of areas where majority of operator interfacing occurs 	<p>Survey data</p> <ul style="list-style-type: none"> • In terms of making changes, the largest percentage of baseline survey responses (47%) said they identified areas where the majority of operator interfacing occurs. 	<p>Survey data</p> <ul style="list-style-type: none"> • In terms of making changes, the largest percentage of year one survey responses (71%) said they identified areas where the majority of operator interfacing occurs. 	<ul style="list-style-type: none"> • Details not collected in year two as stage has passed. 	<ul style="list-style-type: none"> • Details not collected in final survey as stage has passed.
	<ul style="list-style-type: none"> • Impact of duty of co-operation on safety 	<p>Survey data</p> <ul style="list-style-type: none"> • The majority of respondents (60%) felt that the new duty of co-operation had not yet caused a change in safety. 	<p>Survey data</p> <ul style="list-style-type: none"> • The majority of respondents (80%) felt that the new duty of co-operation had not caused a change in safety. 	<p>Survey data</p> <ul style="list-style-type: none"> • The majority of respondents (55%) felt that there had been 'no change' in safety as a result of the duty of co-operation. 	<p>Survey data</p> <ul style="list-style-type: none"> • The majority of the final year respondents who provided an answer (56%) felt that there has been 'no change' to safety as a result of the duty of

Objective 3: Place a duty on operator companies and infrastructure managers to co-operate and ensure that the interface (in its widest sense) is being managed effectively to ensure system safety.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
					co-operation.
	<ul style="list-style-type: none"> Challenges encountered in meeting duty of co-operation 	<p>Survey data</p> <ul style="list-style-type: none"> The joint largest number of survey responses felt other duty holders not co-operating would be a challenge in terms of addressing the duty of co-operation (29%) and also time and / or resource pressures were cited as a significant challenge (29%). 	<p>Survey data</p> <ul style="list-style-type: none"> Time and / or resource pressures were cited as a significant challenge by 38% of year one respondents. Furthermore, organisational / cultural barriers were cited as a challenge by 29% of respondents. 	<p>Survey data</p> <ul style="list-style-type: none"> The largest number of respondents (48%) report having not encountered any challenges in meeting the duty of co-operation. 	<p>Survey data</p> <ul style="list-style-type: none"> The most common challenge cited was 'organisational / cultural barriers' (39%). The second most common challenge cited in the final year was 'other duty holders not cooperating' (28%).
	<ul style="list-style-type: none"> Industry stakeholders' perceptions of the current quality of interface management in the rail industry 	<p>IN workshop data</p> <ul style="list-style-type: none"> The factor 'interface management' was believed to be very good at the baseline. Relationships with ORR and RSSB were also cited as being 	<ul style="list-style-type: none"> To be explored again in final Influence Network workshop 	<ul style="list-style-type: none"> To be explored again in final Influence Network workshop 	<p>IN workshop data</p> <ul style="list-style-type: none"> The quality of this factor was rated reasonably well (8) and recognised that there was now more interaction between Network Rail and the

Objective 3: Place a duty on operator companies and infrastructure managers to co-operate and ensure that the interface (in its widest sense) is being managed effectively to ensure system safety.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
		particularly positive. The group agreed that a high quality rating of 9 was therefore appropriate.			TOCs. There had been a very slight decrease in the rating from the baseline.
	<ul style="list-style-type: none"> Stakeholders' perceptions of the importance of interface management for maintaining safety in the rail industry 	IN workshop data <ul style="list-style-type: none"> The factor 'interface management' was only given a 'medium-low' weighting during the baseline workshop in terms of its importance in influencing safety. 	<ul style="list-style-type: none"> To be explored at final Influence Network workshop 	<ul style="list-style-type: none"> To be explored at final Influence Network workshop 	IN workshop data <ul style="list-style-type: none"> In the final workshop interface management received a 'medium-low' weighting again.
3b. transport operators should identify appropriate forms of co-operation that complement the measures they are taking to comply with their own safety duties	<ul style="list-style-type: none"> See Objective 3a outcome measures 	<ul style="list-style-type: none"> See Objective 3a baseline data. 	<ul style="list-style-type: none"> See Objective 3a year one data. 	<ul style="list-style-type: none"> See Objective 3a year two data. 	<ul style="list-style-type: none"> See Objective 3a final data.

Table 23 Data for Objective 4

Objective 4: Extend broadly similar requirements to railways not covered by the RSD (“non-mainline railways”), as well as to some other guided transport systems.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
4a. for the parts of the railway industry outside the mainline railway (i.e. the non-mainline railway including London Underground Ltd (LUL), tramways, heritage railways), remove the existing requirement for formal approval by the safety regulator before the introduction of new or altered works, plant or equipment	<ul style="list-style-type: none"> Number of non-mainline railway organisations having difficulty without HMRI approval role 	<ul style="list-style-type: none"> Outcome data on the number of non-mainline railway organisations having difficulty without the HMRI approval role was going to be fully explored with ORR (HMRI). However, it was not possible to obtain definitive data and therefore it is not possible to draw firm conclusions on this particular outcome measure. 			
	<ul style="list-style-type: none"> Number of non-mainline railway organisations with process in place for introducing new or altered works, plant or equipment 	<p>Survey data</p> <ul style="list-style-type: none"> In terms of the processes for ensuring the safe introduction of new or altered infrastructure or rolling stock, 35% of respondents indicated they were undertaking the SMS change management process; 35% said they would go through the safety verification process under ROGS; and a further 23% 	<p>Survey data</p> <ul style="list-style-type: none"> 64% were using the ‘SMS change management process’, 57% were ‘safety verification under ROGS’ and 36% of responses were ‘Use of “notified body” under RIR’ 	<p>Survey data</p> <ul style="list-style-type: none"> The majority of year two respondents (83%) indicated that they use a ‘SMS change management process’ to assist in the safe introduction of new / altered infrastructure or rolling stock. The next most common method adopted was ‘safety verification under ROGS’ (74%) 	<p>Survey data</p> <ul style="list-style-type: none"> 83% in the final year had a ‘SMS change management process’ in place – an increase from the baseline (53%). ‘Safety verification under ROGS’ was also in place in a large number of respondents’ organisations in the final year (72%) and had also increased since the baseline.

Objective 4: Extend broadly similar requirements to railways not covered by the RSD (“non-mainline railways”), as well as to some other guided transport systems.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
		indicated using a notified body under the Railways (Interoperability) Regulations 2006 (RIR).			<p>ORR anecdotal data</p> <ul style="list-style-type: none"> In addition to the survey data, an ORR representative confirmed one of the non-mainline railway operators had their own safety verification process - the "Engineering Change Submission Process". This consisted of a series of stages (such as design, construction, testing) that are each subject to a technical review process. At the start of any project there's a check against ROGS requirements, to ensure that any additional verification that's needed to

Objective 4: Extend broadly similar requirements to railways not covered by the RSD (“non-mainline railways”), as well as to some other guided transport systems.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
					comply with ROGS is incorporated into the plan.
	<ul style="list-style-type: none"> Introduction of systems for deciding when safety verification must be applied 	Survey data <ul style="list-style-type: none"> The majority (54%) of baseline survey respondents only required minor changes to their existing processes in order to fully address safety verification requirements; 31% of respondents required major changes (4 out of 13); and 15% of respondents (2 out of 13) required a completely new process. 	Survey data <ul style="list-style-type: none"> 43% required minor changes to their existing processes, 29% required major changes, a completely new process was required by 14% of year one respondents. 	<ul style="list-style-type: none"> Details not collected in year two as stage has passed. 	<ul style="list-style-type: none"> Details not collected in final survey as stage has passed.
	<ul style="list-style-type: none"> Changes to written safety verification 	Survey data <ul style="list-style-type: none"> The most significant 	Survey data <ul style="list-style-type: none"> The most common 	<ul style="list-style-type: none"> Details not collected in year two as stage 	<ul style="list-style-type: none"> Details not collected in final survey as

Objective 4: Extend broadly similar requirements to railways not covered by the RSD (“non-mainline railways”), as well as to some other guided transport systems.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
	schemes	changes made were changing the written safety verification scheme (38%) and introducing a system for deciding when safety verification must be applied (38%).	changes made were changing the written safety verification scheme (36%) and introducing a system for deciding when safety verification must be applied (54%).	has passed.	stage has passed.
	<ul style="list-style-type: none"> Changed processes for evaluating the effectiveness of the safety verification process 	<ul style="list-style-type: none"> There were no definitive comments provided regarding whether or not processes for evaluating the effectiveness of the safety verification process had been changed. 			
	<ul style="list-style-type: none"> Challenges encountered in obtaining safety verification 	Survey data <ul style="list-style-type: none"> The most significant safety verification challenge was felt to be knowing when to apply safety verification (55%). Other significant challenges were 	Survey data <ul style="list-style-type: none"> The most significant challenge was felt to be knowing when to apply safety verification (48%). Other differences are with experiencing time and / or resource 	Survey data <ul style="list-style-type: none"> The most significant safety verification challenge was perceived to be ‘understanding the requirements’ of safety verification (58%). Knowing 	Survey data <ul style="list-style-type: none"> ‘Identifying / appointing an ICP’ and ‘knowing when to apply safety verification’ were the greatest challenges for the final year respondents (both

Objective 4: Extend broadly similar requirements to railways not covered by the RSD (“non-mainline railways”), as well as to some other guided transport systems.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
		identifying and appointing an independent competent person (ICP) (45%); experiencing time and / or resource pressures (45%); and understanding the requirements (36%).	pressures (38%), and understanding the requirements (43%).	when to apply safety verification was also viewed as a key challenge by 53% of respondents.	53%). Whilst ‘knowing when to apply safety verification’ has gradually reduced from the baseline (67%), ‘identifying / appointing an ICP’ as was actually lower in years one and two (around 33%).
4b. replace this requirement with a more targeted requirement on duty holders to obtain safety verification from an independent competent person	<ul style="list-style-type: none"> Identification of suitable independent competent person/s (ICP) 	Survey data <ul style="list-style-type: none"> A significant challenge in safety verification was found to be identifying and appointing an independent competent person (ICP) (45%). 	Survey data <ul style="list-style-type: none"> Identifying and appointing an independent competent person (ICP) was reported as a challenge by 29% of respondents. 	Survey data <ul style="list-style-type: none"> Identifying and appointing an independent competent person (ICP) was reported as a challenge by 31% of respondents. 	Survey data <ul style="list-style-type: none"> Identifying and appointing an independent competent person (ICP) was reported as a challenge by 53% of respondents. This is the highest proportion of respondents feeling this way across all four surveys – suggesting this

Objective 4: Extend broadly similar requirements to railways not covered by the RSD (“non-mainline railways”), as well as to some other guided transport systems.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
					challenge is becoming more significant.
	<ul style="list-style-type: none"> Changes in the way information is managed to ensure easy access for ICP's 	<p>Survey data</p> <ul style="list-style-type: none"> The majority of baseline survey respondents (54%) were found to only require minor changes to their existing processes in order to fully address safety verification requirements; 31% of respondents required major changes and 15% of respondents required a completely new process. 	<p>Survey data</p> <ul style="list-style-type: none"> Minor changes required by 43%, major changes required by 29% in year one. A completely new process was required by 14% of year one respondents. 	<ul style="list-style-type: none"> Details not collected in year two as stage has passed. 	<ul style="list-style-type: none"> Details not collected in final survey as stage has passed.
	<ul style="list-style-type: none"> Introduction of processes for handling ICP recommendations 	<p>IN workshop data</p> <ul style="list-style-type: none"> In terms of findings suitable workers in the rail industry in general, the IN 	<ul style="list-style-type: none"> To be explored again at the final Influence Network workshop 	<ul style="list-style-type: none"> To be explored again at the final Influence Network workshop 	<p>IN workshop data</p> <ul style="list-style-type: none"> In the final IN workshop there was a diversity of views on the availability of

Objective 4: Extend broadly similar requirements to railways not covered by the RSD (“non-mainline railways”), as well as to some other guided transport systems.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
		workshop group agreed that day-to-day resourcing was good (hence the quality rating of 9), but one-off complex projects could be difficult to resource quickly (hence the quality rating of 4).			suitable human resources. For example, some felt that people leaving roles can be hard to fill putting a strain on those left behind and others commented on frontline workers where salaries were good and hence suitable workers were less challenging to find (e.g. drivers). The group rated this factor between 7 and 8, which still fell within the range assigned at the baseline.

Table 24 Data for Objective 5

Objective 5: Replace the Safety Critical Work Regulations 1994 (SCWR) and implement requirements on those carrying out all types of safety critical work. Under ROGS the legal scope has increased as a wider range of work is now covered.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
5a. change the definition of 'safety critical work' from broad job titles to the actual tasks that are safety critical to the safety of the railway	<ul style="list-style-type: none"> Number of organisations identifying safety critical work undertaken in organisation 	Survey data <ul style="list-style-type: none"> In terms of making changes, the joint largest percentage of responses to the baseline survey indicated duty holders reviewed the factors which influence worker fatigue (75%) and identified safety critical work undertaken in the organisation (75%). 	Survey data <ul style="list-style-type: none"> Reviewing contractors arrangements for managing safety critical work was reported by 71% of year one respondents. Reviewing worker fatigue (71%) and identifying safety critical work (62%) were also reported. 	<ul style="list-style-type: none"> Details not collected in year two as stage has passed. 	<ul style="list-style-type: none"> Details not collected in final survey as stage has passed.
5b. safety critical tasks must be carried out by a person assessed as being competent and fit for work	<ul style="list-style-type: none"> Number of organisations introducing competency management systems 	IN workshop data <ul style="list-style-type: none"> In terms of competence throughout the industry, the IN workshop group rated this factor in terms of individual's being 	<ul style="list-style-type: none"> To be explored again at the final Influence Network workshop 	<ul style="list-style-type: none"> To be explored again at the final Influence Network workshop 	IN workshop data <ul style="list-style-type: none"> Competence throughout the industry was rated between 7 and 8. It was felt that many job roles in the rail industry are highly

Objective 5: Replace the Safety Critical Work Regulations 1994 (SCWR) and implement requirements on those carrying out all types of safety critical work. Under ROGS the legal scope has increased as a wider range of work is now covered.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
		<p>competent to do their own jobs (i.e. jobs they are trained and experienced in) and not competence in general. It was felt that generally the factor should be rated as a 7, although it was also suggested that the competence of train drivers was higher than this (a 9 was suggested). A range of between 7 and 9 was therefore agreed upon across the group.</p>			<p>specialised (e.g. train drivers, signallers etc.) and these people are competent in their roles. However, there are some weaknesses with agency workers when placed in different environments every day, reducing familiarity with their surroundings.</p> <ul style="list-style-type: none"> • Workshop participants explained there was a strong competency framework based on a points system at the heart of the rail industry. People are subject to ongoing continual assessment to ensure competency remains high.

Objective 5: Replace the Safety Critical Work Regulations 1994 (SCWR) and implement requirements on those carrying out all types of safety critical work. Under ROGS the legal scope has increased as a wider range of work is now covered.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
	<ul style="list-style-type: none"> Number of organisations explicitly identifying workers undertaking safety critical work and those managing them 	Survey data <ul style="list-style-type: none"> 69% of respondents indicated that they identify workers undertaking safety critical work and those managing them. 	Survey data <ul style="list-style-type: none"> 71% of respondents undertook this activity. 	<ul style="list-style-type: none"> Details not collected in year two as stage has passed. 	<ul style="list-style-type: none"> Details not collected in final survey as stage has passed.
	<ul style="list-style-type: none"> Number of workers accredited as competent 	IN workshop data <ul style="list-style-type: none"> In terms of finding suitable workers in the rail industry in general, the Influence Network workshop group agreed that day-to-day resourcing was good (hence the quality rating of 9), but one-off complex projects could be difficult to resource quickly (hence the quality rating of 4). 	<ul style="list-style-type: none"> To be explored again at the final Influence Network workshop 	<ul style="list-style-type: none"> To be explored again at the final Influence Network workshop 	IN workshop data <ul style="list-style-type: none"> In the final IN workshop there was a diversity of views on the availability of suitable human resources. For example, some felt that people leaving roles can be hard to fill putting a strain on those left behind and others commented on frontline workers where salaries were good and hence suitable workers were

<p>Objective 5: Replace the Safety Critical Work Regulations 1994 (SCWR) and implement requirements on those carrying out all types of safety critical work. Under ROGS the legal scope has increased as a wider range of work is now covered.</p>					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
					less challenging to find (e.g. drivers). The group rated this factor between 7 and 8, which still fell within the range assigned at the baseline.
	<ul style="list-style-type: none"> Industry's perception of the competence, health and overall fitness of rail industry workers 	<p>IN workshop</p> <ul style="list-style-type: none"> In terms of fatigue in the rail industry, the group underlined that the rail industry (with the exception of the heritage sector) is a 24/7 industry. Workshop participants also described some of the well-documented signals passed at danger (SPAD) incidents, which had been caused by microsleeps. The 	<ul style="list-style-type: none"> To be explored again at the final Influence Network workshop 	<ul style="list-style-type: none"> To be explored again at the final Influence Network workshop 	<p>IN workshop</p> <ul style="list-style-type: none"> During the final IN workshop participants acknowledged fatigue was still an issue in the industry, despite designing rosters to try and manage fatigue. Long working hours can be exacerbated by potentially long commutes for some staff. The heritage sector was highlighted where volunteers may also be holding down

Objective 5: Replace the Safety Critical Work Regulations 1994 (SCWR) and implement requirements on those carrying out all types of safety critical work. Under ROGS the legal scope has increased as a wider range of work is now covered.					
<i>Subsidiary objectives</i>	<i>Outcome measures</i>	<i>Outcome measure: baseline data</i>	<i>Outcome measure: year one</i>	<i>Outcome measure: year two</i>	<i>Outcome measure: final survey</i>
		<p>group went on to highlight how account needs to be taken of workers' lifestyle factors (e.g. ensuring people are rested for work etc.) in order to try and mitigate the risk of fatigue at work. Due to the nature of the industry, the group assigned the factor 'fatigue' a quality rating range of between 5 and 7.</p> <ul style="list-style-type: none"> In terms of physical health the group highlighted how train drivers go through a rigorous selection process, which includes a full medical to ensure fitness to 			<p>a full time job outside of their heritage role. It was also felt that drivers in the freight sector were more likely to face fatigue as it was an industry driven by demand. In the passenger sector, it was identified that duty managers were more likely to suffer fatigue due to stress and staff shortages. The factor was rated between a 5 to 7.</p> <ul style="list-style-type: none"> The group felt that initiatives such as medicals, education about living healthily, free health assessments etc. had been successful in

Objective 5: Replace the Safety Critical Work Regulations 1994 (SCWR) and implement requirements on those carrying out all types of safety critical work. Under ROGS the legal scope has increased as a wider range of work is now covered.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
		<p>work. The heritage sector raised the issue of working with older individuals and taking into consideration their physical health requirements. In terms of psychological health, the stress rail workers go through if they have been involved with a suicide was also raised during the discussion. A counselling service is provided for rail workers to help them deal with the trauma. The group agreed on a ratings range of between 6 and 8, with '6' representing the</p>			<p>improving general health levels. The rating assigned was 7 to 8.</p>

<p>Objective 5: Replace the Safety Critical Work Regulations 1994 (SCWR) and implement requirements on those carrying out all types of safety critical work. Under ROGS the legal scope has increased as a wider range of work is now covered.</p>					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
		infrastructure and train operating companies parts of the rail industry and '8' representing train drivers.			
5c. remove the requirement for safety critical workers to carry a formal means of identification	<ul style="list-style-type: none"> Number of safety critical workers carrying formal means of identification 	<ul style="list-style-type: none"> Outcome data on the number of safety critical workers carrying formal means of identification was going to be fully explored with ORR (HMRI). However, it was not possible to obtain definitive data and therefore it is not possible to draw firm conclusions on this particular outcome measure. 			
5d. 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 from a wide number of factors, such as the pattern of working hours and roster design	<ul style="list-style-type: none"> Consideration of the pattern of working hours and roster design reflected in revised working schedules 	<p>IN workshop data</p> <ul style="list-style-type: none"> During the final IN workshop it was noted that rail organisations have attempted to improve roster and schedule design in an attempt to manage fatigue more efficiently, however, it was also acknowledged that managing fatigue was still an issue due to the 24/7 nature of the industry. 			
	<ul style="list-style-type: none"> Industry's perception of the health and fatigue of rail industry workers 	<p>IN workshop data</p> <ul style="list-style-type: none"> See objective 5b for industry's perception of the health and fatigue of rail industry workers. 	<ul style="list-style-type: none"> To be explored at the final Influence Network workshop 	<ul style="list-style-type: none"> To be explored at the final Influence Network workshop 	<p>IN workshop data</p> <ul style="list-style-type: none"> See objective 5b for industry's perception of the health and fatigue of rail industry workers.

Objective 5: Replace the Safety Critical Work Regulations 1994 (SCWR) and implement requirements on those carrying out all types of safety critical work. Under ROGS the legal scope has increased as a wider range of work is now covered.					
Subsidiary objectives	Outcome measures	Outcome measure: baseline data	Outcome measure: year one	Outcome measure: year two	Outcome measure: final survey
	<ul style="list-style-type: none"> Industry's perception of safe job design 	IN workshop data <ul style="list-style-type: none"> Overall 'design' in the rail industry was perceived to be of relatively high quality amongst participants in the final IN workshop, due to the application of human factors in design, improving cabins for drivers. Also, it was highlighted that with the introduction of new stock, workers are being consulted, and that gate lines and gate barriers have been designed more effectively as a consequence of learning lessons from previous designs and applications. The quality of design was also perceived to be good in the baseline workshop. However, industry's perception of 'safe job design' in terms of managing schedules and roster design was not explicitly discussed, with the exception of the feedback gained during the discussion around fatigue. 			

5.4 SUMMARY AND CONCLUSIONS

5.4.1 Introduction

The following sections summarise the range of evidence presented in Table 20 to Table 24 and then draws conclusions on whether the ROGS objectives have been achieved.

5.4.2 Objective 1

1a - transfer the mainline rail industry from a system of railway safety cases to a system of safety certification and authorisation

- **Based on the limited outcome indicator data available, this objective appears to have been achieved.** The number of safety certification and authorisation applications received, and approved, by ORR were higher than the number of mainline rail organisations in existence around 2007. Furthermore, survey data indicated steady progress amongst survey respondents in successfully completing the safety certification and authorisation process.

1b - ensure that the UK can respond to Common Safety Targets (CSTs) in the future, to be achieved through Common Safety Methods set by the European Rail Agency

- Based on the limited outcome indicator data available, it appeared that the UK was getting ready to be able to respond to CSTs in the future. In 2007, ORR found that although rail organisations were still predominantly reporting on their own company safety targets in annual safety reports, there was evidence of some Common Safety Indicators (CSI's) being reported on. Therefore, this would suggest that come 2009 when CSTs are fully introduced, the industry would have further developed their reporting of CSI's and would be ready to respond to the CSTs. **This would therefore indicate that this objective has been achieved.**

5.4.3 Objective 2

2a. reduce the number of railway operators that have to seek formal permission from the safety regulator to work on the railway

- It was not possible to obtain definitive data on this objective and therefore no firm conclusions have been drawn.

2b - produce a set of minimum requirements for a safety management system as the basis of safety certification / authorisation that is more streamlined, better targeted, less bureaucratic, and quicker for duty holders

- Data from the IN workshops indicated that industry felt the quality of safety management in the rail industry was high and by the final workshop, participants commented on how ROGS had provided a flexible framework within which to design a SMS.
- Across all three surveys only limited cost data was available (both in terms of time and direct financial expenditure). In order to make direct comparisons an

average time spent on SMS maintenance per year, per organisation, was calculated. The average days spent per year in the baseline was 156, in the year one survey it reduced to 95, in year two it went back up to 170 and in the final year it went down to its lowest level of 77 days. Most encouragingly, the majority of respondents in the final year (53%) who had a SMS felt that the maintenance costs have been similar to costs associated with maintaining a safety case. This trend was the same across all four surveys. Suggesting that the SMS under ROGS is certainly not more expensive or time consuming than the previous regime.

- In terms of challenges faced in maintaining an SMS under ROGS, communicating the SMS to the rest of the organisation was cited as a key challenge in almost all of the industry surveys. Time and / or resource pressures were also significant throughout the surveys. These challenges suggest that perhaps SMS under ROGS is not necessarily quicker for duty holders.
- The majority of respondents across all four surveys indicated that SMS under ROGS had not caused any changes to safety. This is a positive finding considering one aspect of the overarching aims of ROGS is to maintain safety at a constant level during this period of change.
- **Overall it would appear that this objective is starting to be achieved.**

2c - change the distribution of HMRI inspector resource from the assessment of safety cases, and redirect it towards checking by inspection 'on the ground' that operators are properly controlling the risks arising from their operations

- Outcome data on the amount of time booked by HMRI inspectors to assessing safety cases and conducting site visits was to be obtained from ORR, but unfortunately it was not possible to obtain this data. However, survey data indicated an increase in HMRI time spent on site visits and potentially an increase in the number of site visits being conducted, **suggesting this objective may be starting to be met.**
- In terms of the challenges faced by operators when conducting risk assessment under ROGS (Regulation 19), the final two surveys highlighted that the largest proportion of organisations responding faced no challenges. This suggests it would be unlikely that too much inspector time would be utilised answering risk assessment queries.

5.4.4 Objective 3

3a - transport operators and infrastructure managers need to work together to ensure system safety; and

3b - transport operators should identify appropriate forms of co-operation that complement the measures they are taking to comply with their own safety duties

- There was some evidence 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. Most duty holders actually confirmed that their pre-ROGS procedures for interfacing were still suitable under ROGS or only required minor changes. A large proportion of

duty holders surveyed also confirmed that they had been through the process of identifying where most interfacing already takes place.

- The majority of duty holders across all four surveys confirmed the duty of co-operation had not impacted on safety, which is expected considering other evidence suggests systems were already largely in place prior to ROGS coming into force and therefore no major change was required which may impact on safety.
- Challenges that were encountered in meeting the duty included duty holders not co-operating, cultural/organisational barriers and time and/or resource pressures.
- Finally, attendees at the IN workshops rated the standard of interface management in the rail industry as good, and did not feel that the activity itself had a significant influence on safety.
- **Overall it would appear this objective has been met.**

5.4.5 Objective 4

4a - for the parts of the railway industry outside the mainline railway (i.e. the non-mainline railway including London Underground Ltd (LUL), tramways, heritage railways), remove the existing requirement for formal approval by the safety regulator before the introduction of new or altered works, plant or equipment

- Although it was not possible to obtain sufficient data on non-mainline railway only, across all surveys, the majority of respondents confirmed they had a process in place for introducing new or altered works, plant or equipment. In terms of setting up a system for deciding when safety verification should be applied, around half of stakeholders responding in the baseline and year one surveys only required minor changes to their existing processes for doing so, around a third required major changes and a tenth required a whole new process.
- Stakeholders found knowing when to apply safety verification a challenge, although this challenge decreased over the four surveys.
- In terms of ROGS meeting this challenge, **the Regulations have removed the need for formal approval by ORR, so this objective has been achieved.** Evidence collected during this project suggests that rail organisations do have processes in place for safety verification even if they have found knowing when to apply it challenging.

4b - replace this requirement with a more targeted requirement on duty holders to obtain safety verification from an independent competent person

- Identifying and appointing an independent competent person (ICP) was reported as a challenge across all four surveys, but interestingly the highest proportion cited this as a challenge in the final survey, suggesting this challenge has become more significant since ROGS was introduced. In terms of having available suitable human resources, feedback was mixed during both IN workshops, but in general the standard of resourcing was rated reasonably highly.

- As ROGS have required operators to appoint an ICP, then it can be said that this objective has been achieved.

5.4.6 Objective 5

5a - change the definition of 'safety critical work' from broad job titles to the actual tasks that are safety critical to the safety of the railway

- At the baseline measure 75% of respondents said they had identified what work was 'safety critical' in the organisation as part of making ROGS related changes. In the year one survey the majority of respondents (62%) also confirmed they identified safety critical work. **The evidence suggests that this objective has been achieved.**

5b - safety critical tasks must be carried out by a person assessed as being competent and fit for work

- Although it was acknowledged during both workshops that levels of competency did vary across the industry, in general competency was rated as being of a high standard. At the heart of competency in the industry there is also a points based competency management system. In terms of the availability of suitable human resources, although feedback from the workshops suggested there was variability across different parts of the industry, generally availability was rated as being of a high standard.
- Worker fatigue in the rail industry was acknowledged to still be an issue (particularly due to the 24/7 nature of the industry) but even with effort put into roster and schedule design, it was still a difficult issue to completely resolve. Physical fitness was generally perceived to be reasonably good across the industry.
- The baseline survey and year one survey also indicated that the majority of respondents (around 70% in both surveys) explicitly identify workers undertaking safety critical work and those managing them.
- The evidence suggests that safety critical tasks have been identified and there are suitably fit and competent workers available to undertake them. **This would suggest this objective has been achieved.**

5c - remove the requirement for safety critical workers to carry a formal means of identification

- It was not possible to obtain definitive data on this objective and therefore no firm conclusions have been drawn.

5d - 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 from a wide number of factors, such as the pattern of working hours and roster design

- As stated above, worker fatigue was acknowledged to still be an issue, even with increased effort put into roster and schedule design. Physical fitness was generally perceived to be reasonably good across the industry.

- **Based on the evidence this objective would not seem to have been fully addressed yet**, but this is something that is being continually improved upon and it is also an issue that industry is very aware of.

6. COST ANALYSIS

6.1 INTRODUCTION

The preceding sections of this report have presented the evaluation methodology applied, the results from the four industry surveys and two IN workshops and then mapped the indicator data gathered against the original ROGS objectives and outcome measures. An assessment was then made regarding whether or not the original objectives had been achieved. This section of the report considers the effectiveness of ROGS in terms of value for money.

6.2 COST ANALYSIS METHODOLOGY

6.2.1 Original methodology

One of the original objectives of this final evaluation report was to conduct a full cost-benefit analysis. This would have comprised of the following three elements:

- Estimating the costs of complying with ROGS at each stage of implementation and for each type of duty holder, as well as then making an estimate of the cost of complying across the whole rail industry. This cost estimate would have been an estimate of the 'net costs' of complying with ROGS (i.e. the total cost of ROGS minus the baseline costs of complying with RSCR).
- Estimating the benefits of ROGS by calculating the value of prevented fatalities over the period of the evaluation. The benefits would be the 'net benefits' (i.e. the total benefits since ROGS has been implemented minus the benefits that would have occurred anyway if ROGS had not been introduced (the 'counterfactual')).
- The net costs and net benefits would then be compared to assess whether costs to industry in implementing ROGS were not in gross disproportion to the benefits gained.

However, underpinning the reliability and validity of any cost-benefit analysis is the quality of the data that informs it. This study has attempted to gather a range of cost data from industry and also operational data from ORR in order to inform the cost-benefit analysis. Unfortunately, both sets of data have been challenging to obtain in sufficient detail.

6.2.2 Difficulties with industry cost data

All four industry surveys requested details from duty holders on the cost of implementing each element of the Regulations (i.e. safety management systems, safety verification, annual safety reports etc.). A small handful of duty holders were forthcoming in providing this detail, however, a large proportion of duty holders did not provide any information. Some duty holders gave reasons for not providing data such as not having access to the information, or only knowing certain costs but not others etc. However, for many of the duty holders no detail was provided.

In addition to the absence of data altogether, because so few duty holders provided information even the cost data that was provided was minimal and would not have provided an accurate reflection of the rail industry cost to comply with ROGS. This meant it would have been invalid to use the cost data in conjunction with costs from the RSCR evaluation or data on benefits to industry calculated using accident data. Valid comparisons simply could not have been made without leading to spurious and inaccurate outcomes which would have provided false conclusions for ORR. It was therefore felt that conducting a cost-benefit analysis as originally intended would be misleading and therefore not a reliable way forward.

As an alternative, the minimal cost data that was provided by some duty holders has been collated and cleansed and presented in Section 6.3. In addition to this cost data, the qualitative feedback provided by stakeholders in the survey on whether or not ROGS costs have exceeded, been the same as, or less than the costs of complying with the previous regime have also been presented, where appropriate.

6.2.3 Cost data collation and cleansing

6.2.3.1 Cost data collation

The industry cost data provided was collated in the following way:

- Cost data provided by each duty holder for each element of ROGS was extracted.
- For safety management systems (SMS) an average cost to develop a SMS and an average cost to maintain a SMS per year was calculated.
- For safety certification and safety authorisation an average cost for initial applications and an average cost for subsequent amendments was calculated.
- For safety verification, risk assessment and annual safety reports, an average cost to comply was calculated for each.
- Costs were either presented as a 'hard cost' in GBP or a number of days spent complying with that particular element of ROGS, but not both, in order to avoid 'duplication' of cost data and therefore over-inflating the cost estimate.
- Costs were extracted for each type of duty holder and where only one organisation represented an entire category (i.e. only one light railway organisation provided cost data), this was noted to ensure caution was exercised when drawing any conclusions about the cost data.

6.2.3.2 Cost data cleansing

As part of the cost data collation exercise, some data cleansing was also required, as follows:

- Some duty holders provided both hard cost data (GBP) and number of days spent. Where this was the case, the GBP provided was used instead of the number of days spent to ensure a more accurate reflection of actual costs. Only choosing one type of cost data also ensured overall costs were not falsely inflated.

- On some years two representatives from the same organisation responded to the survey and both provided cost data. Interestingly the cost data provided was typically very different (also underlining the poor reliability of the cost data in general). If one representative had provided hard costs and one time spent, the hard costs were used instead of the days spent. If both representatives provided cost data (or number of days spent), then the higher figure was chosen in order to ensure 'worst case scenario' was reflected in the final figures.

6.3 COSTS OF COMPLYING WITH ROGS

As explained above, the following section presents the average costs to comply with each element of ROGS by each of the duty holder types that responded.

6.3.1 Safety Management System (SMS) costs

Table 25 highlights the average cost of developing and maintaining (per year) a SMS by each type of duty holder who provided cost data. Costs are either presented in GBP (£) or in average number of days spent (where both are presented they are mutually exclusive).

Table 25 Cost of complying with the SMS element of ROGS

Duty holder type	SMS Development**		SMS Maintenance Per Year	
	Average cost (£)	Average no. of days spent	Average cost (£)	Average no. of days spent
TOC	£51,500	77	£40,625	52
OTM	£5,000*	10*	No data	105
FOC	£0*	0*	£0*	900
Metro system	£270,000	No data	£60,000*	98
Light railway	£60,000*	No data	£15,000*	100*
Infrastructure manager	No data	No data	No data	110*
Maintainer of vehicles or infrastructure	No data	No data	£30,000*	No data
Tramway	No data	No data	No data	220*
Other	No data	No data	£20,000*	No data

* Caution: Numbers from one organisation only

**Questions on SMS development costs only asked in first two ROGS surveys (baseline and year one)

Table 25 highlights that in terms of SMS development the cost would appear to have been most high for the Metro systems providing data. TOCs and light railway organisations quoted considerably less expensive costs, albeit still a substantial investment. In terms of maintenance costs, Metro system organisations appear to have incurred the highest cost again, however, there is less discrepancy with other types of duty holder. One FOC organisation said maintenance had not cost anything,

but interestingly another FOC had quoted 900 days spent conducting annual maintenance.

To put these figures in context, it is worth noting that in the final year survey the majority of respondents (53%) who had a SMS felt that the maintenance costs were similar to costs associated with maintaining a safety case. This trend was the same across all four surveys. However, it should also be noted that there was a trend emerging for more respondents to report that costs are ‘more expensive’ to maintain a SMS under ROGS, rising from 0% at baseline to 20% by the final year.

6.3.2 Safety Verification

Table 26 highlights the average cost of undertaking safety verification per year by each type of duty holder who provided cost data. Costs are either presented in GBP (£) or in average number of days spent (where both are presented they are mutually exclusive).

Table 26 Cost of complying with the safety verification element of ROGS

Duty holder type	Undertaking Safety Verification Per Year	
	Average cost (£)	Average no. of days spent
TOC	£26,900	24
OTM	No data	60
FOC	No data	7
Metro system	£209,000	97
Light railway	No data	100*
Infrastructure manager	No data	255*
Maintainer of vehicles or infrastructure	No data	No data
Tramway	No data	220*
Other	£2,000	No data

* Caution: Numbers from one organisation only

Table 26 highlights that Metro organisations reported the highest hard cost (in GBPs) incurred for undertaking safety verification duties each year. However, in terms of time spent, the infrastructure manager reported the highest number of days (255 days) closely followed by a tramway organisation (220 days). In contrast, the average FOC time spent on safety verification was only 7 days.

It should be noted that the clear majority final year survey respondents (71%) who answered this question reported that safety has not changed as a result of safety verification. However, this proportion was higher than in previous surveys.

6.3.3 Safety Certification

Table 27 highlights the average cost of safety certification initial application and subsequent amendments by each type of duty holder who provided cost data. Costs are either presented in GBP (£) or in average number of days spent (where both are presented they are mutually exclusive).

Table 27 Cost of complying with the safety certification element of ROGS

Duty holder type	Safety Certification initial application		Safety Certification amendment cost	
	Average cost (£)	Average no. of days spent	Average cost (£)	Average no. of days spent
TOC	£21,714	64	£4,900	12
OTM	£5,000*	60	No data	20
FOC	£54,000*	15*	No data	5*
Metro system	£90,000	74	£48,000*	24
Light railway	No data	No data	No data	No data
Infrastructure manager	No data	No data	No data	No data
Maintainer of vehicles or infrastructure	£5,000*	No data	No data	No data
Tramway	No data	No data	No data	No data
Other	£2,000*	No data	No data	No data

* Caution: Numbers from one organisation only

Table 27 highlights that again the Metro organisations that provided an initial application cost and the one Metro system that provided a maintenance cost appeared to have incurred the largest cost for safety certification. A FOC organisation also reported a high initial application cost, followed by a range of TOC organisations.

In terms of feedback from the four industry surveys, the most common response has always been that both the cost and time spent applying for safety certification has been less the cost and time spent applying for Railway Safety Case applications. Furthermore, typically survey respondents did not feel that safety had been changed as a result of safety certification under ROGS.

6.3.4 Safety Authorisation

Table 28 highlights the average cost of safety authorisation initial application and subsequent amendments by each type of duty holder who provided cost data. Costs are either presented in GBP (£) or in average number of days spent (where both are presented they are mutually exclusive).

Table 28 Cost of complying with the safety authorisation element of ROGS

Duty holder type	Safety Authorisation initial application		Safety Authorisation amendment cost	
	Average cost (£)	Average no. of days spent	Average cost (£)	Average no. of days spent
TOC	£21,783	69	£650	3
OTM	No data	No data	No data	No data

FOC	No data	No data	No data	No data
Metro system	£144,000*	80	£48,000*	15
Light railway	No data	88*	No data	18*
Infrastructure manager	No data	350*	No data	47*
Maintainer of vehicles or infrastructure	No data	No data	No data	No data
Tramway	No data	No data	No data	No data
Other	£2,000*	No data	No data	No data

* Caution: Numbers from one organisation only

Table 28 highlights that in terms of safety authorisation initial application costs Metro organisation costs are highest again, however, in terms of time spent the Infrastructure manager quoted by far the highest number of days spent. This pattern was also the same for safety authorisation amendment costs.

In industry surveys, the dominant view has always been that the cost (in GBPs) of applying for safety authorisation has been the same as costs incurred under the safety case regime. In terms of time spent (in days) on safety authorisation, across the four surveys there has been a steady increase in the proportion of respondents who felt it took less time to undertake a safety authorisation application compared with time spent on safety cases.

Furthermore, in the final year the majority of respondents (70%) felt that safety has not been affected by safety authorisation. This trend was also evident across previous surveys.

6.3.5 Risk Assessment

Table 29 highlights the average cost of undertaking risk assessment per year by each type of duty holder who provided cost data. Costs are either presented in GBP (£) or in average number of days spent (where both are presented they are mutually exclusive).

Table 29 Cost of complying with the risk assessment element of ROGS

Duty holder type	Undertaking Risk Assessment Per Year**	
	Average cost (£)	Average no. of days spent
TOC	£12,000	25
OTM	£10,000*	No data
FOC	No data	No data
Metro system	£60,000*	No data
Light railway	No data	100*
Infrastructure manager	No data	No data
Maintainer of vehicles	No data	No data

Duty holder type	Undertaking Risk Assessment Per Year**	
	Average cost (£)	Average no. of days spent
or infrastructure		
Tramway	No data	No data
Other	No data	No data

* Caution: Numbers from one organisation only

**Costs for risk assessment only asked in first two industry surveys (baseline and year one)

Table 29 highlights that very little data was obtained in terms of the costs incurred to undertake risk assessment under ROGs per year. However, in keeping with the trend across other elements of ROGS, a Metro organisation indicates the highest hard cost (in GBPs) to comply with Regulation 19 (risk assessment). In terms of time spent, a light railway organisation indicated the highest cost.

Furthermore, the majority of respondents in the final year survey (88%) felt that risk assessments have 'not changed' safety. This finding was also similar to previous surveys.

6.3.6 Annual Safety Report

Table 30 highlights the average cost of annual safety reports by each type of duty holder who provided cost data. Costs are either presented in GBP (£) or in average number of days spent (where both are presented they are mutually exclusive).

Table 30 Cost of complying with the annual safety report element of ROGS

Duty holder type	Completing Annual Safety Report Per Year	
	Average cost (£)	Average no. of days spent
TOC	£1,928	6
OTM	£500*	3
FOC	No data	7
Metro system	£4,000*	4
Light railway	No data	10*
Infrastructure manager	No data	23
Maintainer of vehicles or infrastructure	£500*	No data
Tramway	No data	No data
Other	No data	No data

* Caution: Numbers from one organisation only

Table 30 highlights that most data was obtained in terms of days spent on annual safety reports. The average number of days spent on preparing and submitting reports ranged from 3 (an OTM) to 23 (an Infrastructure manager).

6.4 SUMMARY AND CONCLUSIONS

The following conclusions can be drawn from the cost analysis:

- Obtaining an accurate estimate of the cost to individual duty holder groups as well as a cost to industry to comply with each element of ROGS proved challenging in the absence of data with sufficient breadth or depth.
- Data that was obtained from duty holders was collated and cleansed in order to provide some indication of the costs incurred to comply with each element of ROGS.
- In terms of SMS, Metro rail organisations reported the highest SMS development cost, as well as yearly maintenance costs. However, Metro maintenance costs were comparable with maintenance costs across all duty holder types.
- Survey data indicated that SMS maintenance costs were largely similar to safety case maintenance costs, suggesting this cost has not been an increased financial burden to industry.
- Metro organisations reported the highest hard cost (in GBPs) incurred for undertaking safety verification duties each year, although in terms of time spent, the infrastructure manager reported the highest number of days closely followed by a tramway organisation.
- Metro organisations also reported the highest safety certification application cost (in GBPs) and maintenance cost. A FOC organisation also reported a high initial application cost, followed by a range of TOC organisations.
- In terms of feedback from the four industry surveys, the most common response was always that both the cost and time spent applying for safety certification has been less than the cost and time spent applying for Railway Safety Case applications. This suggests that not only has ROGS not been a burden, but it has actually been more cost effective than the previous regime.
- Metro organisations once again reported the highest costs for safety authorisation initial application, although the Infrastructure manager quoted the highest number of days spent. Safety authorisation amendment costs showed the same pattern across the duty holder types.
- Encouragingly additional survey feedback indicated the cost of applying for safety authorisation has been the same as costs incurred under the safety case regime and across the four surveys, more and more respondents felt that time spent on safety authorisation application was less than time spent on safety cases. As with safety certification, this suggests ROGS has been a more cost effective regulatory regime.
- Very few costs were obtained for complying with risk assessment under Regulation 19 of ROGS; those that were obtained highlighted a high cost from a Metro organisation and a high number of days spent from a light rail organisation.

- The average number of days spent on preparing and submitting annual safety reports ranged from 3 (an OTM) to 23 (an Infrastructure manager).

7. CONCLUSIONS AND RECOMMENDATIONS

7.1.1 Introduction

Based on the findings from this monitoring and evaluation study, the final conclusions and recommendations are as follows:

7.1.2 Did ROGS achieve their original aims and objectives?

The performance data collected from the industry surveys, IN workshops and some anecdotal data obtained from ORR was mapped against each one of the ROGS original aims and objectives. A conclusion was then drawn regarding whether or not the objective appeared to have been met or not. Where there was sufficient data to make a reasoned judgement, in all but one case it was felt that ROGS had either achieved the original objectives or were on the way to achieving them. The only objective that ROGS was not yet felt to have achieved was:

“5d - 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 from a wide number of factors, such as the pattern of working hours and roster design”

The full detail of the mapping exercise can be viewed in Section 5.4.

7.1.3 Were ROGS cost effective?

It was not valid to conduct a full cost-benefit analysis due to the limited data collected during the project; any results and conclusions generated would have been misleading and therefore unsafe to base policy decisions upon. Instead, the costs to industry that were provided in some survey returns were collated, presented and discussed in the report (see Section 6). Duty holder types that appeared to incur the highest costs were Metro organisations, light railways and infrastructure managers. In addition to the cost data presented, qualitative feedback from the industry survey was also used to put the cost data in context. It was largely felt by duty holders that the costs they had incurred complying with ROGS had been either the same or less than the costs incurred under the previous safety case regime. This suggested that ROGS had not been an increased financial burden to industry and in some cases had actually been more cost effective than the previous regime.

7.1.4 Did ROGS bring about any improvements in safety across the industry?

The majority of data on changes to safety brought about by ROGS was obtained via the four industry surveys. Largely the feedback gained was that ROGS had not brought about any changes to safety. More specifically, in terms of the elements of ROGS (i.e. SMS, safety verification, safety certification, safety authorisation, risk assessment under ROGS, annual safety reports, the duty of co-operation and the safety critical work duty) none were felt to have changed safety across the industry by the majority of responding stakeholders.

However, encouragingly, in terms of annual safety reports and the duty of co-operation, there was an increasing proportion of respondents felt that these elements had actually improved safety. There was also a proportion of respondents who felt the safety critical work duty had improved safety, although this proportion did reduce over the four surveys.

All of these findings are extremely encouraging and also directly address the overarching aim of ROGS to:

“Maintain national standards of rail safety in line with EU requirements⁴ and strive for continuous improvement”

The IN workshops also gathered industry insight on where there had been changes in the rail industry risk profile. Although there were a handful of areas where workshop participants felt there had been improvements, most of these areas were felt to have been influenced by wider industry developments such as the recession (i.e. they were confounding factors). However, two areas were felt to have been improved due to the introduction of ROGS.

Firstly, frontline communications about safety were said to have improved and workshop participants generally felt that ROGS had some part to play in this improvement as the Regulations had provided industry with an “appropriate framework” to improve communications. Secondly, it was felt that ROGS may have contributed in some small way to the improvement of ‘Safety Management’ as it was felt that industry generally now had a better perception of safety management.

7.1.5 What was learnt in terms of the role of ORR?

The majority of data on the role of ORR was obtained via the four industry surveys. Feedback from industry suggested ORR were responsive when it came to requests for help on implementing ROGS, and the vast majority of survey respondents rated the help received as either ‘good’ or ‘excellent’. Rail organisations typically received an inspector visit between 3 to 5 times per year and they either lasted between 1 to 2 hours or between 3 to 5 hours. However, the duration of the visit did appear to be increasing to between 6 to 8 hours over the four surveys.

At the IN workshops rail industry stakeholders were also asked to comment on the role of ORR. In terms of the most recent workshop, a range of views were provided about ORR, as follows:

- ORR has done well in bringing together economic and safety regulation, although the organisation can sometimes still feel a little bureaucratic
- ORR has provided good guidance, some of which has been tailored specifically to certain types of duty holder
- There have been some “ups and downs” with the regulator, but in general, dealings have been good.
- More explanation still required on the role of the safety representative

Overall final workshop participants gave ORR a better rating than they had for the baseline survey, suggesting ORR have improved since ROGS have been in force.

7.1.6 What more can ORR do to continue to make improvements?

Overall, the findings in this report suggest ROGS have been successful in their first three years of implementation, maintaining safety (and in some areas improving safety) alongside qualitative evidence suggesting that in some areas ROGS may actually be

more cost effective than the previous safety case regime. Furthermore, the mapping of performance data against ROGS original objectives suggested the objectives have largely been achieved or are well on their way to being achieved. In terms of ORR's performance, feedback from stakeholders on ORR was also largely positive. One area where ORR could improve is in the area of the operational data it collects, in order that in the future it can monitor progress in a range of areas more effectively. Operational data should be well organised and readily accessible for ORR policy makers. Finally, a number of specific recommendations for ORR from stakeholders were noted as follows:

- *“Would like them [ORR] to facilitate the sharing of best practice between all TOCs.”*
- *“The industry steering group is still in existence, albeit not currently meeting on any regular basis.”*
- *“More clarity and guidance on ORR expectations during transition from ‘responsible person’ to operator in a tramway context, particularly as the operator may have limited influence on safety by design and construction if brought on at a later stage in the project by the client.”*
- *“Identification of Safety Related or Key Safety Roles and the way in which these should be managed.”*

8. REFERENCES

¹ <http://www.rail-reg.gov.uk/upload/pdf/rogs-monitor-bomel-reprt-feb08.pdf>

² <http://www.rail-reg.gov.uk/upload/pdf/rogs-monitor-bomel-reprt-nov08.pdf>

³ <http://www.rail-reg.gov.uk/upload/pdf/rogs-monitor-bomel-reprt-jun09.pdf>

⁴ Regulatory Impact Assessment (Final). *Railways and Other Guided Transport Systems (Safety) Regulations 2006*, Annex B, <http://www.rail-reg.gov.uk/upload/pdf/rogs-ria.pdf>

⁵ ROGS Implementation Briefing, *Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS), Implementation Briefing*, December 1 2006

⁶ Office of Rail Regulation (ORR). *The Railways and Other Guided Transport Systems (Safety) Regulations 2006: Guidance on Regulations*, April 2006

⁷ Office of Rail Regulation (ORR). *Invitation to Tender: For The Provision of Consultancy Services for the Monitoring and Evaluation of Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS)*, Reference: ORR/CT/334/MEROT, December 2006

⁸ Health and Safety Executive (HSE). *'Health and Safety Climate Survey Tool (HSCST)'*, Byrom & Corbridge, 1997

⁹ Office of Rail Regulation (ORR). *ROGS Regulation 20 Reports from transport operators: Analysis of 2007 Reports*, 2008

APPENDIX A – COPY OF THE FOUR SURVEYS ISSUED TO INDUSTRY

BASELINE SURVEY

THE RAILWAYS AND OTHER GUIDED TRANSPORT SYSTEMS (SAFETY) REGULATIONS 2006 (ROGS)

ABOUT THIS SURVEY

- BOMEL is an independent research and consultancy organisation. We are carrying out research on behalf of the Office of Rail Regulation (ORR) to monitor and evaluate the impact of ROGS.
- This research will involve a series of activities over the next three years designed to gather and analyse safety performance information in order to assess whether ROGS have met their original aims and objectives. This survey is the first of four we will conduct over the next three years.
- We appreciate you are busy and we have therefore tried to keep the survey as short and interesting as possible. We value your views and appreciate the time taken to complete this survey.

WHO SHOULD COMPLETE THIS SURVEY

- We are seeking views from a representative sample of organisations within the rail industry regarding ROGS.
- This questionnaire is ideally intended for those with a responsibility for safety (e.g. Safety Managers, Supervisors, Safety Representatives etc.).
- The survey covers the following areas:

PART 1 – FOR EVERYONE TO COMPLETE

1. Organisational details
2. Awareness and understanding of ROGS
3. Industry safety culture
4. General feedback on ROGS and ORR
5. Additional comments

PART 2 – FOR DUTY HOLDERS ONLY TO COMPLETE

6. Specific duty holder details
7. Implementation of ROGS
8. Additional comments

CONFIDENTIALITY

All responses will be treated in the strictest confidence. Your name will not be passed to the ORR or made available to any other parties without your consent. Responses are being obtained from a range of organisations. The results of this survey will be aggregated and presented so that individual respondents will not be identifiable. Likewise, our report will not name individual contributors.

COMPLETING THE SURVEY

Please respond in terms of your own organisation. If your organisation is part of a larger group but essentially works independently, then please answer for your organisation about which you have direct knowledge, and not the group. Please provide as many answers as you can but leave blank those questions you cannot answer. The survey should take no longer than 30 minutes to complete.

CONTACT DETAILS

BOMEL: Natasha Perry, natashaperry@bomelconsult.com, 01753 216800
Thames Central, 90 Hatfield Road, Slough, Berkshire, SL1 1QE

Thank you for your assistance with this important study.

PART 1 – FOR EVERYONE TO COMPLETE

1 Organisational details

This section (1 – Organisational details) will remain confidential to BOMEL only

1.1	Your name:	
1.2	Job title:	
1.3	Organisation name:	
1.4	Telephone No:	
1.5	Email:	
1.6	Website:	

2 Awareness and understanding of ROGS

	Strongly agree	Agree	Neither	Disagree	Strongly disagree	No opinion
2.1 Please provide your views on the following statement by ticking the box which most accurately reflects your opinion: <i>“I am aware of ROGS and their contents”</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2 Please provide your views on the following statement by ticking the box which most accurately reflects your opinion: <i>“I understand the requirements of ROGS”</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.3 Do you use any guidance to help you understand ROGS?	Yes				<input type="checkbox"/>	
	No				<input type="checkbox"/>	
2.4 If Yes, please indicate what guidance you use. (Select all boxes that apply) If <i>Other</i> , please specify:	ORR published guidance				<input type="checkbox"/>	
	RSSB published guidance				<input type="checkbox"/>	
	Internal organisational guidance				<input type="checkbox"/>	
	Other				<input type="checkbox"/>	

		Very useful	Useful	Not useful	Not sure	Not applicable	
2.5	If you indicated using any of the following pieces of guidance, please indicate how useful you find the guidance:	ORR published guidance	<input type="checkbox"/>				
		RSSB published guidance	<input type="checkbox"/>				
		Internal organisational guidance	<input type="checkbox"/>				
		Other (as specified above)	<input type="checkbox"/>				
2.6	In relation to the answers you gave in Question 2.5, please briefly explain why you felt each piece of guidance is either 'very useful', 'useful', 'not useful' etc.	ORR published guidance					
		RSSB published guidance					
		Internal organisational guidance					
		Other (as specified above)					
2.7	Do you use any other help to assist you in understanding ROGS?	Yes				<input type="checkbox"/>	
		No				<input type="checkbox"/>	
2.8	If Yes, please specify what help you use. (Select all boxes that apply)	External consultant				<input type="checkbox"/>	
		Internal consultant				<input type="checkbox"/>	
		Direct contact with ORR				<input type="checkbox"/>	
		Direct contact with RSSB				<input type="checkbox"/>	
		Trade union				<input type="checkbox"/>	
		Industry networking				<input type="checkbox"/>	
		Other				<input type="checkbox"/>	
	If <i>Other</i> , please specify:						

3 Industry safety culture

PLEASE PROVIDE YOUR VIEWS ON THE FOLLOWING SAFETY STATEMENTS BY TICKING THE BOX WHICH MOST ACCURATELY REFLECTS YOUR OPINION

	Strongly agree	Agree	Neither	Disagree	Strongly disagree	No opinion
3.1 There are good communications here about health and safety issues	<input type="checkbox"/>					
3.2 The company really cares about the health and safety of the people who work here	<input type="checkbox"/>					
3.3 My immediate boss often talks to me about health and safety	<input type="checkbox"/>					
3.4 Supervisors are good at detecting unsafe behaviour	<input type="checkbox"/>					
3.5 There is nothing I can do to further improve health and safety here	<input type="checkbox"/>					
3.6 I trust my workmates with my health and safety	<input type="checkbox"/>					
3.7 I am clear about what my responsibilities are for health and safety	<input type="checkbox"/>					
3.8 People here do not remember much of the health and safety training which applies to their job	<input type="checkbox"/>					
3.9 People here always work safely even when they are not being supervised	<input type="checkbox"/>					
3.10 People here think health and safety is not their problem – it's up to management and others	<input type="checkbox"/>					
3.11 Some people here have a poor understanding of the risks associated with their work	<input type="checkbox"/>					
3.12 There are always enough people available to get the job done according to the health and safety procedures/instructions/rules	<input type="checkbox"/>					
3.13 Near misses are always reported	<input type="checkbox"/>					

4 General feedback on ROGS and ORR

4.1 Has ROGS changed the way in which safety has been managed in your organisation? If Yes, please briefly explain why:	Yes	<input type="checkbox"/>				
	No	<input type="checkbox"/>				
	Not sure	<input type="checkbox"/>				
4.2 Has ROGS made any difference to safety related decision making? If Yes, please briefly explain why:	Yes	<input type="checkbox"/>				
	No	<input type="checkbox"/>				
	Not sure	<input type="checkbox"/>				
4.3 Please provide your views on the following statement by ticking the box which most accurately reflects your opinion: <i>“From experience, I believe that standards of safety are the same under ROGS”</i>	Strongly agree	Agree	Neither	Disagree	Strongly disagree	No opinion
	<input type="checkbox"/>					
4.4 Could more be done to reduce the administrative burden of the regulations? If Yes, please specify:	No	<input type="checkbox"/>				
	Yes	<input type="checkbox"/>				
	No opinion	<input type="checkbox"/>				
4.5 How would you describe the help and support you have received from ORR? (Select one box)	Excellent	<input type="checkbox"/>				
	Good	<input type="checkbox"/>				
	Average	<input type="checkbox"/>				
	Poor	<input type="checkbox"/>				
	Very poor	<input type="checkbox"/>				
	No opinion	<input type="checkbox"/>				
4.6 What else could ORR do to help you with ROGS?						

5 Additional comments

5.1 Are there any additional comments that you would like to make?

PART 2 – FOR DUTY HOLDERS ONLY TO COMPLETE

6 Specific duty holder details

This section will be used to put cost data into context		
6.1 What best describes the role of your organisation?: (Select one box only or specify below)	Infrastructure manager	<input type="checkbox"/>
	Train operating company (TOC)	<input type="checkbox"/>
	Freight operating company (FOC)	<input type="checkbox"/>
	On Track Machine operation (OTM)	<input type="checkbox"/>
	Possession only operation	<input type="checkbox"/>
	Maintainer of vehicles or infrastructure	<input type="checkbox"/>
	Rolling stock manufacturer or company (incl. Leasing companies)	<input type="checkbox"/>
	Metro system (e.g. London Underground, Tyne & Wear Metro)	<input type="checkbox"/>
	Light railway	<input type="checkbox"/>
	Tramway	<input type="checkbox"/>
	Railway (or other transport system) operating under 40kph	<input type="checkbox"/>
	Trade union	<input type="checkbox"/>
	Passenger groups	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		
6.2	If known, could you please indicate your organisation's annual turnover for 2006:	£
6.3	If known, could you please indicate your organisation's total number of direct employees (i.e. not including subcontractors) in 2006:	
6.4	If known, could you please indicate your organisation's total number of contracted workforce (i.e. not directly employed) in 2006:	
6.5	If applicable, could you please indicate the total number of passenger kilometres travelled by your organisation in 2006:	Tick here if non-applicable: <input type="checkbox"/>
6.6	If applicable, could you please indicate the amount of freight tonnage moved by your organisation in 2006:	Tick here if non-applicable: <input type="checkbox"/>

7 Implementation of ROGS

SAFETY MANAGEMENT SYSTEM (SMS)

7.1	Do you have a safety management system which is ROGS compliant?	Yes	<input type="checkbox"/>
		No	<input type="checkbox"/>
		Not sure	<input type="checkbox"/>
If <i>No</i> or <i>Not sure</i> please go straight to Question 7.9			
7.2	To what extent have you had to change or adapt your existing safety management system in order to fully address the requirements for an SMS under ROGS? (Select one box)	A completely new system was required	<input type="checkbox"/>
		Our existing system required major changes	<input type="checkbox"/>
		Our existing system required minor changes	<input type="checkbox"/>
		Our existing system was suitable in its current format	<input type="checkbox"/>
7.3	If action was required, what new activities did you undertake as a result of ROGS? (Select all boxes that apply)	Audit and review of current system	<input type="checkbox"/>
		Changed specific work processes	<input type="checkbox"/>
		Changed written procedures	<input type="checkbox"/>
		Changed safety policy statement	<input type="checkbox"/>
		Changed the way risks are managed	<input type="checkbox"/>
		Set new safety targets	<input type="checkbox"/>
		Changed current training provisions	<input type="checkbox"/>
		Changed the way safety information is managed	<input type="checkbox"/>
		Changed accident / near miss investigation process	<input type="checkbox"/>
		Changed emergency planning process	<input type="checkbox"/>
		Changed process for evaluating the effectiveness of the actual SMS	<input type="checkbox"/>
		Integrated the SMS with other organisational system/s	<input type="checkbox"/>
		Other	<input type="checkbox"/>
	If <i>Other</i> actions were required, please specify:		

7.4	Please estimate the costs your organisation incurred as a result of developing an SMS under ROGS. Please provide details on at least one of the following costs:	Estimated number of hours spent	
		Estimated number of days spent	
		Estimated actual cost in £'s spent	
7.5	Please estimate the costs your organisation incurred as a result of maintaining an SMS under ROGS, per year . Please provide details on at least one of the following costs:	Estimated number of hours spent	
		Estimated number of days spent	
		Estimated actual cost in £'s spent	
7.6	Compared to your costs to maintain a safety case, please indicate whether SMS maintenance costs under ROGS are:	Similar	<input type="checkbox"/>
		More expensive	<input type="checkbox"/>
		Less expensive	<input type="checkbox"/>
7.7	What are the main challenges in maintaining an SMS under ROGS? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
		Time and / or resource pressures	<input type="checkbox"/>
		Organisational / cultural barriers	<input type="checkbox"/>
		Communicating the SMS to the organisation	<input type="checkbox"/>
		No challenges encountered	<input type="checkbox"/>
		Other	<input type="checkbox"/>
		If <i>Other</i> , please specify:	
7.8	To what extent do you think SMS under ROGS has affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
		Hindered safety	<input type="checkbox"/>
		No change	<input type="checkbox"/>
		Not sure	<input type="checkbox"/>
		Other	<input type="checkbox"/>
		If <i>Other</i> , please specify:	

SAFETY VERIFICATION (SV)			
7.9	Do you have processes in place for ensuring safe introduction of new / altered infrastructure or rolling stock to your operation? (Select all boxes that apply)	Use "notified body" under the Railways (Interoperability) Regulations 2006 (RIR)	<input type="checkbox"/>
		SMS change management process	<input type="checkbox"/>
		Safety verification under ROGS	<input type="checkbox"/>
		Not applicable	<input type="checkbox"/>
If only 'Use "notified body" under RIR' and / or 'Not applicable' apply to your organisation please go straight to Question 7.15.			

7.10	To what extent have you had to change or adapt your existing processes in order to fully address SV requirements under ROGS? (Select one box)	A completely new process was required	<input type="checkbox"/>
		Our existing process required major changes	<input type="checkbox"/>
		Our existing process required minor changes	<input type="checkbox"/>
		Our existing process was suitable in its current format	<input type="checkbox"/>
7.11	If action was required, what activities did you undertake as a result of ROGS? (Select all boxes that apply)	Audit and review of current system	<input type="checkbox"/>
		Introduced system for deciding when SV must be applied	<input type="checkbox"/>
		Identification of a suitable independent competent person/s (ICP)	<input type="checkbox"/>
		Changed written SV scheme	<input type="checkbox"/>
		Changed way information is managed to ensure easy access for ICP	<input type="checkbox"/>
		Introduced process for handling ICP recommendations	<input type="checkbox"/>
		Changed process for evaluating the effectiveness of the SV process	<input type="checkbox"/>
		Other	<input type="checkbox"/>
If <i>Other</i> actions were required, please specify:			
7.12	Please estimate the costs your organisation incurred as a result of undertaking SV under ROGS, per year . Please provide details on at least one of the following costs:	Estimated number of hours spent	
		Estimated number of days spent	
		Estimated actual cost in £'s spent	
7.13	What are the main challenges in meeting the requirements of SV? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
		Time and / or resource pressures	<input type="checkbox"/>
		Organisational / cultural barriers	<input type="checkbox"/>
		Knowing when to apply safety verification	<input type="checkbox"/>
		Identifying / appointing an ICP	<input type="checkbox"/>
		No challenges encountered	<input type="checkbox"/>
		Other	<input type="checkbox"/>
If <i>Other</i> , please specify:			

7.14 To what extent do you think SV under ROGS has affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>
	If <i>Other</i> , please specify:	

SAFETY CERTIFICATION			
7.15 Do you have a safety certificate under ROGS? (Select one box)	Yes	<input type="checkbox"/>	
	No	<input type="checkbox"/>	
	Not sure	<input type="checkbox"/>	
If <i>No</i> or <i>Not sure</i> please go straight to Question 7.23			
7.16 Please tick which stages in the safety certification assessment process you have completed. (Select all boxes that apply)	Preparing the application	<input type="checkbox"/>	
	Submission to ORR and affected parties	<input type="checkbox"/>	
	Main ORR assessment	<input type="checkbox"/>	
	Meeting with ORR to discuss assessment findings	<input type="checkbox"/>	
	Resolving outstanding issues	<input type="checkbox"/>	
	ORR final decision and sign-off	<input type="checkbox"/>	
7.17 Please estimate the costs your organisation incurred as a result of your initial application for a safety certificate under ROGS or an amendment to it, per year . Please provide details on at least one of the following costs:		Initial application	Amend
	Estimated number of hours spent		
	Estimated number of days spent		
	Estimated actual cost in £'s spent		
7.18 What are the main challenges? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>	
	Time and / or resource pressures	<input type="checkbox"/>	
	Organisational / cultural barriers	<input type="checkbox"/>	
	Consulting affected parties	<input type="checkbox"/>	
	Liaison with ORR	<input type="checkbox"/>	
	Employee involvement	<input type="checkbox"/>	
	No challenges encountered	<input type="checkbox"/>	
	Other	<input type="checkbox"/>	
If <i>Other</i> , please specify:			

7.19	Compared to Railway Safety Case applications, the time spent on applying for a safety certificate was: (Select one box)	More	<input type="checkbox"/>
		Less	<input type="checkbox"/>
		About the same	<input type="checkbox"/>
7.20	Compared to Railway Safety Case applications, the cost of applying for a safety certificate was: (Select one box)	More	<input type="checkbox"/>
		Less	<input type="checkbox"/>
		About the same	<input type="checkbox"/>
7.21	Do you think that improvements could be made to the application process?	Yes	<input type="checkbox"/>
		No	<input type="checkbox"/>
		No opinion	<input type="checkbox"/>
If Yes, please specify:			
7.22	To what extent do you think safety certification under ROGS has affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
		Hindered safety	<input type="checkbox"/>
		No change	<input type="checkbox"/>
		Not sure	<input type="checkbox"/>
		Other	<input type="checkbox"/>
If <i>Other</i> , please specify:			

SAFETY AUTHORISATION				
7.23	Do you have safety authorisation under ROGS? (Select one box)	Yes	<input type="checkbox"/>	
		No	<input type="checkbox"/>	
		Not sure	<input type="checkbox"/>	
If <i>No</i> or <i>Not sure</i> please go straight to Question 7.31				
7.24	Please tick which stages in the safety authorisation assessment process you have completed. (Select all boxes that apply)	Preparing the application	<input type="checkbox"/>	
		Submission to ORR and affected parties	<input type="checkbox"/>	
		Main ORR assessment	<input type="checkbox"/>	
		Meeting with ORR to discuss assessment findings	<input type="checkbox"/>	
		Resolving outstanding issues	<input type="checkbox"/>	
		ORR final decision and sign-off	<input type="checkbox"/>	
7.25	Please estimate the costs your organisation incurred as a result of your initial application for a safety authorisation under ROGS or an amendment to it, per year . Please provide details on at least one of the following costs:		Initial application	Amend
		Estimated number of hours spent		
		Estimated number of days spent		
		Estimated actual cost in £'s spent		

7.26	What are the main challenges? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
		Time and / or resource pressures	<input type="checkbox"/>
		Organisational / cultural barriers	<input type="checkbox"/>
		Consulting affected parties	<input type="checkbox"/>
		Liaison with ORR	<input type="checkbox"/>
		Employee involvement	<input type="checkbox"/>
		No challenges encountered	<input type="checkbox"/>
		Other	<input type="checkbox"/>
If <i>Other</i> , please specify:			
7.27	Compared to Railway Safety Case applications, the time spent on applying for a safety authorisation was: (Select one box)	More	<input type="checkbox"/>
		Less	<input type="checkbox"/>
		About the same	<input type="checkbox"/>
7.28	Compared to Railway Safety Case applications, the cost of applying for a safety authorisation was: (Select one box)	More	<input type="checkbox"/>
		Less	<input type="checkbox"/>
		About the same	<input type="checkbox"/>
7.29	Do you think that improvements could be made to the application process?	Yes	<input type="checkbox"/>
		No	<input type="checkbox"/>
		No opinion	<input type="checkbox"/>
If Yes, please specify:			
7.30	To what extent do you think safety authorisation under ROGS has affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
		Hindered safety	<input type="checkbox"/>
		No change	<input type="checkbox"/>
		Not sure	<input type="checkbox"/>
		Other	<input type="checkbox"/>
If <i>Other</i> , please specify:			

RISK ASSESSMENT			
7.31	Do the regulations for conducting a risk assessment in accordance with Regulation 19 of ROGS apply to your organisation?	Yes	<input type="checkbox"/>
		No	<input type="checkbox"/>
		Not sure	<input type="checkbox"/>
If <i>No</i> or <i>Not sure</i> please go straight to Question 7.37			

7.32	To what extent have you had to change your existing arrangements for risk assessment to address the requirements under ROGS? (Select one box)	Completely new risk assessments were required	<input type="checkbox"/>
		Our existing risk assessments required major changes	<input type="checkbox"/>
		Our existing risk assessments required minor changes	<input type="checkbox"/>
		Our existing risk assessments were suitable	<input type="checkbox"/>
		Not applicable	<input type="checkbox"/>
7.33	If action was required, what activities did you undertake as a result of ROGS? (Select all boxes that apply)	Audit and review of current risk assessment process	<input type="checkbox"/>
		Conducting new risk assessment	<input type="checkbox"/>
		Changed management of risk assessment information	<input type="checkbox"/>
		Other	<input type="checkbox"/>
		If <i>Other</i> actions were required, please specify:	
7.34	If new risk assessments or changes were required, please estimate the costs to your organisation incurred as a result of these activities. Please provide details on at least one of the following costs:	Estimated number of hours spent	
		Estimated number of days spent	
		Estimated actual cost in £'s spent	
7.35	What were the main challenges you faced in adapting your arrangements to meet the requirements of Regulation 19? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
		Time and / or resource pressures	<input type="checkbox"/>
		Organisational / cultural barriers	<input type="checkbox"/>
		Involving employees and their representatives	<input type="checkbox"/>
		Applying targets / standards	<input type="checkbox"/>
		No challenges encountered	<input type="checkbox"/>
		Other	<input type="checkbox"/>
		If <i>Other</i> , please specify:	
7.36	In summary, how do you feel about the changes brought about to risk assessment by ROGS? (Select one box)	Improved safety	<input type="checkbox"/>
		Hindered safety	<input type="checkbox"/>
		No change	<input type="checkbox"/>
		Not sure	<input type="checkbox"/>
		Other	<input type="checkbox"/>
If <i>Other</i> , please specify:			

ANNUAL SAFETY REPORT		
7.37 Are you required to compile and submit an annual safety report under ROGS? (Select one box)	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
If <i>No</i> or <i>Not sure</i> please go straight to Question 7.42		
7.38 Please estimate the costs your organisation incurred as a result of submitting an annual safety report, per year . Please provide details on at least one of the following costs:	Estimated number of hours spent	
	Estimated number of days spent	
	Estimated actual cost in £'s spent	
7.39 Please describe briefly the activities that you undertook in incurring these costs:		
7.40 What are the main challenges in preparing and submitting a report? (Select all boxes that apply) If <i>Other</i> , please specify:	Understanding the requirements	<input type="checkbox"/>
	Time and / or resource pressures	<input type="checkbox"/>
	Gathering and compiling the information	<input type="checkbox"/>
	Meeting the deadline	<input type="checkbox"/>
	No challenges encountered	<input type="checkbox"/>
	Other	<input type="checkbox"/>
7.41 To what extent do you think annual safety reports under ROGS have affected safety? (Select one box) If <i>Other</i> , please specify:	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>

DUTY OF CO-OPERATION		
7.42 To what extent does the new duty of co-operation cause you to revise your processes for achieving co-operation? (Select one box)	A completely new set of processes was required	<input type="checkbox"/>
	Our existing set of processes required major changes	<input type="checkbox"/>
	Our existing set of processes required minor changes	<input type="checkbox"/>
	Our existing set of processes was suitable in their current format	<input type="checkbox"/>
	Not applicable	<input type="checkbox"/>
7.43 What activities do you undertake to comply with the duty under ROGS? (Select all boxes that apply)	Audit and review of existing methods of co-operation	<input type="checkbox"/>
	Identify areas where the majority of operator interfacing occurs	<input type="checkbox"/>
	Develop written procedures for interfacing with other duty holders	<input type="checkbox"/>
	Appoint representatives tasked with interfacing with other duty holders	<input type="checkbox"/>
	Develop methods for evaluating effectiveness of co-operation	<input type="checkbox"/>
	Other	<input type="checkbox"/>
	If <i>Other</i> , please specify:	
7.44 What are the main challenges in meeting the duty? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
	Time and / or resource pressures	<input type="checkbox"/>
	Organisational / cultural barriers	<input type="checkbox"/>
	Other duty holders not co-operating	<input type="checkbox"/>
	No challenges encountered	<input type="checkbox"/>
	Other	<input type="checkbox"/>
	If <i>Other</i> , please specify:	
7.45 To what extent do you think the duty of co-operation has affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>
	If <i>Other</i> , please specify:	

SAFETY CRITICAL WORK		
7.46 To what extent have the duties relating to managing the competence, fitness and fatigue of individuals performing safety critical tasks caused you to revise current methods of working in order to comply with ROGS? (Select one box)	A completely new set of methods was required	<input type="checkbox"/>
	Our existing set of methods required major changes	<input type="checkbox"/>
	Our existing set of methods required minor changes	<input type="checkbox"/>
	Our existing set of methods was suitable in their current format	<input type="checkbox"/>
	Not applicable	<input type="checkbox"/>
7.47 What activities do you undertake as a result of ROGS? (Select all boxes that apply)	Identify safety critical work undertaken in organisation	<input type="checkbox"/>
	Identify workers undertaking safety critical work and those managing them	<input type="checkbox"/>
	Introduce competency management system	<input type="checkbox"/>
	Review factors which influence worker fatigue (e.g. shift patterns, frequency of breaks, commute time etc.)	<input type="checkbox"/>
	Review contractors arrangements for managing safety critical work	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		
7.48 What are the main challenges in meeting the duty? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
	Time and / or resource pressures	<input type="checkbox"/>
	Organisational / cultural barriers	<input type="checkbox"/>
	Training staff and managers	<input type="checkbox"/>
	No challenges encountered	<input type="checkbox"/>
	Other	<input type="checkbox"/>
	If <i>Other</i> , please specify:	
7.49 To what extent do you think duties regarding safety critical work have affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>
	If <i>Other</i> , please specify:	

8 Additional comments

8.1 Are there any additional comments that you would like to make?

Please save the completed questionnaire to your desktop and then email it as an attachment to natashaperry@bomelconsult.com, marking the email subject as “ROGS survey” by 5pm on Wednesday 19th September 2007.

Thank you, again, for your help and assistance in this important study

YEAR 1 SURVEY

THE RAILWAYS AND OTHER GUIDED TRANSPORT SYSTEMS (SAFETY) REGULATIONS 2006 (ROGS)

ABOUT THIS SURVEY

- BOMEL is an independent research and consultancy organisation. We are carrying out research on behalf of the Office of Rail Regulation (ORR) to monitor and evaluate the impact of ROGS.
- This research involves a series of activities over three years designed to gather and analyse safety performance information in order to assess whether ROGS have met their original aims and objectives. This survey is the second of four that we will issue during the three year period.
- We appreciate you are busy and we have therefore tried to keep the survey as short and interesting as possible. We value your views and appreciate the time taken to complete this survey.

WHO SHOULD COMPLETE THIS SURVEY

- We are seeking views from a representative sample of organisations within the rail industry regarding ROGS.
- This questionnaire is ideally intended for those with a responsibility for safety (e.g. Safety Managers, Supervisors, Safety Representatives etc.).
- The survey covers the following areas:

PART 1 – FOR EVERYONE TO COMPLETE

1. Organisational details
2. Awareness and understanding of ROGS
3. Industry safety culture
4. General feedback on ROGS and ORR
5. Additional comments

PART 2 – FOR DUTY HOLDERS ONLY TO COMPLETE

6. Specific duty holder details
7. Implementation of ROGS
8. Additional comments

CONFIDENTIALITY

All responses will be treated in the strictest confidence. Your name will not be passed to the ORR or made available to any other parties without your consent. Responses are being obtained from a range of organisations. The results of this survey will be aggregated and presented so that individual respondents will not be identifiable. Likewise, our report will not name individual contributors.

COMPLETING THE SURVEY

Please respond in terms of your own organisation. If your organisation is part of a larger group but essentially works independently, then please answer for your organisation about which you have direct knowledge, and not the group. Please provide as many answers as you can but leave blank those questions you cannot answer. The survey should take no longer than 30 minutes to complete.

CONTACT DETAILS

BOMEL: Mandy Dow, mandydow@bomelconsult.com, 01753 216800
Thames Central, 90 Hatfield Road, Slough, Berkshire, SL1 1QE

Thank you for your assistance with this important study.

PART 1 – FOR EVERYONE TO COMPLETE

1 Organisational details

This section (1 – Organisational details) will remain confidential to BOMEL only	
1.1 Your name:	
If you participated in the first survey and your details have not changed you do not need to complete questions 1.2 to 1.6 again	
1.2 Job title:	
1.3 Organisation name:	
1.4 Telephone No:	
1.5 Email:	
1.6 Website:	

2 Awareness and understanding of ROGS

	Strongly agree	Agree	Neither	Disagree	Strongly disagree	No opinion
2.1 Please provide your views on the following statement by ticking the box which most accurately reflects your opinion: <i>“I am aware of ROGS and their contents”</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2 Please provide your views on the following statement by ticking the box which most accurately reflects your opinion: <i>“I understand the requirements of ROGS”</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.3 Do you use any guidance to help you understand ROGS? (If No go straight to question 2.7)	Yes				<input type="checkbox"/>	
	No				<input type="checkbox"/>	
2.4 If Yes, please indicate what guidance you use. (Select all boxes that apply) If <i>Other</i> , please specify:	ORR published guidance				<input type="checkbox"/>	
	RSSB published guidance				<input type="checkbox"/>	
	Internal organisational guidance				<input type="checkbox"/>	
	Other				<input type="checkbox"/>	

		Very useful	Useful	Not useful	Not sure	Not applicable	
2.5	If you indicated using any of the following pieces of guidance, please indicate how useful you find the guidance:	ORR published guidance	<input type="checkbox"/>				
		RSSB published guidance	<input type="checkbox"/>				
		Internal organisational guidance	<input type="checkbox"/>				
		Other (as specified above)	<input type="checkbox"/>				
2.6	In relation to the answers you gave in Question 2.5, please briefly explain why you felt each piece of guidance is either 'very useful', 'useful', 'not useful' etc.	ORR published guidance					
		RSSB published guidance					
		Internal organisational guidance					
		Other (as specified above)					
2.7	Do you use any other help to assist you in understanding ROGS? (If No go straight to question 3.1)	Yes				<input type="checkbox"/>	
		No				<input type="checkbox"/>	
2.8	If Yes, please specify what help you use. (Select all boxes that apply)	External consultant				<input type="checkbox"/>	
		Internal consultant				<input type="checkbox"/>	
		Direct contact with ORR				<input type="checkbox"/>	
		Direct contact with RSSB				<input type="checkbox"/>	
		Trade union				<input type="checkbox"/>	
		Industry networking				<input type="checkbox"/>	
		Other				<input type="checkbox"/>	
	If Other, please specify:						

3 Industry safety culture

PLEASE PROVIDE YOUR VIEWS ON THE FOLLOWING SAFETY STATEMENTS BY TICKING THE BOX WHICH MOST ACCURATELY REFLECTS YOUR OPINION

	Strongly agree	Agree	Neither	Disagree	Strongly disagree	No opinion
3.1 There are good communications here about health and safety issues	<input type="checkbox"/>					
3.2 The company really cares about the health and safety of the people who work here	<input type="checkbox"/>					
3.3 My immediate boss often talks to me about health and safety	<input type="checkbox"/>					
3.4 Supervisors are good at detecting unsafe behaviour	<input type="checkbox"/>					
3.5 There is nothing I can do to further improve health and safety here	<input type="checkbox"/>					
3.6 I trust my workmates with my health and safety	<input type="checkbox"/>					
3.7 I am clear about what my responsibilities are for health and safety	<input type="checkbox"/>					
3.8 People here do not remember much of the health and safety training which applies to their job	<input type="checkbox"/>					
3.9 People here always work safely even when they are not being supervised	<input type="checkbox"/>					
3.10 People here think health and safety is not their problem – it's up to management and others	<input type="checkbox"/>					
3.11 Some people here have a poor understanding of the risks associated with their work	<input type="checkbox"/>					
3.12 There are always enough people available to get the job done according to the health and safety procedures/instructions/rules	<input type="checkbox"/>					
3.13 Near misses are always reported	<input type="checkbox"/>					

3.14 Do management involve staff at all levels in safety related decision making?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
Please explain why:		
3.15 Is there a message conveyed to all staff that safety is a key priority?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
Please explain why:		
3.16 If Yes to Question 3.15, who is responsible for communicating the safety priority message to all staff? (Select one box)	Senior management	<input type="checkbox"/>
	Middle management	<input type="checkbox"/>
	Safety representatives	<input type="checkbox"/>
	Site work supervisors	<input type="checkbox"/>
	A mixture of the above	<input type="checkbox"/>
	No one specifically has that responsibility	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		
3.17 If Yes to Question 3.15, how is the message communicated to staff that safety is a key priority? (e.g. verbally as part of normal working operations; in writing through newsletters; verbally in company and project meetings etc.)		
3.18 Are there any circumstances where staff are placed under pressure to meet operational performance objectives?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
Please explain why:		
3.19 If Yes to Question 3.18, do you think this pressure affects safety?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
Please explain why:		

4 General feedback on ROGS and ORR

4.1 Has ROGS changed the way in which safety has been managed in your organisation? Please explain why:	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
4.2 If changes have been required, how have they impacted on your business operations? (Select one box) Please explain why:	Positive impact	<input type="checkbox"/>
	Neutral impact	<input type="checkbox"/>
	Negative impact	<input type="checkbox"/>
4.3 Has ROGS made any difference to safety related decision making? Please explain why:	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
4.4 Please provide your views on the following statement by ticking the box which most accurately reflects your opinion: <i>“From experience, I believe that standards of safety are the same under ROGS”</i>	Strongly agree Agree Neither Disagree Strongly disagree No opinion	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4.5 Could more be done to reduce the administrative burden of the regulations? Please explain why:	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	No opinion	<input type="checkbox"/>
4.6 Did you request and / or receive help from ORR regarding ROGS? (Select one box)	Requested and received help	<input type="checkbox"/>
	Requested help, but did not receive help	<input type="checkbox"/>
	Did not request any help	<input type="checkbox"/>
4.7 If you requested help, what did you require help with?		
4.8 If you received help, how would you describe the help you received from ORR? (Select one box)	Excellent	<input type="checkbox"/>
	Good	<input type="checkbox"/>
	Average	<input type="checkbox"/>
	Poor	<input type="checkbox"/>
	Very poor	<input type="checkbox"/>
	No opinion	<input type="checkbox"/>

4.9 Approximately how many times have you received a visit from an ORR inspector (HMRI) in 2007? (Select one box)	No visits in 2007	<input type="checkbox"/>
	Between 1 and 2	<input type="checkbox"/>
	Between 3 and 5	<input type="checkbox"/>
	Between 6 and 10	<input type="checkbox"/>
	More than 10	<input type="checkbox"/>
	If preferred, please estimate the number of times:	
4.10 If you have received an inspector visit in 2007, typically how much time did the ORR inspector spend with your organisation (on one visit)? (Select one box)	Less than 1 hour	<input type="checkbox"/>
	1 to 2 hours	<input type="checkbox"/>
	3 to 5 hours	<input type="checkbox"/>
	6 to 8 hours	<input type="checkbox"/>
	More than 8 hours	<input type="checkbox"/>
	If preferred, please estimate the time in hours:	
4.11 How does this compare with the time spent on a visit before ROGS came into force?	More time spent since ROGS	<input type="checkbox"/>
	About the same	<input type="checkbox"/>
	Less time spent since ROGS	<input type="checkbox"/>
4.12 What else could ORR do to help you with ROGS?		

5 Additional comments

5.1	Are there any additional comments that you would like to make?

PART 2 – FOR DUTY HOLDERS ONLY TO COMPLETE

6 Specific duty holder details

This section will be used to put cost data into context		
6.1 What best describes the role of your organisation?: (Select one box only or specify below)	Infrastructure manager	<input type="checkbox"/>
	Train operating company (TOC)	<input type="checkbox"/>
	Freight operating company (FOC)	<input type="checkbox"/>
	On Track Machine operation (OTM)	<input type="checkbox"/>
	Possession only operation	<input type="checkbox"/>
	Maintainer of vehicles or infrastructure	<input type="checkbox"/>
	Rolling stock manufacturer or company (incl. Leasing companies)	<input type="checkbox"/>
	Metro system (e.g. London Underground, Tyne & Wear Metro)	<input type="checkbox"/>
	Light railway	<input type="checkbox"/>
	Tramway	<input type="checkbox"/>
	Railway (or other transport system) operating under 40kph	<input type="checkbox"/>
	Trade union	<input type="checkbox"/>
	Passenger groups	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		
6.2	If known, could you please indicate your organisation's annual turnover for 2007:	£
6.3	If known, could you please indicate your organisation's total number of direct employees (i.e. not including subcontractors) in 2007:	
6.4	If known, could you please indicate your organisation's total number of contracted workforce (i.e. not directly employed) in 2007:	
6.5	If applicable, could you please indicate the total number of passenger kilometres travelled by your organisation in 2007:	Tick here if non-applicable: <input type="checkbox"/>
6.6	If applicable, could you please indicate the amount of freight tonnage moved by your organisation in 2007:	Tick here if non-applicable: <input type="checkbox"/>

7 Implementation of ROGS

SAFETY MANAGEMENT SYSTEM (SMS)

7.1	Do you have a safety management system which is ROGS compliant?	Yes	<input type="checkbox"/>
		No	<input type="checkbox"/>
		Not sure	<input type="checkbox"/>
If <i>No</i> or <i>Not sure</i> please go straight to Question 7.9			
7.2	To what extent have you had to change or adapt your existing safety management system in order to fully address the requirements for an SMS under ROGS? (Select one box)	A completely new system was required	<input type="checkbox"/>
		Our existing system required major changes	<input type="checkbox"/>
		Our existing system required minor changes	<input type="checkbox"/>
		Our existing system was suitable in its current format	<input type="checkbox"/>
7.3	If action was required, what new activities did you undertake as a result of ROGS? (Select all boxes that apply)	Audit and review of current system	<input type="checkbox"/>
		Changed specific work processes	<input type="checkbox"/>
		Changed written procedures	<input type="checkbox"/>
		Changed safety policy statement	<input type="checkbox"/>
		Changed the way risks are managed	<input type="checkbox"/>
		Set new safety targets	<input type="checkbox"/>
		Changed current training provisions	<input type="checkbox"/>
		Changed the way safety information is managed	<input type="checkbox"/>
		Changed accident / near miss investigation process	<input type="checkbox"/>
		Changed emergency planning process	<input type="checkbox"/>
		Changed process for evaluating the effectiveness of the actual SMS	<input type="checkbox"/>
		Integrated the SMS with other organisational system/s	<input type="checkbox"/>
		Other	<input type="checkbox"/>
	If <i>Other</i> actions were required, please specify:		

7.4	Please estimate the costs your organisation incurred as a result of developing an SMS under ROGS. Please provide details on at least one of the following costs:	Estimated number of hours spent	
		Estimated number of days spent	
		Estimated actual cost in £'s spent	
7.5	Please estimate the costs your organisation incurred as a result of maintaining an SMS under ROGS, per year . Please provide details on at least one of the following costs:	Estimated number of hours spent	
		Estimated number of days spent	
		Estimated actual cost in £'s spent	
7.6	Compared to your costs to maintain a safety case, please indicate whether SMS maintenance costs under ROGS are:	Similar	<input type="checkbox"/>
		More expensive	<input type="checkbox"/>
		Less expensive	<input type="checkbox"/>
7.7	What are the main challenges in maintaining an SMS under ROGS? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
		Time and / or resource pressures	<input type="checkbox"/>
		Organisational / cultural barriers	<input type="checkbox"/>
		Communicating the SMS to the organisation	<input type="checkbox"/>
		No challenges encountered	<input type="checkbox"/>
		Other	<input type="checkbox"/>
		If <i>Other</i> , please specify:	
7.8	To what extent do you think SMS under ROGS has affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
		Hindered safety	<input type="checkbox"/>
		No change	<input type="checkbox"/>
		Not sure	<input type="checkbox"/>
		Other	<input type="checkbox"/>
		If <i>Other</i> , please specify:	

SAFETY VERIFICATION (SV)			
7.9	Do you have processes in place for ensuring safe introduction of new / altered infrastructure or rolling stock to your operation? (Select all boxes that apply)	Use "notified body" under the Railways (Interoperability) Regulations 2006 (RIR)	<input type="checkbox"/>
		SMS change management process	<input type="checkbox"/>
		Safety verification under ROGS	<input type="checkbox"/>
		Not applicable	<input type="checkbox"/>
If only 'Use "notified body" under RIR' and / or 'Not applicable' apply to your organisation please go straight to Question 7.15.			

7.10	To what extent have you had to change or adapt your existing processes in order to fully address SV requirements under ROGS? (Select one box)	A completely new process was required	<input type="checkbox"/>
		Our existing process required major changes	<input type="checkbox"/>
		Our existing process required minor changes	<input type="checkbox"/>
		Our existing process was suitable in its current format	<input type="checkbox"/>
7.11	If action was required, what activities did you undertake as a result of ROGS? (Select all boxes that apply)	Audit and review of current system	<input type="checkbox"/>
		Introduced system for deciding when SV must be applied	<input type="checkbox"/>
		Identification of a suitable independent competent person/s (ICP)	<input type="checkbox"/>
		Changed written SV scheme	<input type="checkbox"/>
		Changed way information is managed to ensure easy access for ICP	<input type="checkbox"/>
		Introduced process for handling ICP recommendations	<input type="checkbox"/>
		Changed process for evaluating the effectiveness of the SV process	<input type="checkbox"/>
		Other	<input type="checkbox"/>
If <i>Other</i> actions were required, please specify:			
7.12	Please estimate the costs your organisation incurred as a result of undertaking SV under ROGS, per year . Please provide details on at least one of the following costs:	Estimated number of hours spent	
		Estimated number of days spent	
		Estimated actual cost in £'s spent	
7.13	What are the main challenges in meeting the requirements of SV? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
		Time and / or resource pressures	<input type="checkbox"/>
		Organisational / cultural barriers	<input type="checkbox"/>
		Knowing when to apply safety verification	<input type="checkbox"/>
		Identifying / appointing an ICP	<input type="checkbox"/>
		No challenges encountered	<input type="checkbox"/>
		Other	<input type="checkbox"/>
If <i>Other</i> , please specify:			

7.14 To what extent do you think SV under ROGS has affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>
	If <i>Other</i> , please specify:	

SAFETY CERTIFICATION			
7.15 Do you have a safety certificate under ROGS? (Select one box)	Yes	<input type="checkbox"/>	
	No	<input type="checkbox"/>	
	Not sure	<input type="checkbox"/>	
If <i>No</i> or <i>Not sure</i> please go straight to Question 7.23			
7.16 Please tick ALL of the stages in the safety certification assessment process you have completed. (Select ALL boxes that apply)	Preparing the application	<input type="checkbox"/>	
	Submission to ORR and affected parties	<input type="checkbox"/>	
	Main ORR assessment	<input type="checkbox"/>	
	Meeting with ORR to discuss assessment findings	<input type="checkbox"/>	
	Resolving outstanding issues	<input type="checkbox"/>	
	ORR final decision and sign-off	<input type="checkbox"/>	
7.17 Please estimate the costs your organisation incurred as a result of your initial application for a safety certificate under ROGS or an amendment to it, per year . Please provide details on at least one of the following costs:		Initial application	Amend
	Estimated number of hours spent		
	Estimated number of days spent		
	Estimated actual cost in £'s spent		
7.18 What are the main challenges? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>	
	Time and / or resource pressures	<input type="checkbox"/>	
	Organisational / cultural barriers	<input type="checkbox"/>	
	Consulting affected parties	<input type="checkbox"/>	
	Liaison with ORR	<input type="checkbox"/>	
	Employee involvement	<input type="checkbox"/>	
	No challenges encountered	<input type="checkbox"/>	
	Other	<input type="checkbox"/>	
If <i>Other</i> , please specify:			

7.19	Compared to Railway Safety Case applications, the time spent on applying for a safety certificate was: (Select one box)	More	<input type="checkbox"/>
		Less	<input type="checkbox"/>
		About the same	<input type="checkbox"/>
7.20	Compared to Railway Safety Case applications, the cost of applying for a safety certificate was: (Select one box)	More	<input type="checkbox"/>
		Less	<input type="checkbox"/>
		About the same	<input type="checkbox"/>
7.21	Do you think that improvements could be made to the application process?	Yes	<input type="checkbox"/>
		No	<input type="checkbox"/>
		No opinion	<input type="checkbox"/>
If Yes, please specify:			
7.22	To what extent do you think safety certification under ROGS has affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
		Hindered safety	<input type="checkbox"/>
		No change	<input type="checkbox"/>
		Not sure	<input type="checkbox"/>
		Other	<input type="checkbox"/>
		If <i>Other</i> , please specify:	

SAFETY AUTHORISATION				
7.23	Do you have safety authorisation under ROGS? (Select one box)	Yes	<input type="checkbox"/>	
		No	<input type="checkbox"/>	
		Not sure	<input type="checkbox"/>	
If <i>No</i> or <i>Not sure</i> please go straight to Question 7.31				
7.24	Please tick ALL of the stages in the safety authorisation assessment process you have completed. (Select ALL boxes that apply)	Preparing the application	<input type="checkbox"/>	
		Submission to ORR and affected parties	<input type="checkbox"/>	
		Main ORR assessment	<input type="checkbox"/>	
		Meeting with ORR to discuss assessment findings	<input type="checkbox"/>	
		Resolving outstanding issues	<input type="checkbox"/>	
		ORR final decision and sign-off	<input type="checkbox"/>	
7.25	Please estimate the costs your organisation incurred as a result of your initial application for a safety authorisation under ROGS or an amendment to it, per year . Please provide details on at least one of the following costs:		Initial application	Amend
		Estimated number of hours spent		
		Estimated number of days spent		
		Estimated actual cost in £'s spent		

7.26	What are the main challenges? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
		Time and / or resource pressures	<input type="checkbox"/>
		Organisational / cultural barriers	<input type="checkbox"/>
		Consulting affected parties	<input type="checkbox"/>
		Liaison with ORR	<input type="checkbox"/>
		Employee involvement	<input type="checkbox"/>
		No challenges encountered	<input type="checkbox"/>
		Other	<input type="checkbox"/>
If <i>Other</i> , please specify:			
7.27	Compared to Railway Safety Case applications, the time spent on applying for a safety authorisation was: (Select one box)	More	<input type="checkbox"/>
		Less	<input type="checkbox"/>
		About the same	<input type="checkbox"/>
7.28	Compared to Railway Safety Case applications, the cost of applying for a safety authorisation was: (Select one box)	More	<input type="checkbox"/>
		Less	<input type="checkbox"/>
		About the same	<input type="checkbox"/>
7.29	Do you think that improvements could be made to the application process?	Yes	<input type="checkbox"/>
		No	<input type="checkbox"/>
		No opinion	<input type="checkbox"/>
If Yes, please specify:			
7.30	To what extent do you think safety authorisation under ROGS has affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
		Hindered safety	<input type="checkbox"/>
		No change	<input type="checkbox"/>
		Not sure	<input type="checkbox"/>
		Other	<input type="checkbox"/>
If <i>Other</i> , please specify:			

RISK ASSESSMENT			
7.31	Do the regulations for conducting a risk assessment in accordance with Regulation 19 of ROGS apply to your organisation?	Yes	<input type="checkbox"/>
		No	<input type="checkbox"/>
		Not sure	<input type="checkbox"/>
If <i>No</i> or <i>Not sure</i> please go straight to Question 7.37			

7.32	To what extent have you had to change your existing arrangements for risk assessment to address the requirements under ROGS? (Select one box)	Completely new risk assessments were required	<input type="checkbox"/>
		Our existing risk assessments required major changes	<input type="checkbox"/>
		Our existing risk assessments required minor changes	<input type="checkbox"/>
		Our existing risk assessments were suitable	<input type="checkbox"/>
		Not applicable	<input type="checkbox"/>
7.33	If action was required, what activities did you undertake as a result of ROGS? (Select all boxes that apply)	Audit and review of current risk assessment process	<input type="checkbox"/>
		Conducting new risk assessment	<input type="checkbox"/>
		Changed management of risk assessment information	<input type="checkbox"/>
		Other	<input type="checkbox"/>
		If <i>Other</i> actions were required, please specify:	
7.34	If new risk assessments or changes were required, please estimate the costs to your organisation incurred as a result of these activities. Please provide details on at least one of the following costs:	Estimated number of hours spent	
		Estimated number of days spent	
		Estimated actual cost in £'s spent	
7.35	What were the main challenges you faced in adapting your arrangements to meet the requirements of Regulation 19? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
		Time and / or resource pressures	<input type="checkbox"/>
		Organisational / cultural barriers	<input type="checkbox"/>
		Involving employees and their representatives	<input type="checkbox"/>
		Applying targets / standards	<input type="checkbox"/>
		No challenges encountered	<input type="checkbox"/>
		Other	<input type="checkbox"/>
		If <i>Other</i> , please specify:	
7.36	In summary, how do you feel about the changes brought about to risk assessment by ROGS? (Select one box)	Improved safety	<input type="checkbox"/>
		Hindered safety	<input type="checkbox"/>
		No change	<input type="checkbox"/>
		Not sure	<input type="checkbox"/>
		Other	<input type="checkbox"/>
If <i>Other</i> , please specify:			

ANNUAL SAFETY REPORT		
7.37 Are you required to compile and submit an annual safety report under ROGS? (Select one box)	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
If <i>No</i> or <i>Not sure</i> please go straight to Question 7.42		
7.38 Please estimate the costs your organisation incurred as a result of submitting an annual safety report, per year . Please provide details on at least one of the following costs:	Estimated number of hours spent	
	Estimated number of days spent	
	Estimated actual cost in £'s spent	
7.39 Please describe briefly the activities that you undertook in incurring these costs:		
7.40 What are the main challenges in preparing and submitting a report? (Select all boxes that apply) If <i>Other</i> , please specify:	Understanding the requirements	<input type="checkbox"/>
	Time and / or resource pressures	<input type="checkbox"/>
	Gathering and compiling the information	<input type="checkbox"/>
	Meeting the deadline	<input type="checkbox"/>
	No challenges encountered	<input type="checkbox"/>
	Other	<input type="checkbox"/>
7.41 To what extent do you think annual safety reports under ROGS have affected safety? (Select one box) If <i>Other</i> , please specify:	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>

DUTY OF CO-OPERATION		
7.42 To what extent does the new duty of co-operation cause you to revise your processes for achieving co-operation? (Select one box)	A completely new set of processes was required	<input type="checkbox"/>
	Our existing set of processes required major changes	<input type="checkbox"/>
	Our existing set of processes required minor changes	<input type="checkbox"/>
	Our existing set of processes was suitable in their current format	<input type="checkbox"/>
	Not applicable	<input type="checkbox"/>
7.43 What activities do you undertake to comply with the duty under ROGS? (Select all boxes that apply)	Audit and review of existing methods of co-operation	<input type="checkbox"/>
	Identify areas where the majority of operator interfacing occurs	<input type="checkbox"/>
	Develop written procedures for interfacing with other duty holders	<input type="checkbox"/>
	Appoint representatives tasked with interfacing with other duty holders	<input type="checkbox"/>
	Develop methods for evaluating effectiveness of co-operation	<input type="checkbox"/>
	Other	<input type="checkbox"/>
	If <i>Other</i> , please specify:	
7.44 What are the main challenges in meeting the duty? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
	Time and / or resource pressures	<input type="checkbox"/>
	Organisational / cultural barriers	<input type="checkbox"/>
	Other duty holders not co-operating	<input type="checkbox"/>
	No challenges encountered	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		
7.45 To what extent do you think the duty of co-operation has affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		

SAFETY CRITICAL WORK		
7.46 To what extent have the duties relating to managing the competence, fitness and fatigue of individuals performing safety critical tasks caused you to revise current methods of working in order to comply with ROGS? (Select one box)	A completely new set of methods was required	<input type="checkbox"/>
	Our existing set of methods required major changes	<input type="checkbox"/>
	Our existing set of methods required minor changes	<input type="checkbox"/>
	Our existing set of methods was suitable in their current format	<input type="checkbox"/>
	Not applicable	<input type="checkbox"/>
7.47 What activities do you undertake as a result of ROGS? (Select all boxes that apply)	Identify safety critical work undertaken in organisation	<input type="checkbox"/>
	Identify workers undertaking safety critical work and those managing them	<input type="checkbox"/>
	Introduce competency management system	<input type="checkbox"/>
	Review factors which influence worker fatigue (e.g. shift patterns, frequency of breaks, commute time etc.)	<input type="checkbox"/>
	Review contractors arrangements for managing safety critical work	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		
7.48 What are the main challenges in meeting the duty? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
	Time and / or resource pressures	<input type="checkbox"/>
	Organisational / cultural barriers	<input type="checkbox"/>
	Training staff and managers	<input type="checkbox"/>
	No challenges encountered	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		
7.49 To what extent do you think duties regarding safety critical work have affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		

8 Additional comments

8.1 Are there any additional comments that you would like to make?

Please save the completed questionnaire to your desktop and then email it as an attachment to mandydow@bomelconsult.com, marking the email subject as “ROGS survey” by 5pm on Friday 30th May 2008.

Thank you, again, for your help and assistance in this important study

YEAR 2 SURVEY

THE RAILWAYS AND OTHER GUIDED TRANSPORT SYSTEMS (SAFETY) REGULATIONS 2006 (ROGS)

ABOUT THIS SURVEY

- Noble Denton BOMEL (ND BOMEL) is an independent research and consultancy organisation. We are carrying out research on behalf of the Office of Rail Regulation (ORR) to monitor and evaluate the impact of ROGS.
- This research involves a series of activities over three years designed to gather and analyse safety performance information in order to assess whether ROGS have met their original aims and objectives. This survey is the third of four that we will issue during the three year period.
- We appreciate you are busy and we have therefore tried to keep the survey as short and interesting as possible. ***We have also streamlined this Year 2 survey to help avoid you answering questions for a third time on issues that should not have changed.***
- We value your views and appreciate the time taken to complete this survey.

WHO SHOULD COMPLETE THIS SURVEY

- We are seeking views from a representative sample of organisations within the rail industry regarding ROGS.
- This questionnaire is ideally intended for those with a responsibility for safety (e.g. Safety Managers, Supervisors, Safety Representatives etc.).
- The survey covers the following areas:

PART 1 – FOR EVERYONE TO COMPLETE

1. Organisational details
2. Awareness and understanding of ROGS
3. Industry safety culture
4. General feedback on ROGS and ORR
5. Additional comments

PART 2 – FOR DUTY HOLDERS ONLY TO COMPLETE

6. Specific duty holder details
7. Implementation of ROGS
8. Additional comments

CONFIDENTIALITY

All responses will be treated in the strictest confidence. Your name will not be passed to the ORR or made available to any other parties without your consent. Responses are being obtained from a range of organisations. The results of this survey will be aggregated and presented so that individual respondents will not be identifiable. Likewise, our report will not name individual contributors.

COMPLETING THE SURVEY

Please respond in terms of your own organisation. If your organisation is part of a larger group but essentially works independently, then please answer for your organisation about which you have direct knowledge, and not the group. Please provide as many answers as you can but leave blank those questions you cannot answer. The survey should take no longer than 30 minutes to complete.

CONTACT DETAILS

ND BOMEL: Mandy Dow, mandydow@bomelconsult.com, 01753 216800
Thames Central, 90 Hatfield Road, Slough, Berkshire, SL1 1QE

Thank you for your assistance with this important study.

PART 1 – FOR EVERYONE TO COMPLETE

1 Organisational details

This section (1 – Organisational details) will remain confidential to ND BOMEL only

1.1 Your name:

If you participated in the first or second survey and your details have not changed you do not need to complete questions 1.2 to 1.6 again

1.2 Job title:

1.3 Organisation name:

1.4 Telephone No:

1.5 Email:

1.6 Website:

2 Awareness and understanding of ROGS

2.1 At this point in time, do you still use help to assist you in understanding and implementing ROGS? (If <i>No</i> go straight to question 3.1)	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
2.2 If Yes, please specify what help you use. (Select all boxes that apply)	ORR published guidance	<input type="checkbox"/>
	RSSB published guidance	<input type="checkbox"/>
	Internal organisational guidance	<input type="checkbox"/>
	External consultant	<input type="checkbox"/>
	Internal consultant	<input type="checkbox"/>
	Direct contact with ORR	<input type="checkbox"/>
	Direct contact with RSSB	<input type="checkbox"/>
	Trade union	<input type="checkbox"/>
	Industry networking	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		

3 Industry safety culture

PLEASE PROVIDE YOUR VIEWS ON THE FOLLOWING SAFETY STATEMENTS BY TICKING THE BOX WHICH MOST ACCURATELY REFLECTS YOUR OPINION

	Strongly agree	Agree	Neither	Disagree	Strongly disagree	No opinion
3.1 There are good communications here about health and safety issues	<input type="checkbox"/>					
3.2 The company really cares about the health and safety of the people who work here	<input type="checkbox"/>					
3.3 My immediate boss often talks to me about health and safety	<input type="checkbox"/>					
3.4 Supervisors are good at detecting unsafe behaviour	<input type="checkbox"/>					
3.5 There is nothing I can do to further improve health and safety here	<input type="checkbox"/>					
3.6 I trust my workmates with my health and safety	<input type="checkbox"/>					
3.7 I am clear about what my responsibilities are for health and safety	<input type="checkbox"/>					
3.8 People here do not remember much of the health and safety training which applies to their job	<input type="checkbox"/>					
3.9 People here always work safely even when they are not being supervised	<input type="checkbox"/>					
3.10 People here think health and safety is not their problem – it's up to management and others	<input type="checkbox"/>					
3.11 Some people here have a poor understanding of the risks associated with their work	<input type="checkbox"/>					
3.12 There are always enough people available to get the job done according to the health and safety procedures/instructions/rules	<input type="checkbox"/>					
3.13 Near misses are always reported	<input type="checkbox"/>					
3.14 Do management involve staff at all levels in safety related decision making?	Yes				<input type="checkbox"/>	
	No				<input type="checkbox"/>	
	Not sure				<input type="checkbox"/>	
Please explain why:						

3.15 Is there a message conveyed to all staff that safety is a key priority?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
Please explain why:		
3.16 If Yes to Question 3.15, who is responsible for communicating the safety priority message to all staff? (Select one box using the <i>DROP DOWN MENU</i>)	Senior management	Blank
	Middle management	
	Safety representatives	
	Site work supervisors	
	A mixture of the above	
	No one specifically has that responsibility	
	Other	
If <i>Other</i> , please specify:		
3.17 If Yes to Question 3.15, how is the message communicated to staff that safety is a key priority? (e.g. verbally as part of normal working operations; in writing through newsletters; verbally in company and project meetings etc.)		
3.18 Are there any circumstances where staff are placed under pressure to meet operational performance objectives?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
Please explain why:		
3.19 If Yes to Question 3.18, do you think this pressure affects safety?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
Please explain why:		

4 General feedback on ROGS and ORR

4.1 Has ROGS changed the way in which safety has been managed in your organisation? Please explain why:	Yes	<input type="checkbox"/>											
	No	<input type="checkbox"/>											
	Not sure	<input type="checkbox"/>											
4.2 If changes have been required, how have they impacted on your business operations? (Select one box) Please explain why:	Positive impact	<input type="checkbox"/>											
	Neutral impact	<input type="checkbox"/>											
	Negative impact	<input type="checkbox"/>											
4.3 Has ROGS made any difference to safety related decision making? Please explain why:	Yes	<input type="checkbox"/>											
	No	<input type="checkbox"/>											
	Not sure	<input type="checkbox"/>											
4.4 Please provide your views on the following statement by ticking the box which most accurately reflects your opinion: <p style="text-align: center;"><i>“From experience, I believe that standards of safety are the same under ROGS”</i></p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 16.6%; text-align: center;">Strongly agree</td> <td style="width: 16.6%; text-align: center;">Agree</td> <td style="width: 16.6%; text-align: center;">Neither</td> <td style="width: 16.6%; text-align: center;">Disagree</td> <td style="width: 16.6%; text-align: center;">Strongly disagree</td> <td style="width: 16.6%; text-align: center;">No opinion</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	Strongly agree	Agree	Neither	Disagree	Strongly disagree	No opinion	<input type="checkbox"/>					
Strongly agree	Agree	Neither	Disagree	Strongly disagree	No opinion								
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
4.5 Could more be done to reduce the administrative burden of the regulations? Please explain why:	Yes	<input type="checkbox"/>											
	No	<input type="checkbox"/>											
	No opinion	<input type="checkbox"/>											
4.6 Did you request and / or receive help from ORR regarding ROGS? (Select one box)	Requested and received help	<input type="checkbox"/>											
	Requested help, but did not receive help	<input type="checkbox"/>											
	Did not request any help	<input type="checkbox"/>											
4.7 If you requested help, what did you require help with?													
4.8 If you received help, how would you describe the help you received from ORR? (Select one box)	Excellent	<input type="checkbox"/>											
	Good	<input type="checkbox"/>											
	Average	<input type="checkbox"/>											
	Poor	<input type="checkbox"/>											
	Very poor	<input type="checkbox"/>											
	No opinion	<input type="checkbox"/>											

4.9 Approximately how many times have you received a visit from an ORR inspector (HMRI) in 2008? (Select one box)	No visits in 2007	<input type="checkbox"/>
	Between 1 and 2	<input type="checkbox"/>
	Between 3 and 5	<input type="checkbox"/>
	Between 6 and 10	<input type="checkbox"/>
	More than 10	<input type="checkbox"/>
	If preferred, please estimate the number of times:	
4.10 If you have received an inspector visit in 2008, typically how much time did the ORR inspector spend with your organisation (on one visit)? (Select one box)	Less than 1 hour	<input type="checkbox"/>
	1 to 2 hours	<input type="checkbox"/>
	3 to 5 hours	<input type="checkbox"/>
	6 to 8 hours	<input type="checkbox"/>
	More than 8 hours	<input type="checkbox"/>
	If preferred, please estimate the time in hours:	
4.11 How does this compare with the time spent on a visit before ROGS came into force?	More time spent since ROGS	<input type="checkbox"/>
	About the same	<input type="checkbox"/>
	Less time spent since ROGS	<input type="checkbox"/>
4.12 What else could ORR do to help you with ROGS?		

5 Additional comments

5.1 Are there any additional comments that you would like to make?
--

PART 2 – FOR DUTY HOLDERS ONLY TO COMPLETE

6 Specific duty holder details

This section will be used to put cost data into context		
6.1 What best describes the role of your organisation?: (Select one box from the <i>DROP DOWN MENU</i> only or specify below)	Infrastructure manager	Blank
	Train operating company (TOC)	
	Freight operating company (FOC)	
	On Track Machine operation (OTM)	
	Possession only operation	
	Maintainer of vehicles or infrastructure	
	Rolling stock manufacturer or company (incl. Leasing companies)	
	Metro system (e.g. London Underground, Tyne & Wear Metro)	
	Light railway	
	Tramway	
	Railway (or other transport system) operating under 40kph	
	Trade union	
	Passenger groups	
	Other	
If <i>Other</i> , please specify:		

7 Implementation of ROGS

SAFETY MANAGEMENT SYSTEM (SMS)		
7.1 Do you have a safety management system which is ROGS compliant?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
If <i>No</i> or <i>Not sure</i> please go straight to Question 7.6		
7.2 Please estimate the costs your organisation incurs as a result of maintaining an SMS under ROGS, per year . Please provide details on at least one of the following costs:	Estimated number of hours spent	
	Estimated number of days spent	
	Estimated actual cost in £'s spent	
7.3 Compared to your costs to maintain a safety case, please indicate whether SMS maintenance costs under ROGS are:	Similar	<input type="checkbox"/>
	More expensive	<input type="checkbox"/>
	Less expensive	<input type="checkbox"/>

7.4	What are the main challenges in maintaining an SMS under ROGS? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
		Time and / or resource pressures	<input type="checkbox"/>
		Organisational / cultural barriers	<input type="checkbox"/>
		Communicating the SMS to the organisation	<input type="checkbox"/>
		No challenges encountered	<input type="checkbox"/>
		Other	<input type="checkbox"/>
		If <i>Other</i> , please specify:	
7.5	To what extent do you think SMS under ROGS has affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
		Hindered safety	<input type="checkbox"/>
		No change	<input type="checkbox"/>
		Not sure	<input type="checkbox"/>
		Other	<input type="checkbox"/>
		If <i>Other</i> , please specify:	

SAFETY VERIFICATION (SV)			
7.6	Do you have processes in place for ensuring safe introduction of new / altered infrastructure or rolling stock to your operation? (Select all boxes that apply)	Use “notified body” under the Railways (Interoperability) Regulations 2006 (RIR)	<input type="checkbox"/>
		SMS change management process	<input type="checkbox"/>
		Safety verification under ROGS	<input type="checkbox"/>
		Not applicable	<input type="checkbox"/>
If only ‘Use “notified body” under RIR’ and / or ‘Not applicable’ apply to your organisation please go straight to Question 7.10			
7.7	Please estimate the costs your organisation incurs as a result of undertaking SV under ROGS, per year . Please provide details on at least one of the following costs:	Estimated number of hours spent	
		Estimated number of days spent	
		Estimated actual cost in £’s spent	
7.8	What are the main challenges in meeting the requirements of SV? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
		Time and / or resource pressures	<input type="checkbox"/>
		Organisational / cultural barriers	<input type="checkbox"/>
		Knowing when to apply safety verification	<input type="checkbox"/>
		Identifying / appointing an ICP	<input type="checkbox"/>
		No challenges encountered	<input type="checkbox"/>
		Other	<input type="checkbox"/>
If <i>Other</i> , please specify:			

7.9 To what extent do you think SV under ROGS has affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>
	If <i>Other</i> , please specify:	

SAFETY CERTIFICATION			
7.10 Do you have a safety certificate under ROGS? (Select one box)	Yes	<input type="checkbox"/>	
	No	<input type="checkbox"/>	
	Not sure	<input type="checkbox"/>	
If <i>No</i> or <i>Not sure</i> please go straight to Question 7.18			
7.11 Please tick ALL of the stages in the safety certification assessment process you have completed. (Select ALL boxes that apply)	Preparing the application	<input type="checkbox"/>	
	Submission to ORR and affected parties	<input type="checkbox"/>	
	Main ORR assessment	<input type="checkbox"/>	
	Meeting with ORR to discuss assessment findings	<input type="checkbox"/>	
	Resolving outstanding issues	<input type="checkbox"/>	
	ORR final decision and sign-off	<input type="checkbox"/>	
7.12 Please estimate the costs your organisation incurred as a result of your initial application for a safety certificate under ROGS or an amendment to it, per year . Please provide details on at least one of the following costs:		Initial application	Amend
	Estimated number of hours spent		
	Estimated number of days spent		
	Estimated actual cost in £'s spent		
7.13 What are the main challenges? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>	
	Time and / or resource pressures	<input type="checkbox"/>	
	Organisational / cultural barriers	<input type="checkbox"/>	
	Consulting affected parties	<input type="checkbox"/>	
	Liaison with ORR	<input type="checkbox"/>	
	Employee involvement	<input type="checkbox"/>	
	No challenges encountered	<input type="checkbox"/>	
	Other	<input type="checkbox"/>	
If <i>Other</i> , please specify:			
7.14 Compared to Railway Safety Case applications, the time spent on applying for a safety certificate was: (Select one box)	More	<input type="checkbox"/>	
	Less	<input type="checkbox"/>	
	About the same	<input type="checkbox"/>	

7.15 Compared to Railway Safety Case applications, the cost of applying for a safety certificate was: (Select one box)	More	<input type="checkbox"/>
	Less	<input type="checkbox"/>
	About the same	<input type="checkbox"/>
7.16 Do you think that improvements could be made to the application process?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	No opinion	<input type="checkbox"/>
If Yes, please specify:		
7.17 To what extent do you think safety certification under ROGS has affected safety? (Select one box) If <i>Other</i> , please specify:	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>

SAFETY AUTHORISATION			
7.18 Do you have safety authorisation under ROGS? (Select one box)	Yes	<input type="checkbox"/>	
	No	<input type="checkbox"/>	
	Not sure	<input type="checkbox"/>	
If <i>No</i> or <i>Not sure</i> please go straight to Question 7.26			
7.19 Please tick ALL of the stages in the safety authorisation assessment process you have completed. (Select ALL boxes that apply)	Preparing the application	<input type="checkbox"/>	
	Submission to ORR and affected parties	<input type="checkbox"/>	
	Main ORR assessment	<input type="checkbox"/>	
	Meeting with ORR to discuss assessment findings	<input type="checkbox"/>	
	Resolving outstanding issues	<input type="checkbox"/>	
	ORR final decision and sign-off	<input type="checkbox"/>	
7.20 Please estimate the costs your organisation incurred as a result of your initial application for a safety authorisation under ROGS or an amendment to it, per year . Please provide details on at least one of the following costs:		Initial application	Amend
	Estimated number of hours spent		
	Estimated number of days spent		
	Estimated actual cost in £'s spent		

7.21	What are the main challenges? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
		Time and / or resource pressures	<input type="checkbox"/>
		Organisational / cultural barriers	<input type="checkbox"/>
		Consulting affected parties	<input type="checkbox"/>
		Liaison with ORR	<input type="checkbox"/>
		Employee involvement	<input type="checkbox"/>
		No challenges encountered	<input type="checkbox"/>
		Other	<input type="checkbox"/>
If <i>Other</i> , please specify:			
7.22	Compared to Railway Safety Case applications, the time spent on applying for a safety authorisation was: (Select one box)	More	<input type="checkbox"/>
		Less	<input type="checkbox"/>
		About the same	<input type="checkbox"/>
7.23	Compared to Railway Safety Case applications, the cost of applying for a safety authorisation was: (Select one box)	More	<input type="checkbox"/>
		Less	<input type="checkbox"/>
		About the same	<input type="checkbox"/>
7.24	Do you think that improvements could be made to the application process?	Yes	<input type="checkbox"/>
		No	<input type="checkbox"/>
		No opinion	<input type="checkbox"/>
If Yes, please specify:			
7.25	To what extent do you think safety authorisation under ROGS has affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
		Hindered safety	<input type="checkbox"/>
		No change	<input type="checkbox"/>
		Not sure	<input type="checkbox"/>
		Other	<input type="checkbox"/>
If <i>Other</i> , please specify:			

RISK ASSESSMENT			
7.26	What were the main challenges you faced in adapting your arrangements to meet the requirements of Regulation 19? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
		Time and / or resource pressures	<input type="checkbox"/>
		Organisational / cultural barriers	<input type="checkbox"/>
		Involving employees and their representatives	<input type="checkbox"/>
		Applying targets / standards	<input type="checkbox"/>
		No challenges encountered	<input type="checkbox"/>
		Other	<input type="checkbox"/>
If <i>Other</i> , please specify:			

7.27 How do you feel about the changes brought about to risk assessment by ROGS? (Select one box)	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		

ANNUAL SAFETY REPORT		
7.28 Are you required to compile and submit an annual safety report under ROGS? (Select one box)	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
If <i>No</i> or <i>Not sure</i> please go straight to Question 7.32		
7.29 Please estimate the costs your organisation incurs as a result of submitting an annual safety report, per year . Please provide details on at least one of the following costs:	Estimated number of hours spent	
	Estimated number of days spent	
	Estimated actual cost in £'s spent	
7.30 What are the main challenges in preparing and submitting a report? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
	Time and / or resource pressures	<input type="checkbox"/>
	Gathering and compiling the information	<input type="checkbox"/>
	Meeting the deadline	<input type="checkbox"/>
	No challenges encountered	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		
7.31 To what extent do you think annual safety reports under ROGS have affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		

DUTY OF CO-OPERATION		
7.32 What are the main challenges in meeting the duty? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
	Time and / or resource pressures	<input type="checkbox"/>
	Organisational / cultural barriers	<input type="checkbox"/>
	Other duty holders not co-operating	<input type="checkbox"/>
	No challenges encountered	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		
7.33 To what extent do you think the duty of co-operation has affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>
	If <i>Other</i> , please specify:	

SAFETY CRITICAL WORK		
7.34 What are the main challenges in meeting the duty? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
	Time and / or resource pressures	<input type="checkbox"/>
	Organisational / cultural barriers	<input type="checkbox"/>
	Training staff and managers	<input type="checkbox"/>
	No challenges encountered	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		
7.35 To what extent do you think duties regarding safety critical work have affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>
	If <i>Other</i> , please specify:	

8 Additional comments

8.1 Are there any additional comments that you would like to make?

Please save the completed questionnaire to your desktop and then email it as an attachment to mandydow@bomelconsult.com, marking the email subject as “ROGS survey” by 5pm on Friday 27th February 2009.

Thank you, again, for your help and assistance in this important study

FINAL SURVEY

THE RAILWAYS AND OTHER GUIDED TRANSPORT SYSTEMS (SAFETY) REGULATIONS 2006 (ROGS)

ABOUT THIS SURVEY

- Noble Denton (formerly Noble Denton BOMEL) is an independent research and consultancy organisation. We are carrying out research on behalf of the Office of Rail Regulation (ORR) to monitor and evaluate the impact of ROGS.
- This research involves a series of activities over three years designed to gather and analyse safety performance information in order to assess whether ROGS have met their original aims and objectives. This is the final survey we will issue during the three year period.
- **Even if you have not taken part in previous years, we are still keen to gather your views.**
- We appreciate you are busy and we have therefore tried to keep the survey as short and interesting as possible.
- We value your views and appreciate the time taken to complete this survey.

WHO SHOULD COMPLETE THIS SURVEY

- We are seeking views from a representative sample of organisations within the rail industry regarding ROGS.
- This questionnaire is ideally intended for those with a responsibility for safety (e.g. Safety Managers, Supervisors, Safety Representatives etc.).
- The survey covers the following areas:

PART 1 – FOR EVERYONE TO COMPLETE

1. Organisational details
2. Awareness and understanding of ROGS
3. Industry safety culture
4. General feedback on ROGS and ORR
5. Additional comments

PART 2 – FOR DUTY HOLDERS ONLY TO COMPLETE

6. Specific duty holder details
7. Implementation of ROGS
8. Additional comments

CONFIDENTIALITY

All responses will be treated in the strictest confidence. Your name will not be passed to the ORR or made available to any other parties without your consent. Responses are being obtained from a range of organisations. The results of this survey will be aggregated and presented so that individual respondents will not be identifiable. Likewise, our report will not name individual contributors.

COMPLETING THE SURVEY

Please respond in terms of your own organisation. If your organisation is part of a larger group but essentially works independently, then please answer for your organisation about which you have direct knowledge, and not the group. Please provide as many answers as you can but leave blank those questions you cannot answer. The survey should take no longer than 30 minutes to complete.

CONTACT DETAILS

Noble Denton: Mandy Dow, mandy.dow@nobledenton.com, 01753 216800
Thames Central, 90 Hatfield Road, Slough, Berkshire, SL1 1QE

Thank you for your assistance with this important study.

PART 1 – FOR EVERYONE TO COMPLETE

1 Organisational details

This section (1 – Organisational details) will remain confidential to ND BOMEL only

1.1 Your name:

If you have participated in previous surveys and your details have not changed you do not need to complete questions 1.2 to 1.6 again

1.2 Job title:

1.3 Organisation name:

1.4 Telephone No:

1.5 Email:

1.6 Website:

2 Awareness and understanding of ROGS

2.1 At this point in time, do you still use help to assist you in understanding and implementing ROGS? (If <i>No</i> go straight to question 3.1)	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
2.2 If Yes, please specify what help you use. (Select all boxes that apply)	ORR published guidance	<input type="checkbox"/>
	RSSB published guidance	<input type="checkbox"/>
	Internal organisational guidance	<input type="checkbox"/>
	External consultant	<input type="checkbox"/>
	Internal consultant	<input type="checkbox"/>
	Direct contact with ORR	<input type="checkbox"/>
	Direct contact with RSSB	<input type="checkbox"/>
	Trade union	<input type="checkbox"/>
	Industry networking	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		

3 Industry safety culture

PLEASE PROVIDE YOUR VIEWS ON THE FOLLOWING SAFETY STATEMENTS BY TICKING THE BOX WHICH MOST ACCURATELY REFLECTS YOUR OPINION						
	Strongly agree	Agree	Neither	Disagree	Strongly disagree	No opinion
3.1 There are good communications here about health and safety issues	<input type="checkbox"/>					
3.2 The company really cares about the health and safety of the people who work here	<input type="checkbox"/>					
3.3 My immediate boss often talks to me about health and safety	<input type="checkbox"/>					
3.4 Supervisors are good at detecting unsafe behaviour	<input type="checkbox"/>					
3.5 There is nothing I can do to further improve health and safety here	<input type="checkbox"/>					
3.6 I trust my workmates with my health and safety	<input type="checkbox"/>					
3.7 I am clear about what my responsibilities are for health and safety	<input type="checkbox"/>					
3.8 People here do not remember much of the health and safety training which applies to their job	<input type="checkbox"/>					
3.9 People here always work safely even when they are not being supervised	<input type="checkbox"/>					
3.10 People here think health and safety is not their problem – it's up to management and others	<input type="checkbox"/>					
3.11 Some people here have a poor understanding of the risks associated with their work	<input type="checkbox"/>					
3.12 There are always enough people available to get the job done according to the health and safety procedures/instructions/rules	<input type="checkbox"/>					
3.13 Near misses are always reported	<input type="checkbox"/>					
3.14 Do management involve staff at all levels in safety related decision making?	Yes				<input type="checkbox"/>	
	No				<input type="checkbox"/>	
	Not sure				<input type="checkbox"/>	
Please explain why:						

3.15 Is there a message conveyed to all staff that safety is a key priority?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
Please explain why:		
3.16 If Yes to Question 3.15, who is responsible for communicating the safety priority message to all staff? (Select one box)	Senior management	<input type="checkbox"/>
	Middle management	<input type="checkbox"/>
	Safety representatives	<input type="checkbox"/>
	Site work supervisors	<input type="checkbox"/>
	A mixture of the above	<input type="checkbox"/>
	No one specifically has that responsibility	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		
3.17 If Yes to Question 3.15, how is the message communicated to staff that safety is a key priority? (e.g. verbally as part of normal working operations; in writing through newsletters; verbally in company and project meetings etc.)		
3.18 Are there any circumstances where staff are placed under pressure to meet operational performance objectives?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
Please explain why:		
3.19 If Yes to Question 3.18, do you think this pressure affects safety?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
Please explain why:		

4 General feedback on ROGS and ORR

4.1 Has ROGS changed the way in which safety has been managed in your organisation? Please explain why:	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
4.2 If changes have been required, how have they impacted on your business operations? (Select one box) Please explain why:	Positive impact	<input type="checkbox"/>
	Neutral impact	<input type="checkbox"/>
	Negative impact	<input type="checkbox"/>
4.3 Has ROGS made any difference to safety related decision making? Please explain why:	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
4.4 Please provide your views on the following statement by ticking the box which most accurately reflects your opinion: <i>“From experience, I believe that standards of safety are the same under ROGS”</i>	Strongly agree Agree Neither Disagree Strongly disagree No opinion	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4.5 Could more be done to reduce the administrative burden of the regulations? Please explain why:	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	No opinion	<input type="checkbox"/>
4.6 Did you request and / or receive help from ORR regarding ROGS? (Select one box)	Requested and received help	<input type="checkbox"/>
	Requested help, but did not receive help	<input type="checkbox"/>
	Did not request any help	<input type="checkbox"/>
4.7 If you requested help, what did you require help with?		
4.8 If you received help, how would you describe the help you received from ORR? (Select one box)	Excellent	<input type="checkbox"/>
	Good	<input type="checkbox"/>
	Average	<input type="checkbox"/>
	Poor	<input type="checkbox"/>
	Very poor	<input type="checkbox"/>
	No opinion	<input type="checkbox"/>

4.9 Approximately how many times have you received a visit from an ORR inspector (HMRI) in the first six months of 2009? (Select one box)	No visits in 2009 yet	<input type="checkbox"/>
	Between 1 and 2	<input type="checkbox"/>
	Between 3 and 5	<input type="checkbox"/>
	Between 6 and 10	<input type="checkbox"/>
	More than 10	<input type="checkbox"/>
	If preferred, please estimate the number of times:	
4.10 If you have received an inspector visit in 2009, typically how much time did the ORR inspector spend with your organisation (on one visit)? (Select one box)	Less than 1 hour	<input type="checkbox"/>
	1 to 2 hours	<input type="checkbox"/>
	3 to 5 hours	<input type="checkbox"/>
	6 to 8 hours	<input type="checkbox"/>
	More than 8 hours	<input type="checkbox"/>
	If preferred, please estimate the time in hours:	
4.11 How does this compare with the time spent on a visit before ROGS came into force?	More time spent since ROGS	<input type="checkbox"/>
	About the same	<input type="checkbox"/>
	Less time spent since ROGS	<input type="checkbox"/>
4.12 What else could ORR do to help you with ROGS?		

5 Additional comments

5.1 Are there any additional comments that you would like to make?
--

PART 2 – FOR DUTY HOLDERS ONLY TO COMPLETE

6 Specific duty holder details

This section will be used to put cost data into context		
6.1 What best describes the role of your organisation?: (Select one box only or specify below)	Infrastructure manager	<input type="checkbox"/>
	Train operating company (TOC)	<input type="checkbox"/>
	Freight operating company (FOC)	<input type="checkbox"/>
	On Track Machine operation (OTM)	<input type="checkbox"/>
	Possession only operation	<input type="checkbox"/>
	Maintainer of vehicles or infrastructure	<input type="checkbox"/>
	Rolling stock manufacturer or company (incl. Leasing companies)	<input type="checkbox"/>
	Metro system (e.g. London Underground, Tyne & Wear Metro)	<input type="checkbox"/>
	Light railway	<input type="checkbox"/>
	Tramway	<input type="checkbox"/>
	Railway (or other transport system) operating under 40kph	<input type="checkbox"/>
	Trade union	<input type="checkbox"/>
	Passenger groups	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		

7 Implementation of ROGS

SAFETY MANAGEMENT SYSTEM (SMS)		
7.1 Do you have a safety management system which is ROGS compliant?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
If <i>No</i> or <i>Not sure</i> please go straight to Question 7.6		
7.2 Please estimate the costs your organisation incurs as a result of maintaining an SMS under ROGS, per year . Please provide details on at least one of the following costs:	Estimated number of hours spent	
	Estimated number of days spent	
	Estimated actual cost in £'s spent	
7.3 Compared to your costs to maintain a safety case, please indicate whether SMS maintenance costs under ROGS are:	Similar	<input type="checkbox"/>
	More expensive	<input type="checkbox"/>
	Less expensive	<input type="checkbox"/>

7.4	What are the main challenges in maintaining an SMS under ROGS? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
		Time and / or resource pressures	<input type="checkbox"/>
		Organisational / cultural barriers	<input type="checkbox"/>
		Communicating the SMS to the organisation	<input type="checkbox"/>
		No challenges encountered	<input type="checkbox"/>
		Other	<input type="checkbox"/>
		If <i>Other</i> , please specify:	
7.5	To what extent do you think SMS under ROGS has affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
		Hindered safety	<input type="checkbox"/>
		No change	<input type="checkbox"/>
		Not sure	<input type="checkbox"/>
		Other	<input type="checkbox"/>
		If <i>Other</i> , please specify:	

SAFETY VERIFICATION (SV)			
7.6	Do you have processes in place for ensuring safe introduction of new / altered infrastructure or rolling stock to your operation? (Select all boxes that apply)	Use “notified body” under the Railways (Interoperability) Regulations 2006 (RIR)	<input type="checkbox"/>
		SMS change management process	<input type="checkbox"/>
		Safety verification under ROGS	<input type="checkbox"/>
		Not applicable	<input type="checkbox"/>
If only ‘Use “notified body” under RIR’ and / or ‘Not applicable’ apply to your organisation please go straight to Question 7.10			
7.7	Please estimate the costs your organisation incurs as a result of undertaking SV under ROGS, per year . Please provide details on at least one of the following costs:	Estimated number of hours spent	
		Estimated number of days spent	
		Estimated actual cost in £’s spent	
7.8	What are the main challenges in meeting the requirements of SV? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
		Time and / or resource pressures	<input type="checkbox"/>
		Organisational / cultural barriers	<input type="checkbox"/>
		Knowing when to apply safety verification	<input type="checkbox"/>
		Identifying / appointing an ICP	<input type="checkbox"/>
		No challenges encountered	<input type="checkbox"/>
		Other	<input type="checkbox"/>
If <i>Other</i> , please specify:			

7.9 To what extent do you think SV under ROGS has affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>
	If <i>Other</i> , please specify:	

SAFETY CERTIFICATION			
7.10 Do you have a safety certificate under ROGS? (Select one box)	Yes	<input type="checkbox"/>	
	No	<input type="checkbox"/>	
	Not sure	<input type="checkbox"/>	
If <i>No</i> or <i>Not sure</i> please go straight to Question 7.18			
7.11 Please tick ALL of the stages in the safety certification assessment process you have completed. (Select ALL boxes that apply)	Preparing the application	<input type="checkbox"/>	
	Submission to ORR and affected parties	<input type="checkbox"/>	
	Main ORR assessment	<input type="checkbox"/>	
	Meeting with ORR to discuss assessment findings	<input type="checkbox"/>	
	Resolving outstanding issues	<input type="checkbox"/>	
	ORR final decision and sign-off	<input type="checkbox"/>	
7.12 Please estimate the costs your organisation incurred as a result of your initial application for a safety certificate under ROGS or an amendment to it, per year . Please provide details on at least one of the following costs:		Initial application	Amend
	Estimated number of hours spent		
	Estimated number of days spent		
	Estimated actual cost in £'s spent		
7.13 What are the main challenges? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>	
	Time and / or resource pressures	<input type="checkbox"/>	
	Organisational / cultural barriers	<input type="checkbox"/>	
	Consulting affected parties	<input type="checkbox"/>	
	Liaison with ORR	<input type="checkbox"/>	
	Employee involvement	<input type="checkbox"/>	
	No challenges encountered	<input type="checkbox"/>	
	Other	<input type="checkbox"/>	
If <i>Other</i> , please specify:			
7.14 Compared to Railway Safety Case applications, the time spent on applying for a safety certificate was: (Select one box)	More	<input type="checkbox"/>	
	Less	<input type="checkbox"/>	
	About the same	<input type="checkbox"/>	

7.15 Compared to Railway Safety Case applications, the cost of applying for a safety certificate was: (Select one box)	More	<input type="checkbox"/>
	Less	<input type="checkbox"/>
	About the same	<input type="checkbox"/>
7.16 Do you think that improvements could be made to the application process?	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	No opinion	<input type="checkbox"/>
If Yes, please specify:		
7.17 To what extent do you think safety certification under ROGS has affected safety? (Select one box) If <i>Other</i> , please specify:	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>

SAFETY AUTHORISATION			
7.18 Do you have safety authorisation under ROGS? (Select one box)	Yes	<input type="checkbox"/>	
	No	<input type="checkbox"/>	
	Not sure	<input type="checkbox"/>	
If <i>No</i> or <i>Not sure</i> please go straight to Question 7.26			
7.19 Please tick ALL of the stages in the safety authorisation assessment process you have completed. (Select ALL boxes that apply)	Preparing the application	<input type="checkbox"/>	
	Submission to ORR and affected parties	<input type="checkbox"/>	
	Main ORR assessment	<input type="checkbox"/>	
	Meeting with ORR to discuss assessment findings	<input type="checkbox"/>	
	Resolving outstanding issues	<input type="checkbox"/>	
	ORR final decision and sign-off	<input type="checkbox"/>	
7.20 Please estimate the costs your organisation incurred as a result of your initial application for a safety authorisation under ROGS or an amendment to it, per year . Please provide details on at least one of the following costs:		Initial application	Amend
	Estimated number of hours spent		
	Estimated number of days spent		
	Estimated actual cost in £'s spent		

7.21	What are the main challenges? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
		Time and / or resource pressures	<input type="checkbox"/>
		Organisational / cultural barriers	<input type="checkbox"/>
		Consulting affected parties	<input type="checkbox"/>
		Liaison with ORR	<input type="checkbox"/>
		Employee involvement	<input type="checkbox"/>
		No challenges encountered	<input type="checkbox"/>
		Other	<input type="checkbox"/>
If <i>Other</i> , please specify:			
7.22	Compared to Railway Safety Case applications, the time spent on applying for a safety authorisation was: (Select one box)	More	<input type="checkbox"/>
		Less	<input type="checkbox"/>
		About the same	<input type="checkbox"/>
7.23	Compared to Railway Safety Case applications, the cost of applying for a safety authorisation was: (Select one box)	More	<input type="checkbox"/>
		Less	<input type="checkbox"/>
		About the same	<input type="checkbox"/>
7.24	Do you think that improvements could be made to the application process?	Yes	<input type="checkbox"/>
		No	<input type="checkbox"/>
		No opinion	<input type="checkbox"/>
If Yes, please specify:			
7.25	To what extent do you think safety authorisation under ROGS has affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
		Hindered safety	<input type="checkbox"/>
		No change	<input type="checkbox"/>
		Not sure	<input type="checkbox"/>
		Other	<input type="checkbox"/>
If <i>Other</i> , please specify:			

RISK ASSESSMENT			
7.26	What were the main challenges you faced in adapting your arrangements to meet the requirements of Regulation 19? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
		Time and / or resource pressures	<input type="checkbox"/>
		Organisational / cultural barriers	<input type="checkbox"/>
		Involving employees and their representatives	<input type="checkbox"/>
		Applying targets / standards	<input type="checkbox"/>
		No challenges encountered	<input type="checkbox"/>
		Other	<input type="checkbox"/>
If <i>Other</i> , please specify:			

7.27 How do you feel about the changes brought about to risk assessment by ROGS? (Select one box)	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		

ANNUAL SAFETY REPORT		
7.28 Are you required to compile and submit an annual safety report under ROGS? (Select one box)	Yes	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
If <i>No</i> or <i>Not sure</i> please go straight to Question 7.32		
7.29 Please estimate the costs your organisation incurs as a result of submitting an annual safety report, per year . Please provide details on at least one of the following costs:	Estimated number of hours spent	
	Estimated number of days spent	
	Estimated actual cost in £'s spent	
7.30 What are the main challenges in preparing and submitting a report? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
	Time and / or resource pressures	<input type="checkbox"/>
	Gathering and compiling the information	<input type="checkbox"/>
	Meeting the deadline	<input type="checkbox"/>
	No challenges encountered	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		
7.31 To what extent do you think annual safety reports under ROGS have affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		

DUTY OF CO-OPERATION		
7.32 What are the main challenges in meeting the duty? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
	Time and / or resource pressures	<input type="checkbox"/>
	Organisational / cultural barriers	<input type="checkbox"/>
	Other duty holders not co-operating	<input type="checkbox"/>
	No challenges encountered	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		
7.33 To what extent do you think the duty of co-operation has affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>
	If <i>Other</i> , please specify:	

SAFETY CRITICAL WORK		
7.34 What are the main challenges in meeting the duty? (Select all boxes that apply)	Understanding the requirements	<input type="checkbox"/>
	Time and / or resource pressures	<input type="checkbox"/>
	Organisational / cultural barriers	<input type="checkbox"/>
	Training staff and managers	<input type="checkbox"/>
	No challenges encountered	<input type="checkbox"/>
	Other	<input type="checkbox"/>
If <i>Other</i> , please specify:		
7.35 To what extent do you think duties regarding safety critical work have affected safety? (Select one box)	Improved safety	<input type="checkbox"/>
	Hindered safety	<input type="checkbox"/>
	No change	<input type="checkbox"/>
	Not sure	<input type="checkbox"/>
	Other	<input type="checkbox"/>
	If <i>Other</i> , please specify:	

8 Additional comments

8.1 Are there any additional comments that you would like to make?

Please save the completed questionnaire to your desktop and then email it as an attachment to mandy.dow@nobledenton.com, marking the email subject as “ROGS survey” by 5pm on Friday 25th September 2009.

Thank you, again, for your help and assistance in this important study

**APPENDIX B - COPY OF THE BRIEFING NOTE FROM THE FINAL INFLUENCE
NETWORK WORKSHOP**

Safety in the rail industry:

Influence Network (IN) workshop

Monday 7th December 2009, 0930hrs (for 1000hrs start) till 1600hrs

Office of Rail Regulation, One Kemble Street, London, WC2B 4AN

Background and workshop aim

This workshop is being held as part of a project for the Office of Rail Regulation (ORR) to monitor and evaluate the impact of the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS). The project has involved a series of activities over a three year period designed to gather and analyse information in order to assess whether ROGS have met their original aims and objectives.

This workshop is the second of two workshops. This first IN workshop (held in September 2007) gathered a 'baseline' measure of the perceived influences on safety in the rail industry. The findings from this second workshop will be compared against the baseline measure to assess the extent of any change resulting from the implementation of ROGS.

Rail industry IN model

The IN allows a structured discussion about a range of possible factors that may or may not be influencing safety in the rail industry. Figure 1 shows the rail industry IN model that will be used in the second workshop.

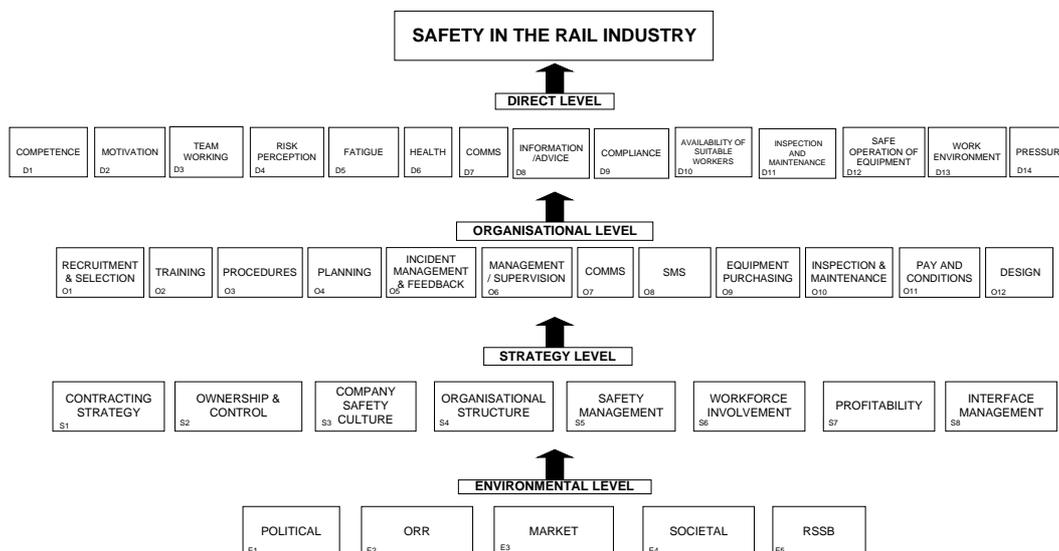


Figure 1 Rail Industry IN Model

The factors shown in the model in Figure 1 will be discussed in the second workshop to assess the quality of each factor in the rail industry and identify the factors that currently

have the most importance in terms of maintaining safety. The findings will be compared with the findings from the first workshop to identify any differences.

Workshop agenda

The agenda for the day is shown below in Table 1.

Table 1 Agenda for workshop

Time	Topic
0930	Arrive and coffee
1000	Workshop start and introduction to the day
1015	Round table introductions
1020	Step 1 – Burning issues
1040	Step 2 – Rate the quality and weight the importance of all Direct level factors
1200	Break
1205	Step 3 – Rate the quality and weight the importance of all Organisational level factors
1300	Lunch
1330	Step 3 – Contd.
1350	Step 4 – Rate the quality and weight the importance of all Strategy level factors
1445	Break
1450	Step 5 – Rate the quality and weight the importance of all Environmental level factors
1600	Finish

Preparation for the workshop

There is little preparation required before attending the workshop since the approach will be explained fully on the day. However, **it would be of benefit if you could take a little time to look at the Influence Network model in Figure 1 and think about which factors you believe to be the most important influences on safety in rail and why.** Definitions for the factors are provided in Appendix A. If you would like any further information, please contact Natasha Perry on 0207 812 8847 or natasha.perry@nobledenton.com.

APPENDIX A

Influence Network factor definitions

The following section outlines the generic definitions given to each of the factors at the Direct, Organisational, Strategy and Environmental levels of the Influence Network.

Direct Level Influences

This refers to the immediate factors that may have a direct influence on safety.

D1 - Competence
The skills, knowledge and abilities required to perform particular tasks safely.
D2 - Motivation
Workers incentive to work towards the business, employer, personal and common goals.
D3 – Team working
The extent to which individuals in teams work as cohesive units and look out for each other's safety interests
D4 – Risk Perception
The extent to which workers are aware of the hazards and risks presented in the workplace.
D5 - Fatigue
The degree to which performance is degraded through sleep deprivation, or excessive / insufficient mental or physical activity.
D6 - Health
The physical well-being of workers.
D7 – Communications
The extent to which the frequency and clarity of communications are appropriate to enable tasks to be performed safely.
D8 - Information / Advice
The extent to which people can access information that is accurate, timely, relevant and usable.
D9 - Compliance
The extent to which people comply with instructions, procedures, rules, or regulations.
D10 - Availability of Suitable Workers
The relationship of supply to demand for suitable human resources. Relates to the appropriate mix and number of personnel in terms of experience, knowledge and qualifications.
D11 - Inspection and Maintenance
The extent and frequency with which equipment is inspected and maintained.

D12 – Safe Operation of Equipment
The extent to which systems and equipment are available, conform to best practice and meet the usability needs of the user.
D13 - Work Environment
The level of noise, temperature, congestion, light and vibration existing in the place of work.
D14 - Pressure
The level of pressure created by work and the extent to which this leads to negative consequences for individuals in terms of health and/or performance e.g. unacceptable levels of stress.

Organisational Level Influences

This refers to the organisational factors that may influence safety at the Direct level.

O1 - Recruitment and Selection
The system that facilitates the employment of personnel that are suited to the job demands.
O2 - Training
The system that ensures the skills of the workforce are matched to their job demands.
O3 - Procedures
The system that ensures that the method of conducting tasks and/or operations is explicit and practical.
O4 - Planning
The system that designs and structures the work activities of personnel.
O5 - Incident Management + Feedback
The system of incident management that ensures high quality information about incidents and near misses is collected, analysed and acted on appropriately.
O6 - Management / Supervision
The system that ensures human resources are adequately managed/supervised.
O7 - Communications
The system that ensures that appropriate information is communicated clearly to its intended recipients from/to management and workers.
O8 – Safety Management Systems (SMS)
The system in place for managing safety risks.
O9 - Equipment Purchasing
The system that ensures the range of hardware (infrastructure, rolling stock, tools, machinery, PPE etc) available is appropriate for the job demands and meets user requirements.

O10 - Inspection + Maintenance
The system that ensures the range of hardware is inspected, and maintained in good working order.
O11 - Pay + Conditions
The extent to which earnings, working conditions and other employment rewards match the demands of the job.
O12 - Design
The process of engineering and ergonomic design of the workplace activities, facilities, and hardware to ensure fitness-for-purpose, safety and operability.

Strategy Level Influences

This level comprises the factors that shape the organisational processes.

S1 - Contracting Strategy
The extent to which safety is considered in contractual arrangements and the implications.
S2 - Ownership + Control
The extent to which ownership and control is taken to ensure sustained safety performance.
S3 - Company Safety Culture
Product of individual and group values, attitudes, competencies and patterns of behaviour in relation to safety.
S4 - Organisational Structure
The extent to which there is appropriate definition of roles and responsibilities within and between organisations.
S5 - Safety Management
The management system which encompasses safety policies, the definition of roles and responsibilities for safety, the implementation of measures to promote safety and the evaluation of safety performance.
S6 – Workforce Involvement
The extent to which there is a harmonious relationship between managers/duty holders and the workforce. Also the extent to which there is the opportunity for workers to affiliate with associations active in defending and promoting their welfare, and the extent to which there is a system in place for negotiation of pay and conditions.
S7 - Profitability
The extent to which the business is subject to competition over market share and constrained as to the price that can be charged for the services offered.
S8 - Interface Management
The extent to which interacting operating organisations and parent companies liaise on safety issues and railway associations assist in interface management.

Environmental Level Influences

This refers to the regulatory and wider external influences that impact on the rail industry as a whole.

E1 - Political Influence
The profile of, and practices within, Government, related to the rail industry.
E2 – Office of Rail Regulation (ORR)
The economic and safety regulator.
E3 - Market Influence
The commercial and economic context affecting the rail industry.
E4 - Societal Influence
Aspects of the community and society at large, which bear upon the public perception of the rail industry.
E5 – Rail Safety and Standards Board (RSSB)
The industry controlled body which both manages standards and monitors safety.