



OFFICE OF RAIL AND ROAD

BRIDGE OWNERS FORUM OFFICE OF RAIL AND ROAD

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Luisa Freitas and Danny Jennings

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

OVERVIEW

- **ORR's Role and Structure**
- **Safety Perspective**
- **Economic Perspective**
- **Highways Monitor**
- **Railway Structures – Challenges**
- **Highway Structures – Challenges**

ORR's Role and Structure

▪ Who we are

The ORR is the independent economic and safety regulator for Britain's railways, and monitor of performance and efficiency for England's Strategic Road Network.

▪ What do we do for Rail

- Keep Britain's railways safe
- Hold Network Rail to account
- Protect consumer interests
- Provide clear information about railway funding and industry performance
- Make sure passenger and freight companies have fair access to the rail network
- Regulate the High Speed 1 route and Channel Tunnel
- Advise and assist governments on rail issues

ORR's Role and Structure

■ What do we do for Roads

Holding Highways
England to account for
delivering the current RIS



Monitoring motorway and
trunk road performance



Monitoring delivery
of enhancements



Monitoring delivery of
maintenance and
renewals



Securing value for
money



Making sure the road
network meets user needs



Advising and assisting
government on roads issues

Advising on the next RIS

Efficiency

Challenging

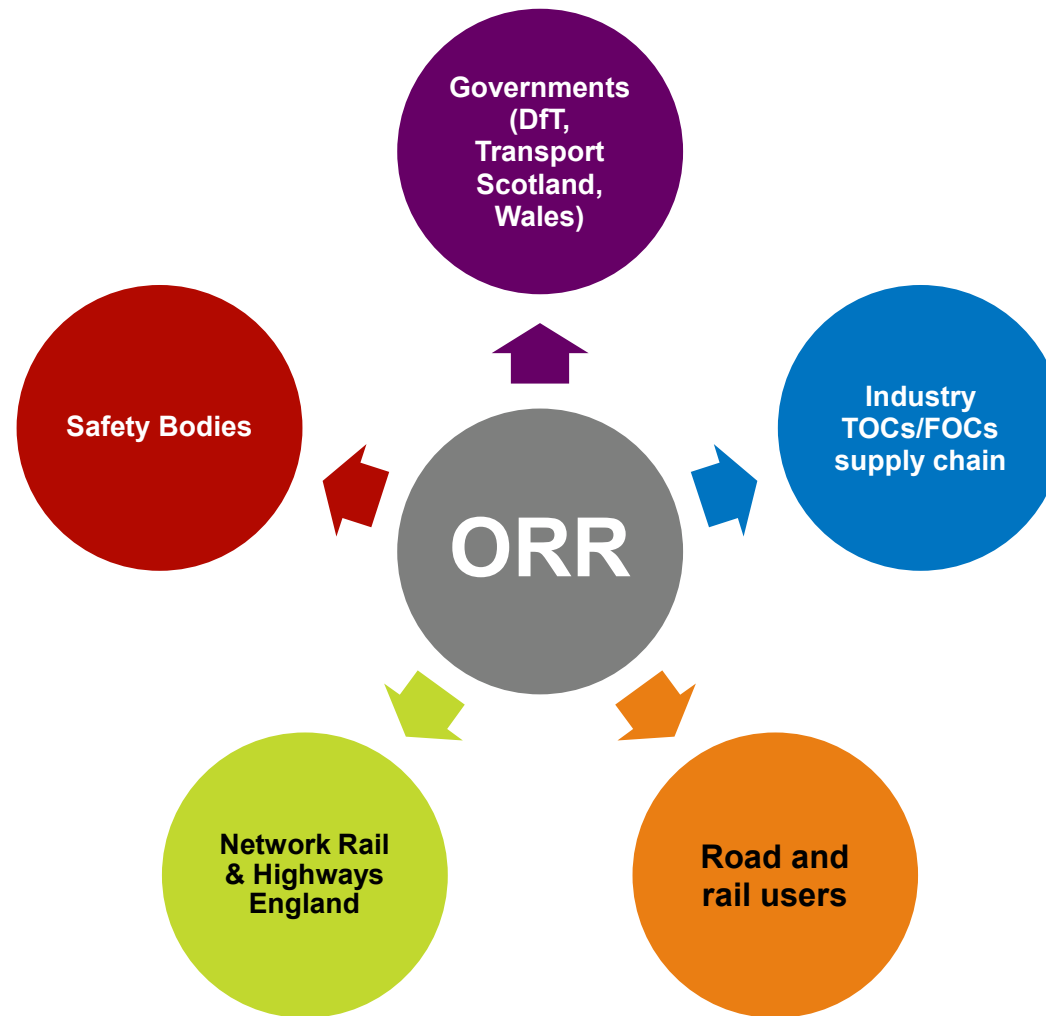
Motorway
Major A road

Deliverable

Future
performance



ORR's principle interactions



ORR's Strategic Objectives



**HEALTH
AND SAFETY**



**BETTER RAIL
CUSTOMER
SERVICE**

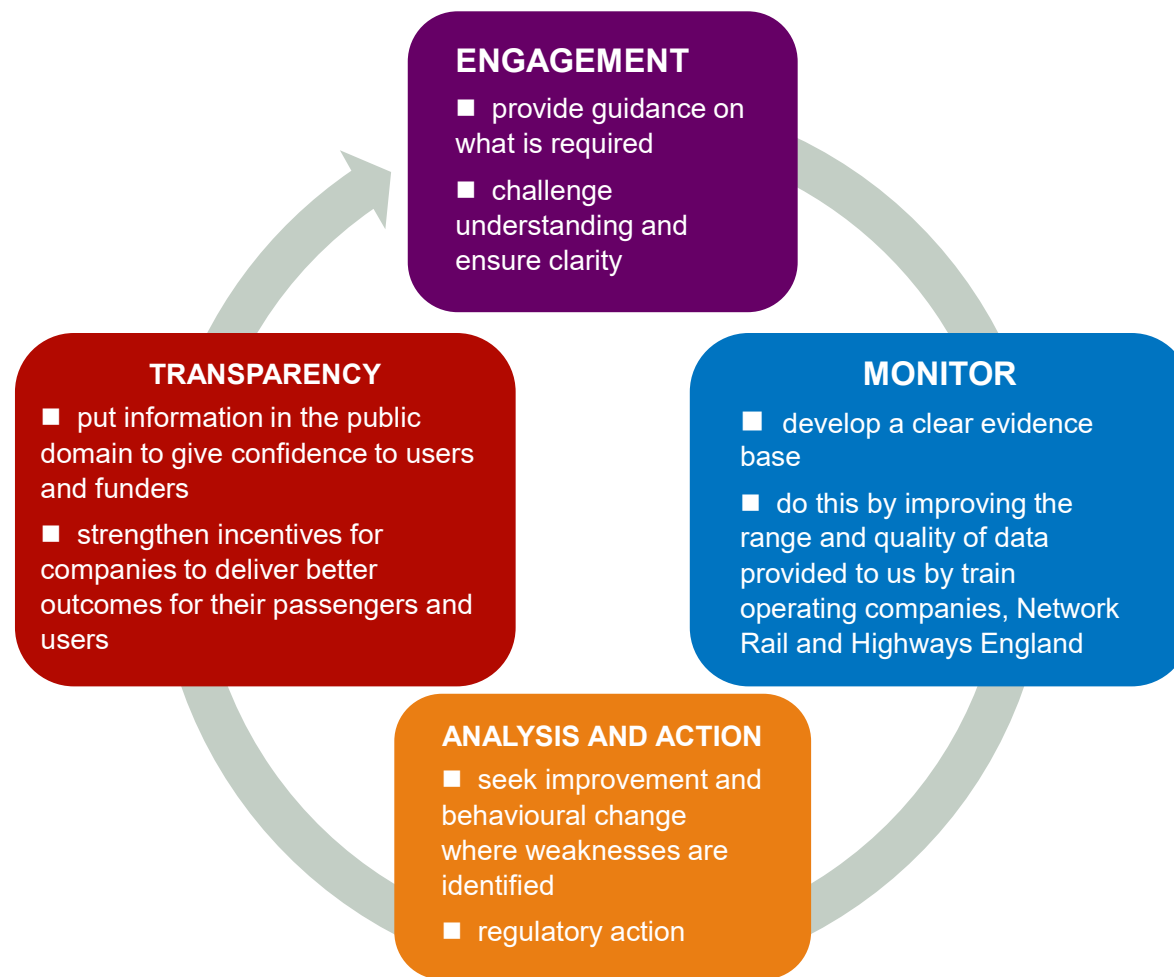


**VALUE FOR
MONEY FROM
THE RAILWAY**



**BETTER
HIGHWAYS**

Our overall approach to regulation



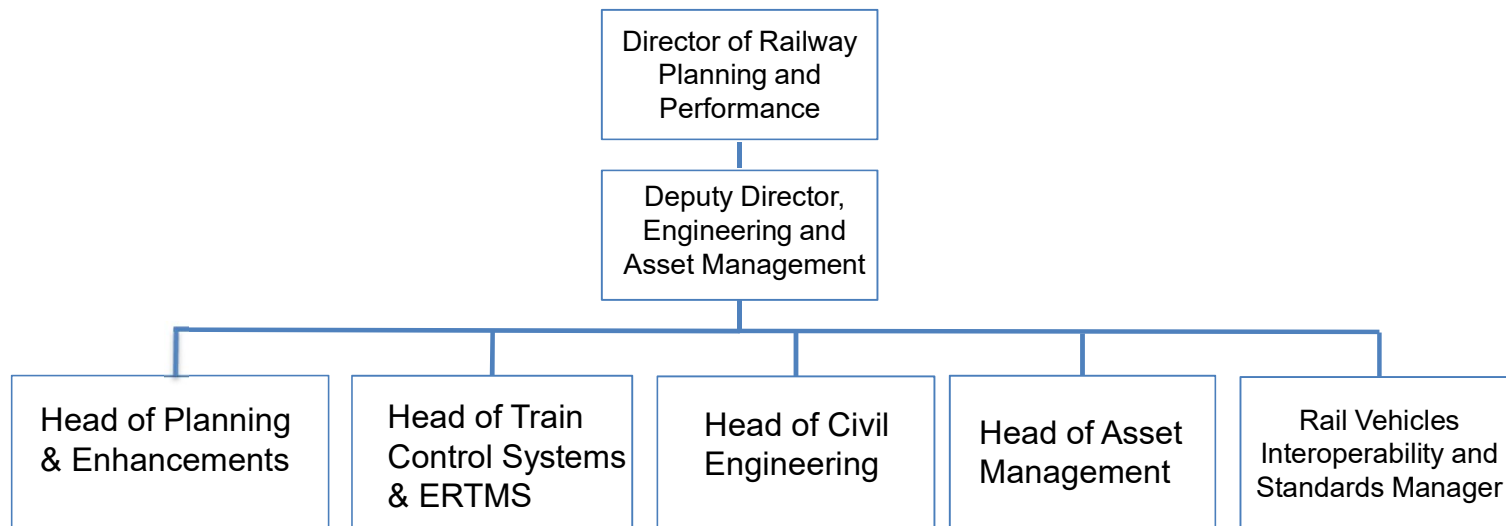
Our Structure - I

Organisational Summary



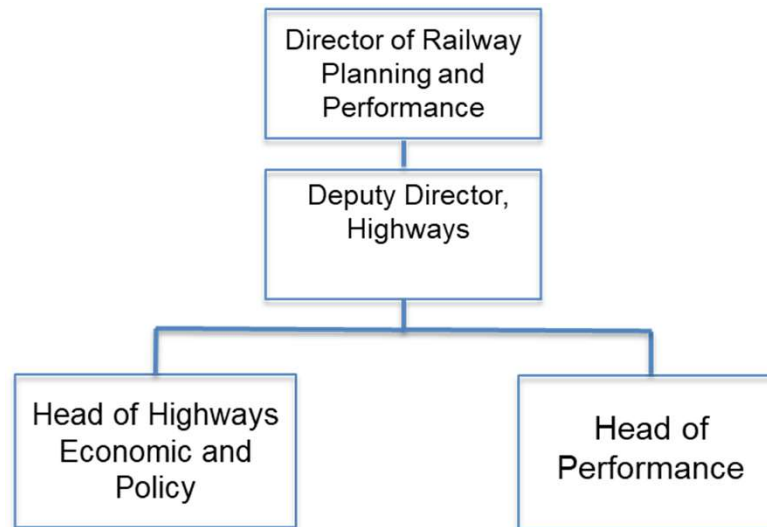
Our Structure - II

Railway Planning & Performance Directorate



Our Structure - III

Highways



Safety Regulation

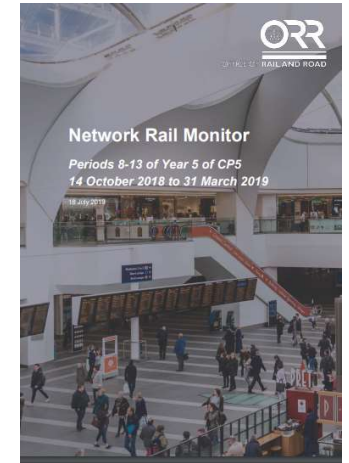
Role of the Railway Safety Directorate

- It is our responsibility to ensure that duty holders make Britain's railways safe for passengers and provide a safe place for staff to work.
- We safeguard passengers, the public, and the workforce by regulating the rail industry's health and safety performance and promoting continuous improvement.
- We carry out inspections and investigations to ensure that the TOCs, FOCs, Network Rail and other duty holders manage railway health and safety risks effectively.
- We enforce compliance with relevant health and safety law.
- Effective asset management forms part of our safety regulation work – we work alongside other parts of ORR to achieve this.

Economic Regulation I

Role of Railway Planning & Performance Directorate

- monitoring Network Rail's delivery against targets
- scrutinising Network Rail's spending plans
- publishing reports on Network Rail's performance and efficiency
- rewarding Network Rail for good performance and taking enforcement action where necessary – including financial penalties
- making sure that Network Rail complies with the condition of its licence
- taking appropriate action when Network Rail's performance does not meet the conditions of its licence
- authorisation of projects that need to demonstrate conformance with the TSIs.



Economic Regulation II

Holding NR to account

- Reviewing performance against deliver plan requirements on costs, volumes and performance - Periodical internal meetings
- Frequent technical liaison meetings to discuss engineering issues and review issues with delivery and performance
- Ad-hoc meetings and site visits with regions and project teams to discuss progress and specific issues

Periodic Reviews Support

- Reviewing asset policies to ensure that they are appropriate and will deliver the outputs if implemented
- Review proposed delivery plans to determine
 - Alignment with asset policies
 - Overall deliverability
 - Value for money

Highways Monitor I

Content of the Road Investment Strategy

■ Strategic Vision

- Sets out DfT's long-term vision for the SRN

■ Investment Plan

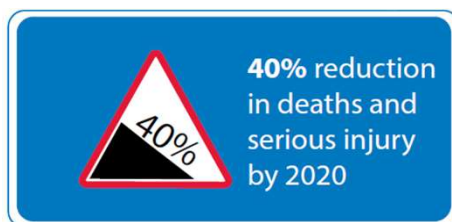
- Names specific major enhancement projects
- Broad objectives for renewals
- Includes "SoFA" – Statement of Funds Available

■ Performance Specification

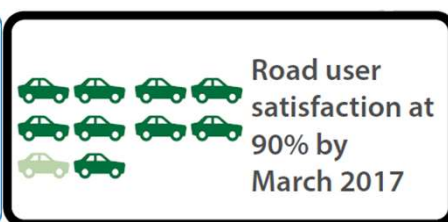
- Outcome areas
- Key Performance Indicators
- Performance indicators and requirements

Highways Monitor II

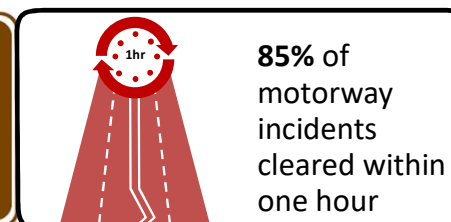
Making the network safer



Improving user satisfaction



Supporting the smooth flow of traffic



Encouraging economic growth



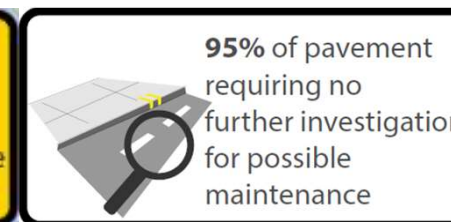
Delivering better environmental outcomes



Achieving real efficiency



Keeping the network in good condition



Investment plan

£7bn investment in **112** major projects

£3.6bn investment in **renewals**

£675m in 'ring-fenced funds' supporting specific goals

Highways Monitor III

Enforcement and Escalation

- Infrastructure Act gives us enforcement powers to issue notices or fine Highways England if contravening the RIS or its Licence
 - “Licence” is name given to statutory directions and guidance from gov’t to HE, setting out its general duties
- ORR has published enforcement policy and is currently consulting on revisions for RIS2
 - Emphasises importance of early resolution, fines as a last resort, and scaling fines to protect funding for day-to-day operations
- Frequent engagement with HE
- Have not used formal enforcement powers so far during RIS1



Railway Bridges - Challenges

Railway Assets – Structures I

Asset Type	Asset Count
Bridges	27,700
Major Structures	34
Tunnels	628
Footbridges	1,409
Culverts	21,678
Retaining Walls	20,085



Railway Assets – Structures II

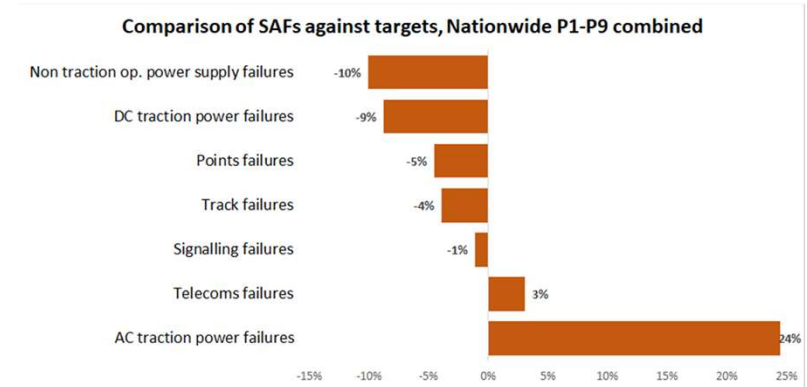
Why are they important ?

- A vital part of the infrastructure (safety and performance). Many civil assets are old and still functioning at imposed loads.
- PR18 Expenditure - £ 2.25 bn
- Typically very long life assets
- Typically taken for granted and historically neglected

Railway Assets – Structures III

Performance and Delivery

- **Services affecting failures (SAF)**
- **Reliability (CRI)** It is calculated by weighting the incidents of a certain set of asset failures by their impact on train service
- **Sustainability (CSI)** is a measure which shows the percentage improvement of asset sustainability.
Measured by asset condition score – BCMI
- **Business Plan Delivery – M&R Volume Reporting**



Structures
Coastal & Estuarine Defences (#)
Coastal & Estuarine Defences (m)
Tunnels (# assets)
Tunnels (m2)
Overbridges (# assets)
Overbridges (m2)
Underbridges (# assets)
Underbridges (m2)
Footbridges (# assets)
Footbridges (m2)
Retaining Walls (# assets)
Retaining Walls (m2)
Culverts (# assets)
Culverts (m2)
Structures (volumes)

Railway Assets – Structures V

Challenges

■ Structures Examination Backlog

■ **Management of Scour** – A national programme was implemented by NR to update the scour risk assessments, carry out remedial work, and ensure that suitable extreme weather plans are in place.

■ **Management of Retaining Walls** – Improvement strategy developed, which involved a retaining wall risk prioritisation tool



Highway Assets – Structures I

Monitoring Performance

- Monitor and assess performance at keeping the network in a good condition

Figure A25: Pavement condition



Asset	PI	2018-19	RP1 Trend
Geotech	Condition	97.2% ▶	
	Inventory	12,987 km ▼	
Technology Availability	Control Centre	99.97% ▶	
	National Roads Telecommunications Services	99.99% ▶	
	Roadside	98.60% ▲	
Drainage	Inventory Coverage	91% ▲	
	Condition Coverage	33% ▼	
Structures	Inventory	98.3% ▲	
	Condition average (SCav)	85.35 ▲	
	Condition critical (SCcrit)	63.38 ▲	
	Rating of 'good' (SCI)	79.8% ▶	

Key: Relative to position in 2017-18 - ▲ increase ▶ no change ▼ decrease

Highway Assets – Structures II

Monitoring Delivery of Investment Plan

- Renewal of structures – bridge joint, bridge bearing, parapet, waterproofing

2018-19 Commitments		Planned Output	Actual Output	Output Variance
Renewal of roads - pavement	Pavement (lane kilometres)	1,800	1,940	+8%
Renewal of roads	Traffic Signs (number)	1,000	1,829	+83%
	Guardrail (kilometres)	0.625	1.0	+58%
	Kerbs (kilometres)	26.8	39.8	+48%
	Boundary Fencing (kilometres)	35.8	48.2	+35%
	Road Markings (kilometres)	2,850	3,694.5	+30%
	Lighting (number)	1,720	2,147	+25%
	Vehicle Restraint System (VRS) (kilometres)	188	204.5	+9%
	Geotechnical (kilometres)	3	3.2	+7%
Renewal of structures	Drainage (kilometres)	165	174.5	+6%
	Bridge Joint (number)	355	634	+79%
	Parapet (kilometres)	1.3	1.7	+29%
	Waterproofing (square metres)	118,100	112,763	-5%
	Bridge Bearing (number)	192	98	-49%
Renewal of technology	Winter Resilience (number of completed schemes)	40	58	+45%
	Network Resilience (number of completed schemes)	33	43	+30%
	Renewals and Improvements (number of technology assets renewed or improved)	343	429	+25%
	Motorway communications equipment (number of new or replaced items)	157	177	+13%

Highway Assets – Structures III

Challenges

- ‘Line of sight’ between performance metrics, delivery and Licence – improvements in reporting, delivering closer to plan, clarity on changes
- Monitoring of risk
- Inspections backlog

Stakeholder Engagement

- Face-to-face, stakeholder newsletter, blogs