

ORR protects the interests of rail and road users, improving the safety, value and performance of railways and roads today and in the future



Health and safety priorities 2019/20 and outcomes from the annual Risk Assessment and Risk Ranking (RARR) exercise

Ian Prosser

Top priorities for 2019-20 – internal focus

- Developing our staff and ensuring that we have a succession plan. We have a number of staff who are likely to leave us over the next year and currently 20 staff who are in training posts (with 3 more to join)
- Organisational effectiveness and capability – continuously improve core process of investigation and enforcement, QMS and data for planning
- Embedding team approach to supervising heritage and tram sector
- Introduction of new technology and trains – creating a new rolling stock post to aid this, improving understanding of automation and human factors
- Supervision of Sandilands RAIB recommendations; moving from enablers to operational delivery
- Brexit and bilateral engagement – legislative change to our criteria and procedures - developing new relationships

Top priorities for 2019-20 (following RARR and themes in 2017/18 annual health and safety report)

- Poor performance creates pressure on the system – pressure on staff, priority of managing safety, degraded modes and recovery, PTI, station overcrowding
- Network Rail: Operating Irregularities; Vegetation Management; SPAD Management; Trespass; Workforce safety.
- Safe introduction into use of the Crossrail Central Operating Section (CCOS)
- The challenges of CP6 – increased route devolution and route MD ownership and route / center accountabilities; focus on punctuality, performance and delivery of volumes on time and to cost – create the conditions where (unconscious) prioritisation of other factors can allow safety standards to slip...

RARR review 2018

- Completed in October 2018
- Deputy Directors and Heads of Sections within ORR's Railway Safety Directorate carried out the review
- The risk profile was broadly similar to the outcomes from the risk profile review carried out in October 2017 for 2018/19 business planning
- Bespoke RARR developed to reflect the various risk profiles in different railway sectors
 - Mainline (includes charter train operators) – concluded, see next slides
 - TfL (LU done and to be signed off, rest in progress)
 - Tramways (done and factored into new risk chapter)
 - Heritage (to be initiated in 2019)

RARR mainline review 2018

Key considerations

- Regulator's ability to influence the risk; how much influence we have to drive improvement
- Anticipation of new, emerging or changing risks
- High Impact Low Frequency (HILF) events; Consideration of issues such as vulnerability of control measures leading to a catastrophic event
- Public and external perception of risk

RARR mainline review 2018

1 - Top risks, based on ORR's ability to influence improvement

- PTI & station crowding
- Medical fitness for work
- Working on or near the line
- Maintaining engineering assets
- Change management

RARR mainline review 2018

2 - Top High Impact Low Frequencies / catastrophic risk

- Charter train competency
- Medical fitness for work
- Maintaining engineering assets
- Operation of level crossings
- Skill shortages in key roles

RARR mainline review 2018

3 - Top risks based on the vulnerability of controls in place to prevent an event

- PTI & station crowding
- Charter train competency
- Contact with electricity
- Medical fitness for work
- Maintaining engineering assets
- Workforce competency

RARR mainline review 2018

4 - Top risk, based on ORR's opinion of public and external perception of risk

- PTI & station crowding
- Wheel rail interface
- Trespass & Vandalism
- Suicide
- Over-speeding

2-5 year forward look

- The pressure on recruiting, training and retaining competent staff will remain
- Rail Review implementation (if it involves significant restructuring to the current industry)
- Improving rail performance
- Staged implementation of our organisational capability work
- Brexit legislative change, threats and opportunities



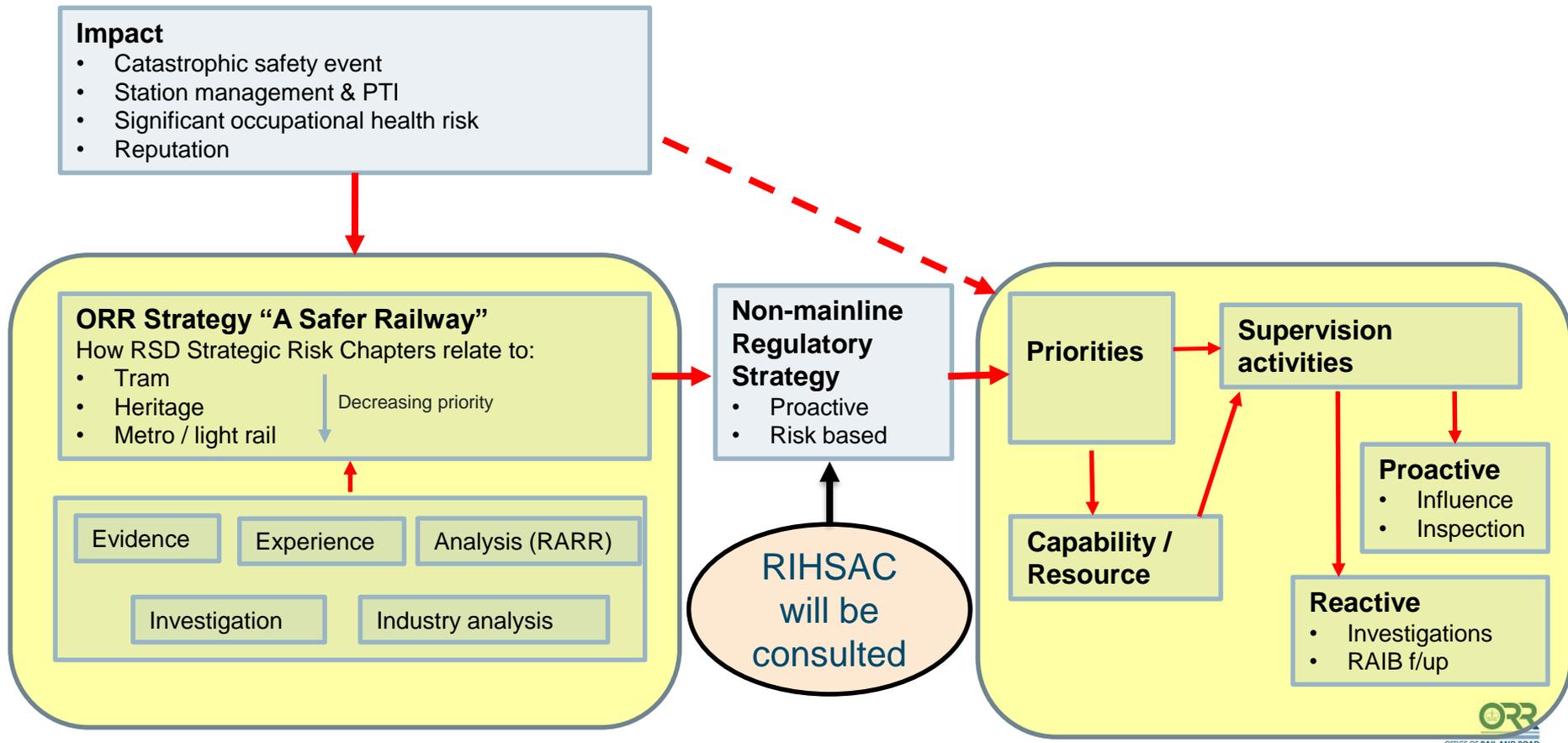
Strategic Risk Chapter - Tramways

RIHSAC 15 Jan 2019

Ian A Skinner;
Head of Heritage, Trams & Light Rail

Credible approach to regulation

Improve understanding & management of risk



Vision for tramways

- *“zero industry caused fatalities and major injuries to passengers, the public, and the workforce”.*
- By:
 - Strong central body;
 - Evidence-based approach;
 - Measure its own health and safety performance and take action
 - Performance benchmarks

Strategy

Tramway operators, maintainers and owners to have in place suitable and sufficient safety managements to properly identify the risk and implement the necessary controls, whether this is through infrastructure and systems, or through operating practices.

Sector

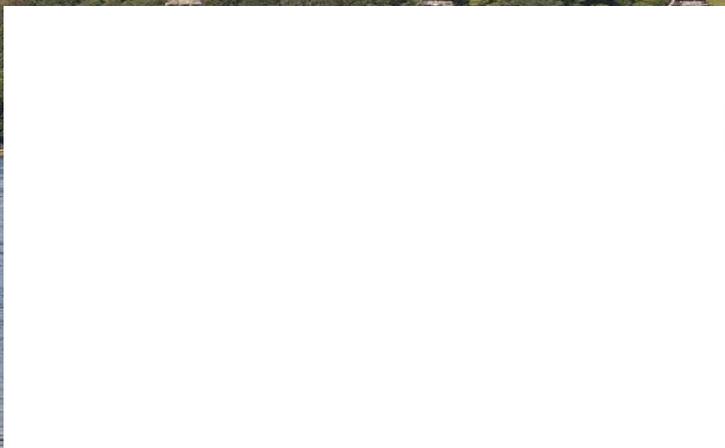
- Leadership & learning culture
- Cooperation
- Understand risk
- Hierarchy of risk control; reduce reliance on human systems where rp
- Strengthen regulatory framework

Dutyholder

- Inspection and investigation activity
- RM3 as a tool to identify success and areas to develop

Next steps

- Comments by end January 2019
- Update strategy by end March 2019





OFFICE OF RAIL AND ROAD

ORR Regulatory Policy to secure improved electrical safety and enhanced legal compliance on Network Rail infrastructure

RIHSAC 15 January 2019

An introduction to the development of ORR policy & an invitation to contribute observations, comments and suggestions

Anna O'Connor, ORR Railway Safety Directorate

“ORR protects the interests of rail and road users, improving the safety, value and performance of railways and roads today and in the future”

Regulatory Policy – Electrical Safety

- Today:
- Describe the background to development of ORR's draft regulatory policy for securing improved electrical safety on Network Rail infrastructure and better legal compliance
- Outline the main challenges to achieving improvements
- Describe the considerable progress Network Rail has made in drawing up its strategy for electrical safety
- Highlight main elements of plans for CP6 and beyond
- Introduce draft ORR policy and describe consultation



OFFICE OF RAIL AND ROAD

Why develop a regulatory approach to electrical safety?

“ORR protects the interests of rail and road users, improving the safety, value and performance of railways and roads today and in the future”

Introduction to proposed regulatory approach

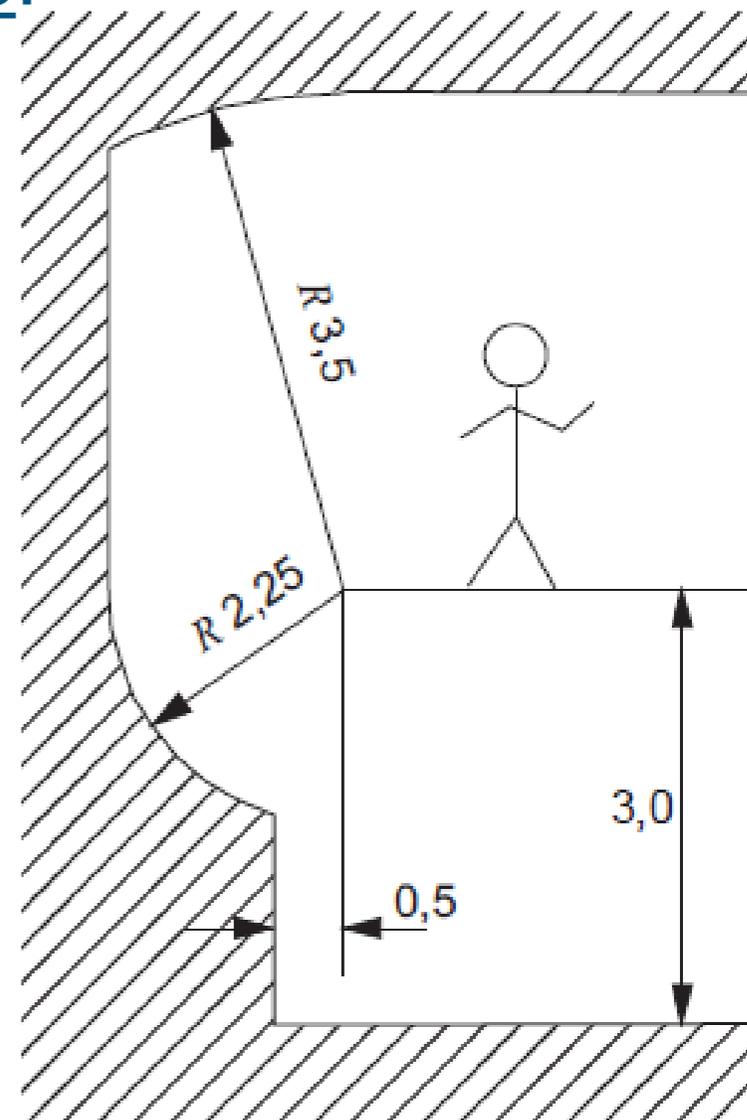


Introduction to proposed regulatory approach

- Appendix A of papers provided to RIHSAC members gives more detail
- In summary:
- Bulk of mainline electrification, both AC and DC, predated significant legislation such as Electricity at Work Regulations 1989 or Railway Interoperability Regulations 2011 – so assets were not designed to be compliant with some important requirements.
- Memorandum to EaW Regs recognised the constraints – but contributed to ambiguity about when, how and to what degree compliance was expected...
- The new generation of electrification schemes brought no easy resolution – because of legacy of UK ‘national condition’ (and associated confusion) and because ‘new’ projects overlaid onto existing infrastructure with all its challenges – platforms, bridges, level crossings etc.

Introduction to proposed regulatory approach

- Main issues in achieving better legal compliance:
- Clearances – esp. 3.5m as against 2.75m
- Circumstances when it might be reasonable to work live – consistent guidance
- DC challenge – live conductors near public
- Better securing of isolations
- Improve risk control:
- Better demarcation of dead/live
- More reliable securing of dead equipment



Introduction to proposed regulatory approach

- For a number of years ORR has been pressing Network Rail to articulate its strategy to improve safety of its electrical assets and bring them into better conformance with statutory requirements
- Its own deep dive assessment revealed a substantial gap in risk and compliance – prompting NR Board to determine more needed to be done
- Repeated arguments about the same issues with a variety of schemes showed a lack of consistency and understanding across Network Rail
- Network Rail adopted Electrical Safety Principles and Electrical Safety Delivery Programme
- Life Saving Rules as intermediate control...
- Electrical Safety Delivery Programme has continued to evolve and mature throughout CP6 – culminating in November 2018 Strategy statement

Introduction to proposed regulatory approach

- Network Rail has articulated a coherent strategy to achieve targeted, proportionate improvements in the control of risk at its electrical assets, and to ensure enhanced compliance with important legal requirements
- The strategy encompasses a range of measures, including hard engineering solutions, innovative technology, increased staff competence, revised/new rules, standards and procedures
- It is a staged programme – not everything can be achieved overnight
- It has a cut-off point – diminishing returns; marginal improvements for substantial effort/outlay i.e. gross disproportion
- ORR wants to make a public statement of the trajectory it has accepted – so that: expectations are clear; progress can be monitored; Network Rail can be held to account to deliver what has been promised; inspectors don't distort priorities with imperfectly targeted enforcement



What has Network Rail committed to?

Introduction to proposed regulatory approach

- Network Rail's submission for CP6 included:
- The final determination included £263 millions to fund the programme

E Driving safer, quicker access through Electrical Safety

The Electrical Safety Delivery (ESD) programme will reduce safety risks to track workers, reduce the impacts of achieving electrical isolation and improve the productivity of maintenance and renewal activities on electrified sections of the network. The programme brings together priority needs to improve the safety of our workforce and to drive down the costs of managing the railway in an environment where opportunities to access the railway are reducing.

Introduction to proposed regulatory approach

Driving safer, quicker access through Electrical Safety



The Electrical Safety Delivery (ESD) programme forms part of the Home Safe Plan and is driven by an urgent need to mitigate the Level 1 electrical power risk “Failure to deliver and implement an effective electrical system management framework leading to a serious safety incident, non-compliance to legislation, prosecution and significant rise in programme costs.” ESD was endorsed by NR’s Executive Committee in February 2015.

ESD aims to reduce safety risks to track workers, reduce the costs and impacts associated with achieving electrical isolation and improve the productivity of maintenance and renewal activities on electrified sections of the network. The productivity gained through the implementation of ESD initiatives is an average time saving of 40 mins per possession. The programme brings together priority needs to improve the safety of our workforce and to drive down the costs of managing the railway in an environment where opportunities to access the railway are reducing.

The ESD programme spans CP5 and CP6. In CP5, investment is focussed on installing assets to help improve compliance with the Electricity at Work Regulations (EaWR) and improve electrical safety on the DC electrification system. In CP6 the ESD programme will build on trials carried out during CP5 on the 25kV AC electrification system. It will install or renew remotely controlled and electronically secured assets that will reduce electrical safety risk, improve compliance and improve the efficiency of taking electrical isolations. The spend and benefits profile are shown in figure 8; and the change in capability, route by route, is shown in figure 9.

ESD Provides 50 % reduction in electric shock risk specifically:

- Eliminating, or reducing the use of, AC earthing straps and DC shorting straps which are high-risk with life threatening consequences; and
- Reducing the need for work to be undertaken with overhead of third rail electrical conductors live through the ease and speed of isolations

Marginal benefits are also available from reductions in incidents from manual handling and road traffic accidents.

The benefits are clear when viewed in the light of challenges facing a route. Wessex faces substantial challenges that can be unlocked through ESD. Risk issues when accessing the infrastructure to carry out isolations including contact with electricity, contact with trains, slips, trips, falls and manual handling and driving. Performance issues from a backlog of maintenance and renewals and train service affecting failures. And productivity issues from restrictive mid-week night access windows, insufficient working time to complete tasks in one shift, constraints from the need to maintain a core overnight freight service to Southampton. ESD offers solutions which are summarised in figure 10.

Introduction to proposed regulatory approach

Safety & Performance

- Significantly reduces the need for short circuit straps - less driving, less accessing the infrastructure, less manual hand
- Provides secure and reliable protection with safe and easy operation
- Significant Reduction in the use of Sub Contractors
- Faster Isolations providing more working time
- Increased Standardisation of isolation plans
- Standardisation of diversionary train routes & berthing arrangements
- Less disruptive access
- A shift to more planned access and less late notice change

Productivity

- 20 % increase in available working time per mid week night access
- Better deployment of maintenance teams
- More work achievable per isolation, allows better packaging of work
- More miles and work per rail machine shift (i.e. HOBC, Rail Grinder)
- Capability to gradually reduce backlog cycle

Future Potential - DC Safer Isolations technology is designed to take advantage of remote securing. A suitable remote secure solution will enable even more performance, safety and compliance benefit to be realised from this investment.

Introduction to proposed regulatory approach

- CP6 plans include physical works including CMSDs, CMEs, remote securing and DC depot improvements
- Supplementary Isolation Procedures
- Single Approach to Isolation
- Continued use of Electrical Safety Decision Support Tool – to determine next stages





OFFICE OF RAIL AND ROAD

ORR's draft regulatory policy – and next stages

“ORR protects the interests of rail and road users, improving the safety, value and performance of railways and roads today and in the future”

Introduction to proposed regulatory approach

- The Policy describes ORR's expectations of minimum standards at both new and legacy electrical assets
- It will set out Network Rail's commitments – so all of industry, the public and inspectors know what to expect to see on the ground, and by which date
- It articulates that we are not seeking compliance at any cost – and have accepted that there will be a cut-off point where further improvement becomes grossly disproportionate
- It provides a framework for enforcement – allowing targeted, proportionate action in circumstances where risk is not well controlled or promised improvements have not been delivered.

Introduction to proposed regulatory approach

- What can RIHSAC members do?
- By 22nd January – ORR will provide an updated draft
- We will write describing the deadline for submissions
- We invite:
 - ✓ Observations
 - ✓ Suggested amendments
 - ✓ Suggested additions
 - ✓ Suggested clarifications
 - ✓ Any other comments you think will be useful

Introduction to proposed regulatory approach

THANKYOU

QUESTIONS?



Brexit and rail safety update

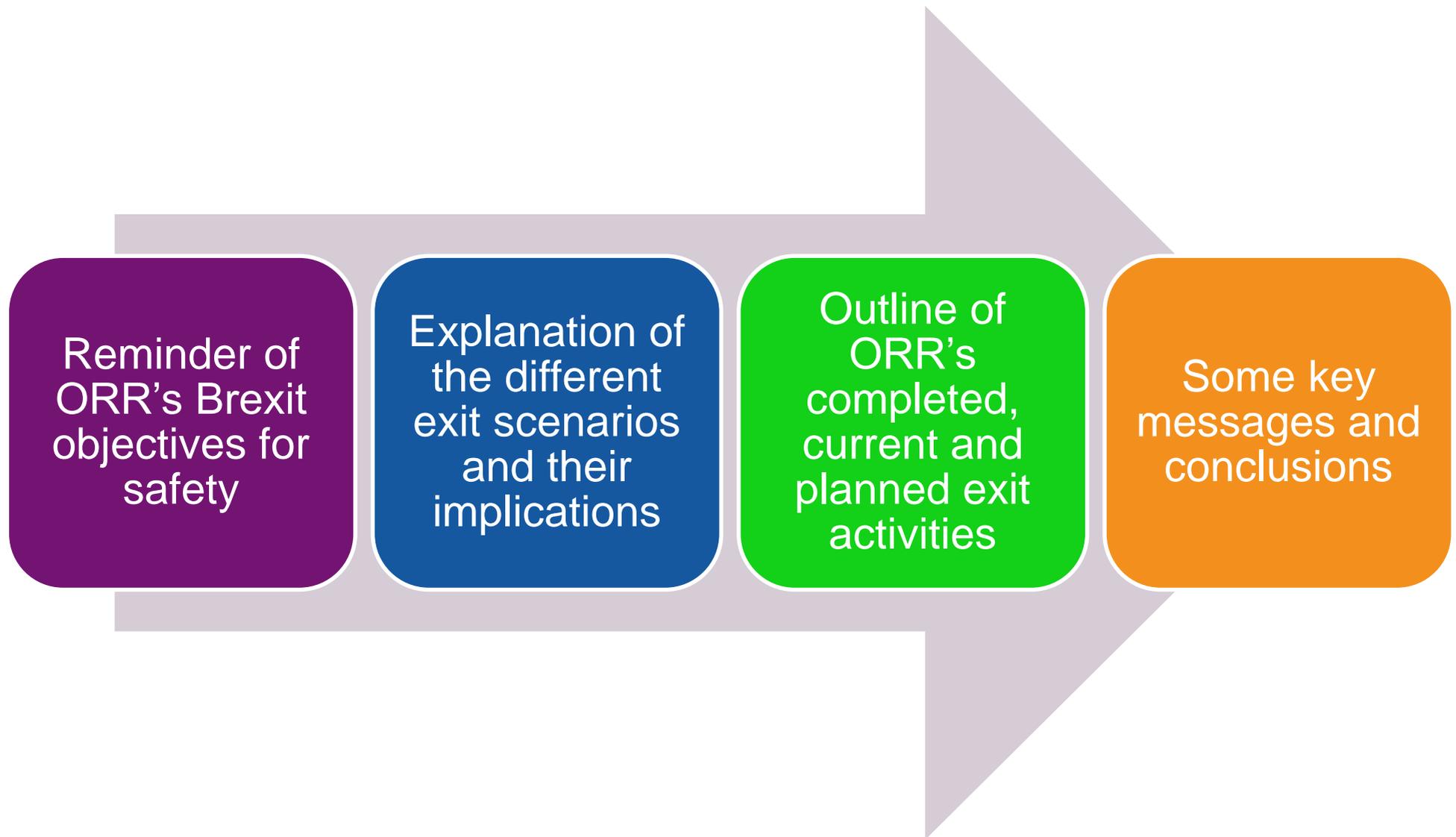
RIHSAC

15 January 2019

Martin Jones

Head of Railway Safety Policy

This session



ORR's Brexit strategy

- Board agreed short, medium and long-term objectives in April 2017. For safety regulation (incl driver licensing) these are:

STO: Keeping things working

- Regulatory framework experiences minimal disruption
- A set of law (and supporting guidance and processes) that works on 30 March 2019.
- As far as possible, mutual recognition of UK issued licences and certificates preserved; contingencies in place if not.

MTO: Getting the deregulatory quick wins

- Work closely with Govt to identify and make beneficial improvements to our legislation
- Retaining compliance with EU requirements as a *voluntary* means of conformity with UK requirements
- Ensuring sufficient regulatory convergence for operators who require EU recognition

LTO: Seeking excellence over convergence

- Establish new arrangements with European partners to preserve the coherence in approach necessary to sustain the medium term objective.
- Take opportunity of no longer having fully to implement EU law to simplify our framework for those large parts of the sector that have no commercial or operational imperative towards harmonisation.
- **Reviewing and optimising a regime to support the safest railway in Europe rather than improving the EU mean**

- Separate objectives (not covered here) exist for interoperability and Channel Tunnel

Exit scenarios

Scenario	Would we still comply with EU law?	How might domestic law be affected?	What about relationships with Europe?
Until 30 March 2019 	Yes	<i>No change, prepare to implement fourth railway package (2016 Directives and CSMS) alongside developing legal changes required by “no deal” scenario</i>	<i>Continue full participation</i>
No deal 	No	<p>HSWA and regulations made under it <u>including ROGS</u> continue to apply; <u>ORR</u> continues as rail H&S regulator and enforcing authority under Railways Act 2005 and EAR Regulations 2006;</p> <p>Legislation implementing EU <u>Directives</u>, such as safety and train driver licensing, will be “fixed” to remove references to EU concepts and institutions and will remain in force under EU Withdrawal Bill.</p> <p>EU <u>Regulations</u>, such as the existing common safety methods, will also be “fixed” and copied into UK law</p> <p>The 2016 safety and interoperability Directives and the associated new CSMS would <u>not</u> become part of UK law.</p> <p>The TSIs will become UK “TSI notices”, allowing DfT to amend them to keep pace with EU law <u>or</u> to diverge from them to reflect UK needs.</p>	<p>No formal representation; UK issued safety certificates and driving licences <u>immediately cease to be valid in EU (including FR half of Channel Tunnel)</u></p> <p>Current proposal is to continue recognising EU documents in UK for two years after exit day</p>
Implementation period (transition deal) 	Yes until Dec 2020	As per “no deal”, but <u>probably</u> involves transposing 2016 Directives and new CSMS into UK law in exchange for continuing recognition of UK issued licences and certificates during the implementation period	UK aim is to be treated as a Member State during the implementation period
Future Economic Partnership with EU from 2021 	?	<p>Depending on the nature of UK’s long-term arrangements, we might:</p> <ul style="list-style-type: none"> • Continue following EU rail legislation (fourth package) in full; or • Disapply the parts of the fourth package that are politically challenging (e.g. mandatory compliance with TSIs, certification role of ERA); or • Revert fully to current legislation (ROGS 2006 / RIR 2011); or • Do something completely different (for better or worse!) <p>Government recognises that Channel Tunnel will need arrangements that are closer to EU law (or identical to it).</p>	<p>New arrangements to be negotiated but will certainly <u>not</u> involve voting rights. Participation likely to be at technical / industry level (except for Channel Tunnel NSA)</p>

Don't panic! UK railway safety framework has sound foundations...

- RIHSAC previously agreed these as:
 - Application of general health and safety legislation and the key principles it sets out around management and control of risk to the whole rail sector;
 - A “permission to operate” regime under the responsibility of the independent safety regulator (rather than the infrastructure manager)...
 - ...based on assessment and supervision of a high-level safety management system (rather than a detailed safety case);
 - Joint responsibility for system safety with appropriate sharing of responsibility between train operators and the infrastructure manager, supported by a duty of co-operation and industry-led development of standards;
 - Risk assessment of significant changes supported by independent verification;
 - A sector-specific health and safety regulatory authority and a separate independent accident investigating body.
- None of these foundations disappear in March 2019 and they form the basis of longer-term development of regulation
- However, there are some challenges and risks associated with a “no deal” exit...

Scenario A: Implementation period

ROGS will be amended by June 2020; no changes to driver licensing Regulations

UK-issued documentation continues to be valid in EU and vice versa (until December 2020 or beyond if long-term deal)

ERA will be given a role in certification of international train operators as their existing certificates expire

New EU regulations on SMS criteria and assessment process will be brought into effect. Single Safety Cert will replace Part As and Bs.

Applications will be managed via ERA's web-based one-stop-shop application management system

ORR-ERA co-operation agreement in place by June 2019 to ensure our expertise is sought and provided on relevant certificate applications

Uncertainty about what happens at end of implementation period.

Scenario B: No deal

ROGS and TDLCR will be amended by 29 March 2019; Fourth Package will be transposed in Channel Tunnel

UK documents will cease to be valid in EU; UK will recognise EU documents until March 2021

No material changes to assessment process, SMS criteria or nature of certification. **Domestic operators largely unaffected**

Immediate challenge for UK-based international operators who rely on ORR-issued safety certs and driving licences

Bi-lateral discussions underway with EPSF: some promising workarounds on safety certs and on driver licensing

An MoU with EPSF will be needed to ensure joint approach to certification and inspection of UK-based international operators

Further opportunities for evolving UK legislation may arise in longer term.

Stakeholder perspectives



Current and planned activities

Advising DfT and DEXEU

- ORR attends DfT's Rail Exit Board
- Quarterly bi-laterals of all ORR and DfT EU policy leads
- Topic-specific working groups reviewing no-deal legislation in detail (including ORR legal input)
- No deal regulations expected to be laid in February (high-level consultation took place in Autumn 2018)

Engaging UK industry

- Joint ORR-DfT-industry "mirror group" on safety and interop ran during 2016 and 2017 with informal remit to cover both Brexit and fourth package issues
- Closely involved with RDG Brexit position papers and workshops e.g. on ERA relationship
- Series of DfT-led "no deal exit" workshops and consultations in 2018
- Using existing industry forums e.g. ISCC, European Engagement Forum etc.

Continuing EU influencing work

- UK still a member of RISC, NSA Network, ERA Management Board with full voting rights until March 2019
- Examining and improving fourth package tertiary legislation (now largely completed)
- Lead role in ERA-NSA co-operation agreement development (framework agreement in place mid 2018 with bilateral negotiation now started)

Planning for all scenarios

- Both scenarios require a similar amount and type of work from ORR. Timescale has demanded that we prioritise no deal preparation
- Resource secured in business plan for 2018/19 and 2019/20 (though our and DfT's ability to prioritise other safety legislative work has been affected)
- Clearly we expected to know by now which scenario we are working to but we are in position to implement either

Internal communications and co-ordination

- Series of Board papers in 2018 on: timescales and risks (info, April); safety and interop regulation objectives (steer, June); future relations with ERA and other NSAs (decision, October)
- Further Board papers planned in 2019 to formally sign-off co-operation agreements with EPSF or ERA (as appropriate)
- Small, cross-RSD project team to take us to 2020

Key messages / conclusions

- Brexit challenging for rail because EU rules are changing concurrently with exit process
- Continued uncertainty about the nature of UK's arrangements in under ten weeks' time – ORR needs to be capable of responding to all scenarios
- Loss of mutual recognition (rather than undermining of safety) is the immediate threat
- Agreement of an implementation period is remains the preferred approach and will entail (at least partial) fourth package transposition
- Legal changes – not policy changes – in March 2019: important to manage concerns / expectations
- There is a wide divergence of stakeholder views, including within Government
- Opportunity / threat of more substantive regulatory changes will not arise until later (2021 onwards)



OFFICE OF RAIL AND ROAD



**Questions
and
feedback?**