

Central Rail Systems Alliance Innovation Journey



Head of Innovation - Ameet Masania

AGENDA

- Innovation journey
- Current Key Projects:
 - Rostering – Continuous Improvement
 - 360 Immersive training – People
 - Any line open (ALO)– Supply chain
 - Digital Speed boards – Digital technology
 - Project Heineken – Efficient delivery
- AOB

YEAR 6

YEAR 7

YEAR 8

YEAR 9

YEAR 10

The Innovation Journey

Delivering value & efficiency

GET THE BASICS RIGHT

DEVELOP OUR PEOPLE

BUSINESS CHANGE & COMMS

BEAT TARGETS WITH SUPPLIERS

LEADERS OF DIGITAL TECHNOLOGY



Signal
Templated Jobs



Digital Forms



Project Landing
Zones

ORACLE
ORACLE & Kronos
integration

Digital
Timesheets



Joint
Walkouts



Igloo – Staff Training



Comms Calendar



Vision & Outcomes
defined



Project
Sponsorship

City & Guilds
Developing
Future Talent



Comms Newsletter



Standardisation:
Stakeholder
TORs



Rail Lights



Plan – Do - Review



VR safety



Mature Change
Leadership and
Accountability



Senior Stakeholder
as Change Agents



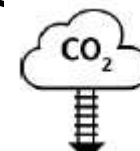
ALO working inside
lines



Mechanising Track
Renewals MVP



Multi
skilled
staff



Greener Material



RRV Sidings



Autonomous
plant



Spot the dog



Augmented reality



Satellite data



AI



ESR boards

Signal Roster Tool

GETTING THE BASICS RIGHT

Problem

How do you show a compliant roster (fatigue and risk) and efficient use of resource?



Benefits

- Compliant to HSE fatigue standard
- Ability to manage our resources efficiently
- Automation of time sheets
- Supply chain integration & streamlining the application for payments
- Empowered work force

Phases of project

1. Fatigue management
2. Digital time sheets
3. Supply chain integration
4. Templated jobs

Fatigue Reduction: The Standard - NR/L2/OHS/003

When was it published?
The new standard is a revision to the previous standard. It was published in a modularised format in December 2019.

What's changing?
The previous standard only covered safety critical workers, but the new standard **applies to everyone** within Network Rail and those working on Network Rail infrastructure, assets & systems.

Unlike the previous standard it does not impose limits on what people can work but instead introduces 'trigger conditions' where mitigating actions are required.

It reinforces a consistent risk management based approach to tackling fatigue in our business.

When do I have to comply?
In recognition of the need to embed fatigue management behavioural and cultural change, the compliance date is **October 2022**.

This may feel like a long way away but there is a lot of work we can all be doing now to make the transition in time.

What should I be doing now?

- Take the [Fatigue Awareness E-learning](#).
- Read the standard. An e-learning technical briefing on the standard is available too.
- Make contact with your local fatigue reduction [team](#) to learn more about your area's local transition planning.
- Join the [Fatigue Reduction Yammer](#) page to receive regular fatigue related posts and information.
- Include a discussion on fatigue in your team meetings and 1-1s.
- Consider the use of the Karolinska Sleepiness scale to start the conversation about fatigue in your team (see our 'How alert are you?' document for more information).

Things to talk about in your team...

- Has anyone ever felt fatigued at work?
- What caused it?
- How did they know they were fatigued (what were the signs)?
- What did they do about it?
- Would the team report fatigue? Who to?

SIGNAL
Team Environment

Bookings Availability Timesheets Compliance Employees

Search Filter **Siu Lam** View previous rows

	Depot	Project	Work Package	Access Point	Postcode	Activity	Resource Duty	Competency	Additional Competencies	Skills
☐	Crew Domestic	FL	DENBIGH HALL		CW1 6RT			POS	☐	☐
☐	Crew Domestic	FL	DENBIGH HALL		CW1 6RT			COSS	☐	☐
☐	Crew Domestic	FL	DENBIGH HALL		CW1 6RT			Skilled Tradesman	☐	☐
☐	Crew Domestic	FL	DENBIGH HALL		CW1 6RT			Skilled Tradesman	☐	☐
☐	Crew Domestic	FL	DENBIGH HALL		CW1 6RT			Skilled Tradesman	☐	☐
☐	Crew Domestic	FL	DENBIGH HALL		CW1 6RT			Skilled Tradesman	☐	☐

Let's get this week started

360 Immersive Training

DEVELOPING OUR PEOPLE

Problem

How do we upskill staff by breaking away and improving the traditional methods of training?

Benefits

- Engaging, dynamic and effective training
- Interactive method of training
- Enhanced collaboration & versatility
- Working in partnership with Wolverhampton Uni



Any Line Open (ALO) working

BEATING TARGETS WITH OUR SUPPLIERS

Problem

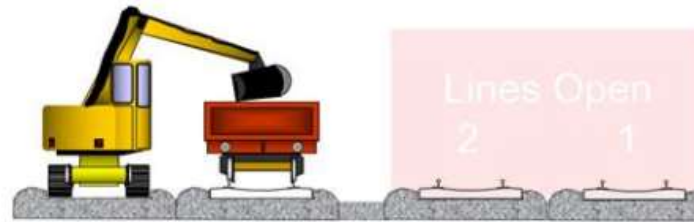
How do we run trains or freight across the network while completing track renewals in a safe environment?

Benefits

- Maximising train paths
- Minimising disruption to rail services
- Offer more flexible services to passengers
- Reduced reliance on "Line Blocks" for activities
- Opportunities to increased volume delivery

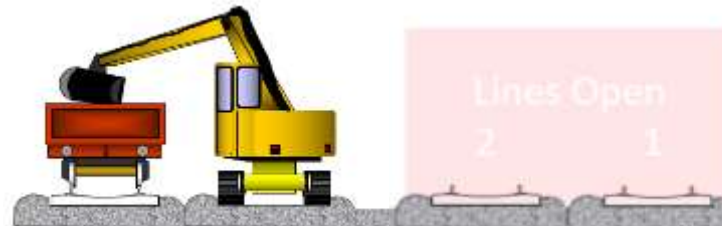
Phase 1 – Outside lines

- GKD virtual wall technology approved
- Assurance plan in place to using the new technology
- Stakeholder buy in – Regions, ORR, ST&E, ISLG, National Safety council
- Trials with staff to demonstrate BAU
- Plan access in CP7 Y2



Phase 2 – Inside lines

- Developing a prototype Dynamic Virtual Wall





Digital Speed Boards & AWS Magnet

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Problem:

Can we remove the need for staff to access site to change the boards by using a digital remote-controlled alternative?

Benefits

- Reduction in boots on ballast
- Reduction in the requirement staff to cross live lines.
- Infrastructure capacity increased due to quicker updates.
- Reduce service disruptions for train operators.

Current process



Future process



A quick guide to TSR's

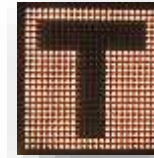
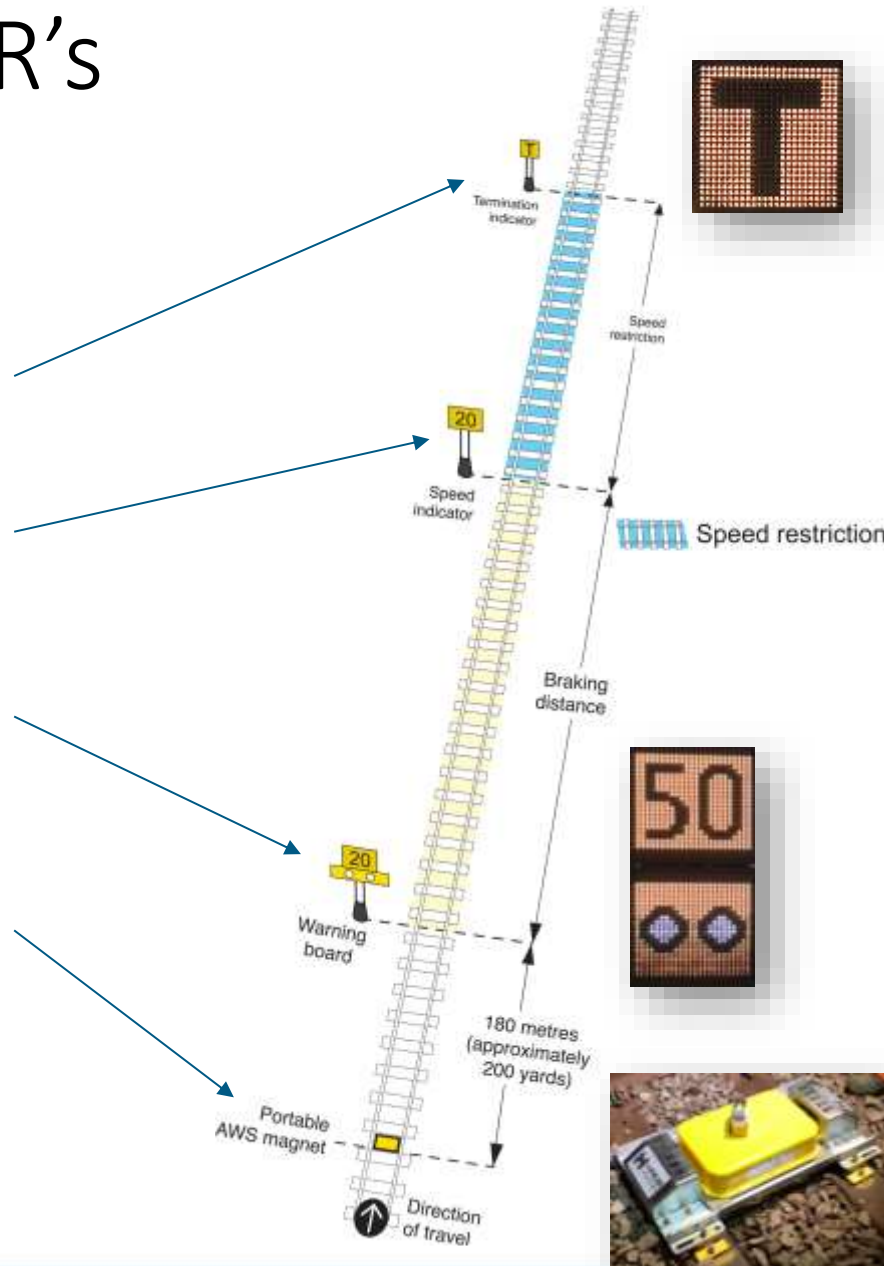
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Termination Board: Shows the end of the TSR area

Commencement Board: Shows the start of the TSR area with it's speed.

Warning Board: Shows the speed of the upcoming TSR. Speed shown with "Bullseyes" under.

AWS Magnet: Alerts the driver to the upcoming TSR via an audible alarm in the cab



Marsden Vale lines



Off Grid relocatable charger assembly (ORCA)

Industry leading – Digital TSR system

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Project Heineken- Maximise Access

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Completed
work orders



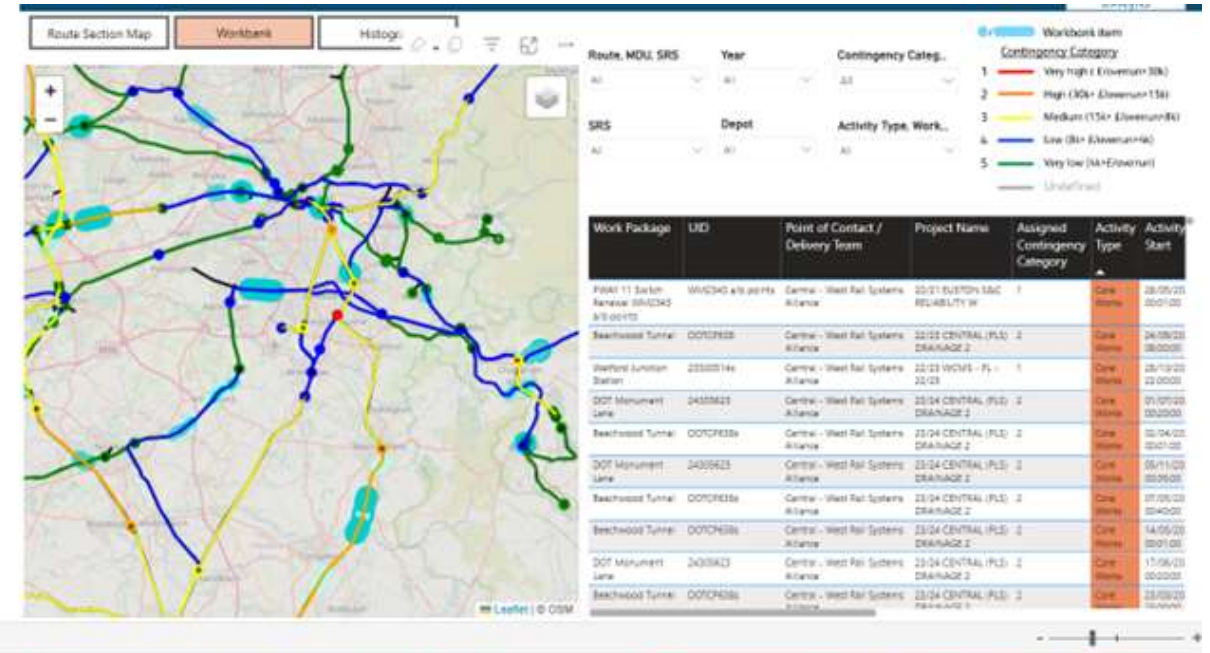
No.	Open Work Orders - Maintenance Items
1	12m x 12m bridge 12m on the 12m x 12m, 12m x 12m
2	12m x 12m bridge 12m on the 12m x 12m, 12m x 12m
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7	12m x 12m bridge 12m on the 12m x 12m, 12m x 12m
8	12m x 12m bridge 12m on the 12m x 12m, 12m x 12m

Problem:

How can we do more in the same access to drive efficiencies for the industry?

Benefits

- Reduce the need to book individual access for each disciplines
- Reduce back log of open maintenance work orders
- Maximising utilisation of resource already on site
- Reduce disruption to the train & freight operators



Open work orders

Possession data

AOB