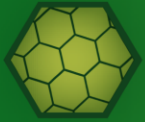


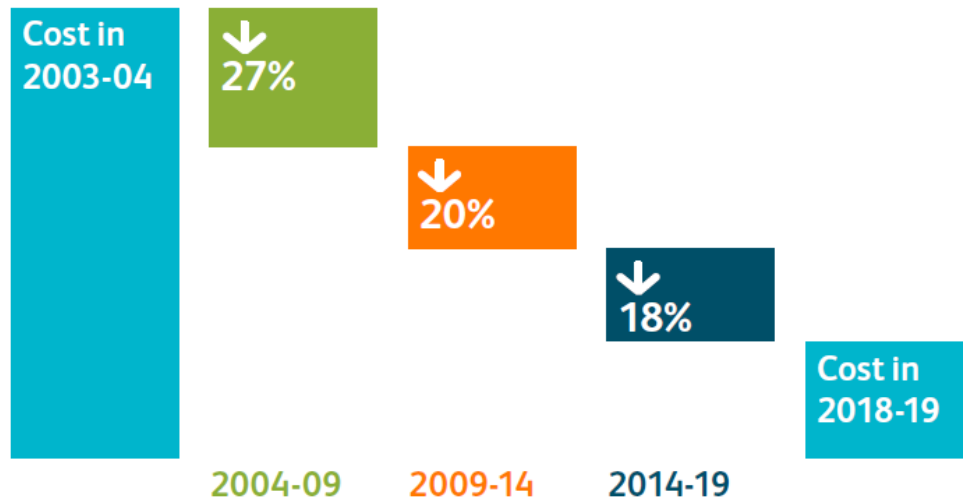
Welcome to Capacity Planning



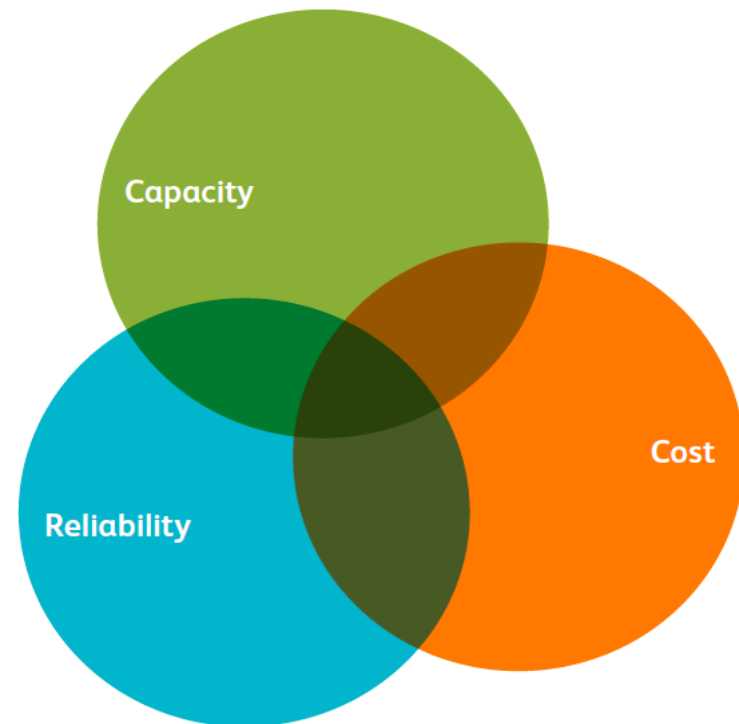


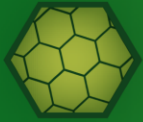
The CP5 Challenge

Investing upfront to cut day to day costs
Maintaining, operating and renewing the railway



Competing priorities





Today's reality? Perceptions?



News > Transport

London Bridge delays: 100 more timetable changes in bid to halt disruption

DICK MURRAY | Tuesday 28 April 2015 |



Flying Scotsman visit thrown into chaos by "administrative error"

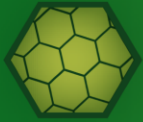


The Flying Scotsman's first visit to Scotland in 16 years has been thrown into chaos after Network Rail realised it would not fit through Dalmeny station

13 May 2016 / Helen McArdle, News Reporter / @HMcArdleHT

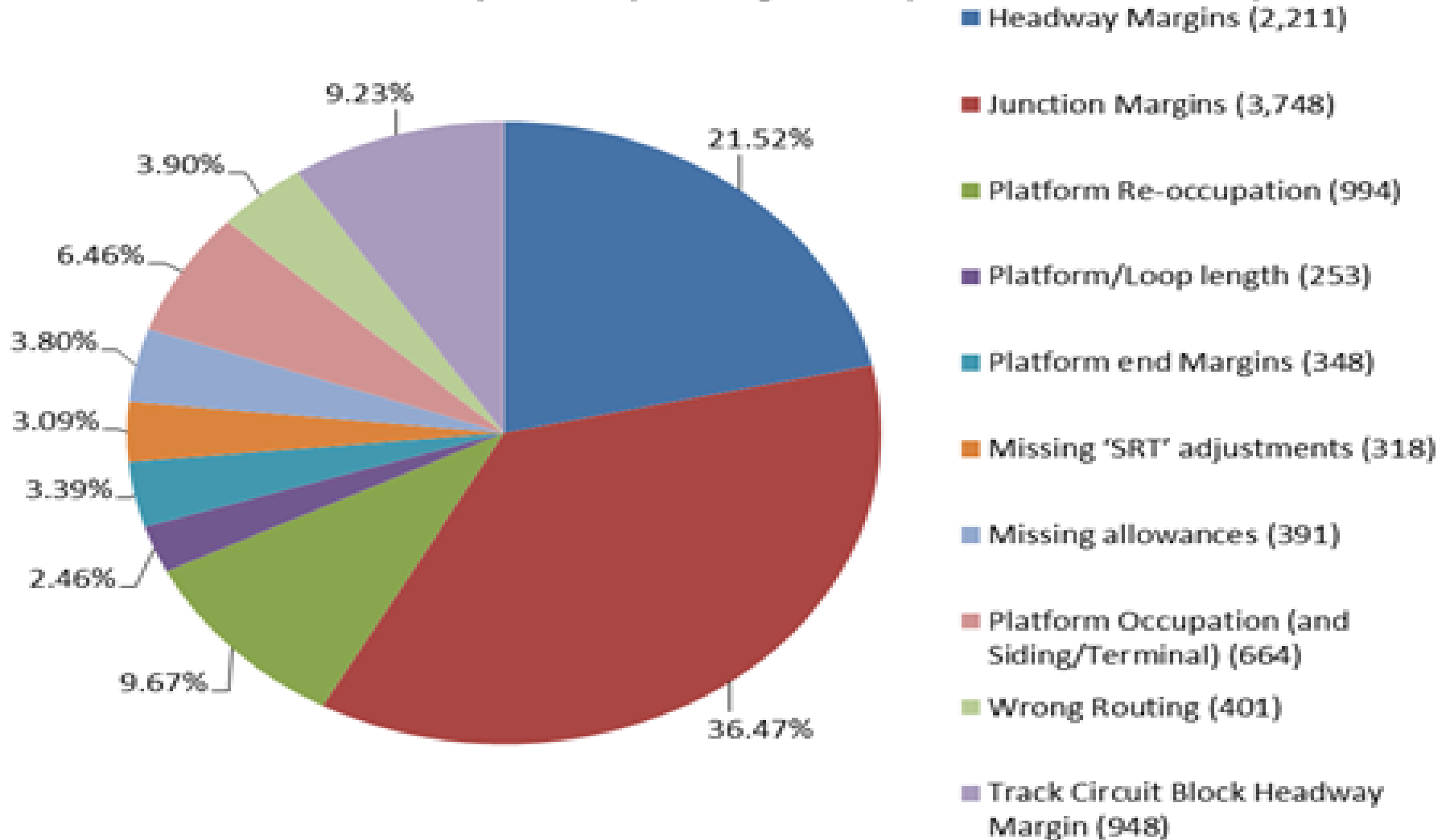
Share: 8 comments

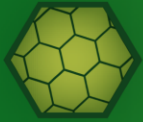




Performance challenge

Incidents caused by known planning errors (Period 1 - Period 13)



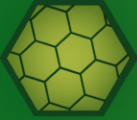


A changing environment

THE SHAW REPORT

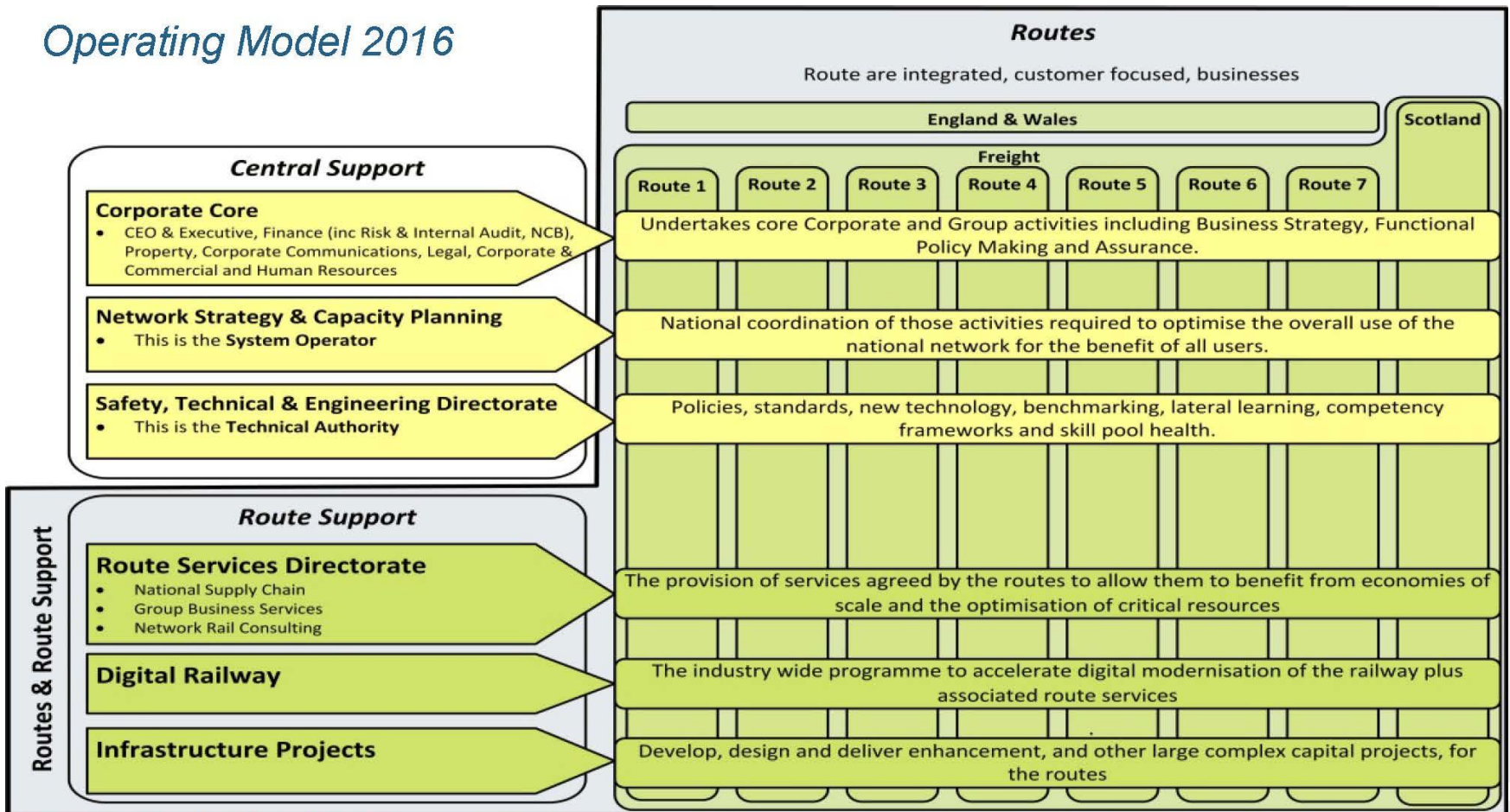
Recommendations

- Place the needs of passengers and freight shippers at the heart of rail infrastructure management
- Focus on the customer through deeper route devolution, supported by independent regulation
- Create a route for the North
- Clarify the government's role in the railway and Network Rail
- Plan the railway based on customer, passenger and freight needs
- Explore new ways of paying for growth in passengers and freight on the railway
- Develop industry-wide plans to develop skills and improve diversity

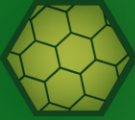


An evolving role...

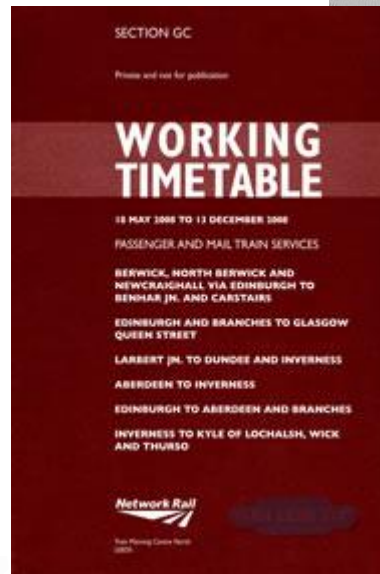
Operating Model 2016

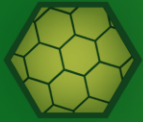


A better railway for a better Britain... better every day



Capacity Planning – Who Are We?





Leadership team...



Fiona Dolman
Capacity Planning
Director



Greg Sugden
Programme
Director



Matt Allen
Head of Capacity
Planning Controls



Rob Freeman
Head of Timetable
Production

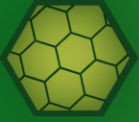


Toby Patrick-Bailey
Capacity Planning
Manager
(National)



Elaine Folwell
Capability &
Capacity Analysis
Manager





Strategic focus

- **New timetable**
- **New Service Specification**
- **New Rolling stock**
- **New TPRs**

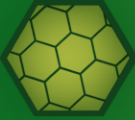


- **Existing Infrastructure**
- **New Infrastructure**
- **New Signalling**



Can we achieve

- **More Capacity**
- **Better Performance**
- **Improve Journey Times**



Massive investment

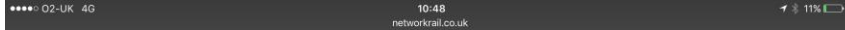
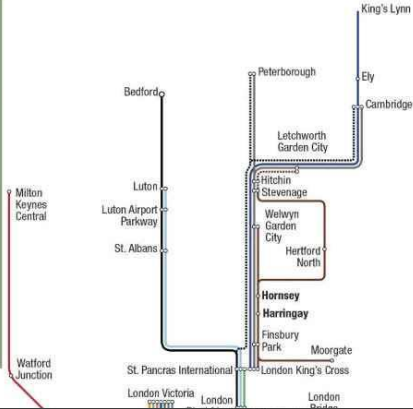


crossrail_regional_route_map_march_2014
24 May 2016, 10:38

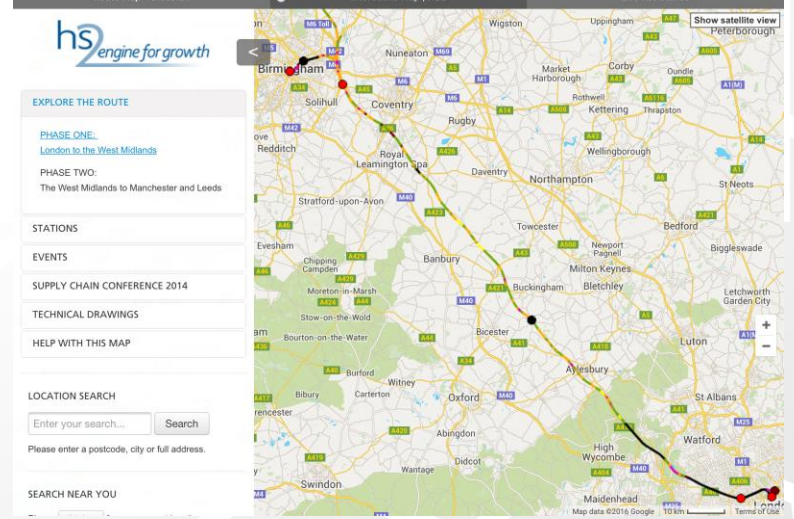
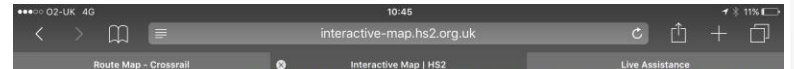


TSGN benefits:

- 50% boost in passenger capacity into central London during peak hours, 10,000 extra seats by 2018
- 8,000 jobs created as part of government's £6.5 billion Thameslink Programme
- Free wifi, enhanced staffing at over 100 stations
- 1,398 new state-of-the-art electric carriages, boosting fleet by 27%



Modernising the Great Western route



Tactical - 2016 TT Year – Late May Bank Holiday



Carstairs S&C

Gilwilly Footbridge Renewal
IP Central

Plain Line Track Renewal - Kingmoor
IP Track

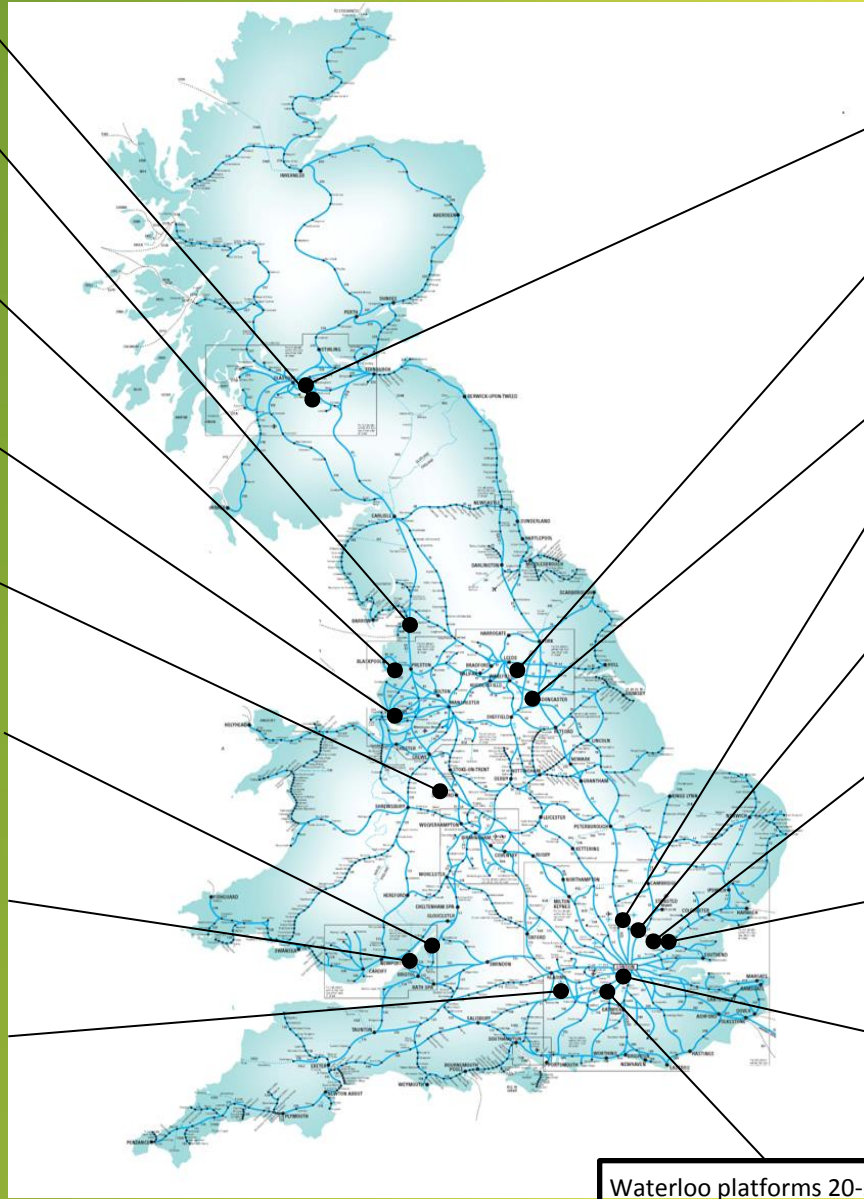
Plain Line Track Renewal – Hartmoor
IP Track

Stafford Area Improvements
IP Central

Plain Line Track Renewal – Charfield
IP Track

Bristol Area Resignalling
IP Signalling

Crossrail West
IP Great Western & Crossrail



Queen St Station / Tunnel, EGIP
(Continuation of 20 week blockade)
IP S&NE

Knottingley Level Crossing Renewal
IP S&NE

Tram-Train Project
IP S&NE

Structures Renewal, Harringay
IP Southern

Hornsey EMU Depot Connection
IP S&NE

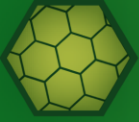
S&C Renewal – Dagenham
IP Track

Plain Line Track Renewal – Brentwood
IP Track

London Bridge
IP Thameslink

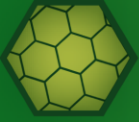
Waterloo platforms 20-24
Network Ops Works Delivery

As of 11th February 2016



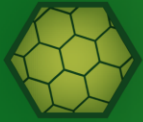
Operational Challenges of Planning Trains





Deliver a Zero Defect Timetable



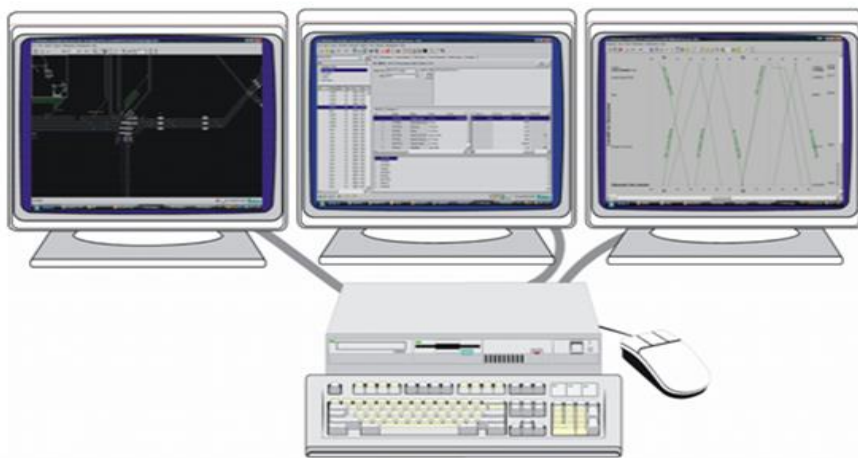


Our improvement focus

Infrastructure Editor

Schedule Editor

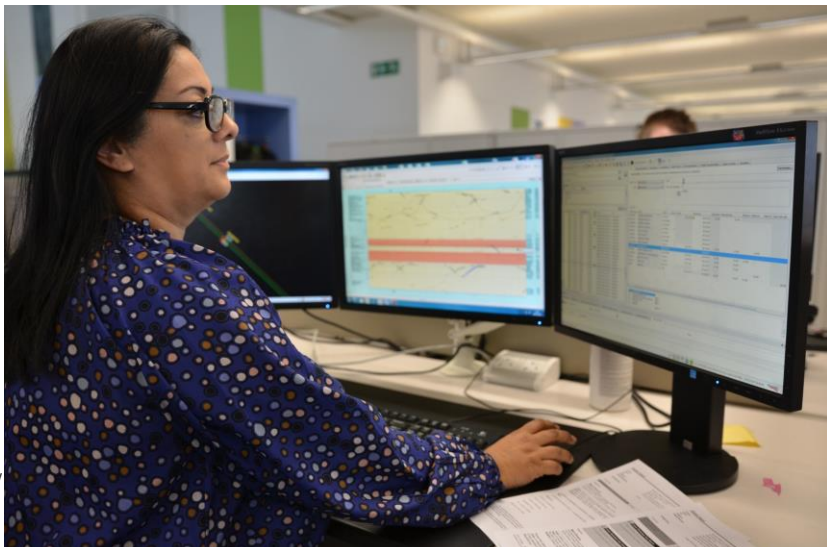
Diagrams

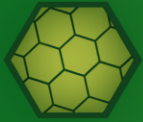


Period: 10, Week: 2
Owner: *Kiana Dorman*

Capacity Planning

No	KPI	WEEKLY			Period Performance		
		Target	Actual	Status	Target	Actual	Status
1	No. of Close Calls Raised ✓	16	7	X	16	7	X
2	% CLOSE CALLS CLOSED WITHIN THE PERIOD ✓				50	63	●
4	Thems planned list of possessions ✓	15	3	●	15	3	●
5	Number of Lost Time Safety Incidents (new) ✓	0	0	●	0	0	●
3	Number of Safety Tours (new) ✓	2	0	●	2	0	X
8	Performance no. of incidents VS Target (number) ✓	505	383	●	505	383	●
10	Performance - delay minutes (minutes)	5142	4427	●	5142	4427	✓
11	T18 Compliance (Hage)	90	75	X	90	75	X
12	T12 Validation (Hage)	95	93	X	95	93	X
13	T10 Compliance (Hage)	100	100	●	100	100	●
14	Post T12 Validation (Hage)	95	91	X	95	91	X
15	Freight day A for C validation (Hage)	95	93	X	95	93	X
19	Access disputes open more than 30 days % ✓	50	80	X			✓
16	Late Change to OTM Plans ✓	40	13	●	40	13	●
17	Late Change to Engineering Handage Plans ✓	40	15	●	40	15	●
18	Late change to M Plan Train Paths ✓	40	80	X	40	80	X
21	Development of next WTT(%, complete)	0	0	●	100	100	●
24	Completing no. of assessments complete	10	42	●	10	42	●
30	Training developmental development days (days per person)	0.25	2.1	●	1	2.1	✓
32	Labour turnover	2	1	●	2	1	✓





Supporting Zero Defect Timetable

People

Process

Technology

Continuous improvement

Digital
timetabling

TRIP

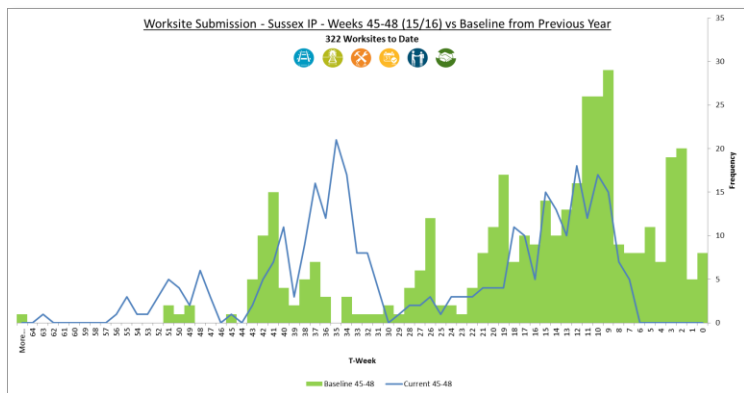
IAP

Delivering a better timetable

IAP - 4 projects available to you...



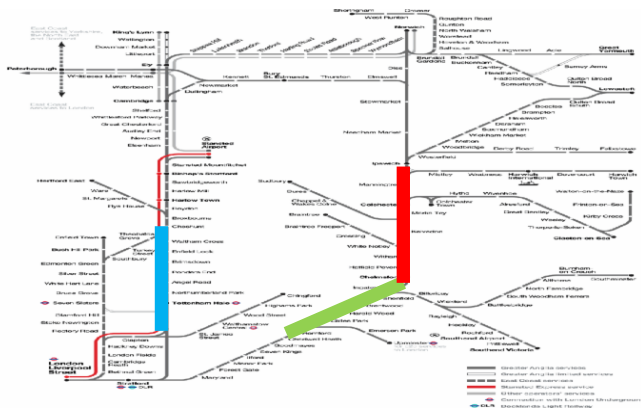
T-26 lockdown...



Engineering trains in the timetable



Better long term planning

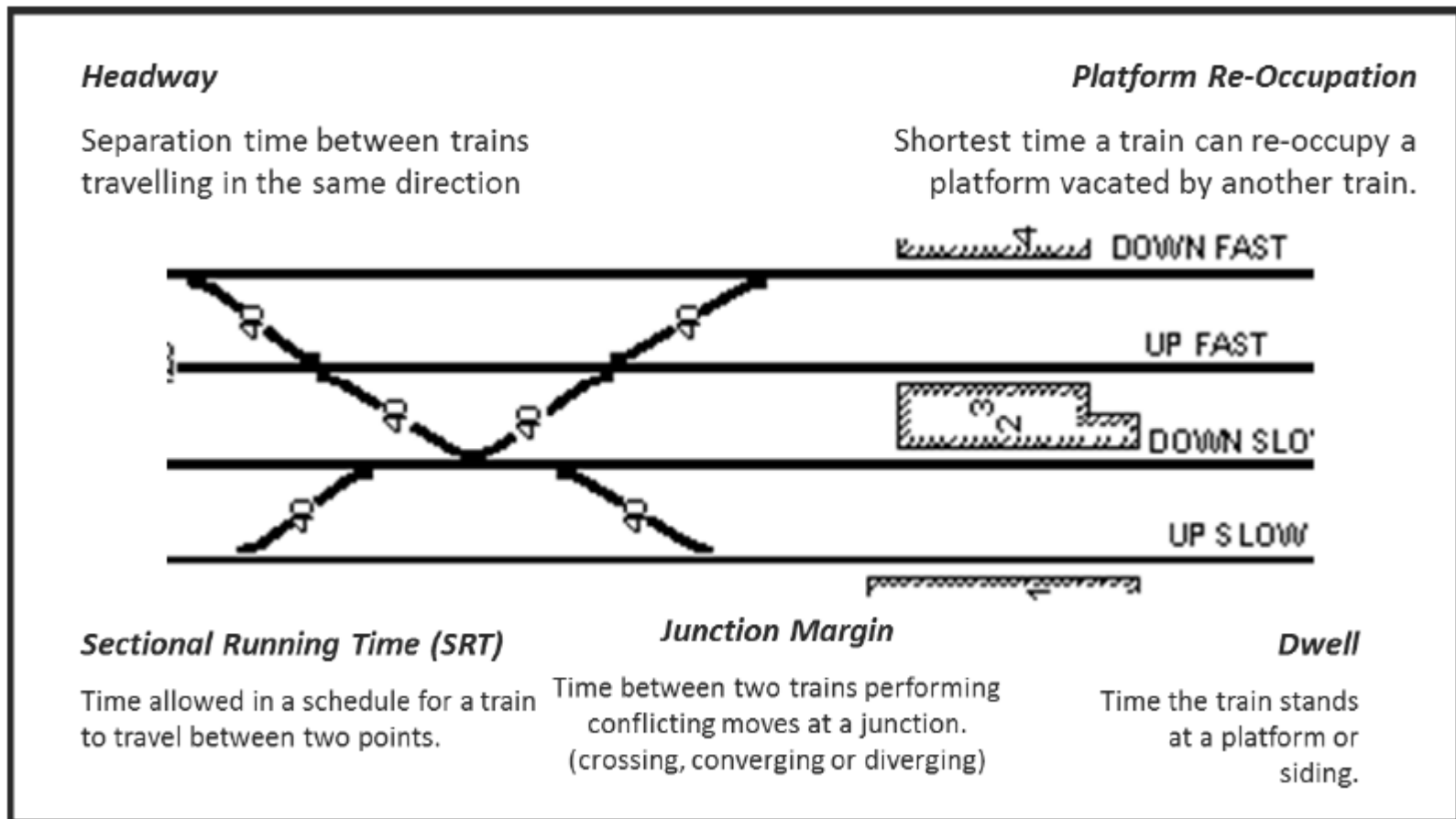


Olympic timetable



What is TRIP?

The Timetable Rules Improvement Programme (TRIP) is undertaking a systematic review of the 5 key building blocks of the timetable at key areas of the network.



TRIP areas and CP5 National PPM benefit

Type	Benefit from Dec 16	Benefit from Dec 17	Benefit from Dec 18	Total Benefit at 31 March 2019 *
Northern	0.032	0.013	0.001	0.046
Western	0.022	0.000		0.023
Wessex	0.024	0.018		0.042
Anglia	0.020			0.020
West Midland		0.104	0.000	0.104
South East		0.129	0.061	0.148
National SRT and Dwell Analytics		0.100		0.100
Annual	0.098	0.365	0.062	0.482

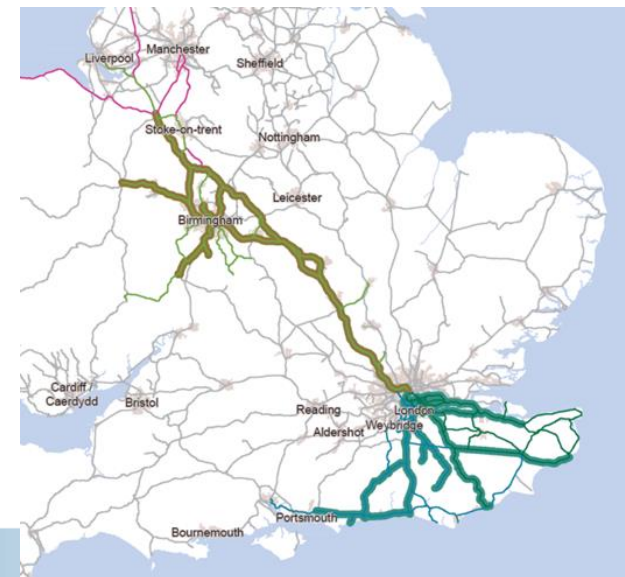
TRIP CP5 National PPM Total = 0.48%

*Total by 31st March equates to total Dec 16, & 17 benefit and 112 days of Dec 18 benefit

Wave 1



Wave 2



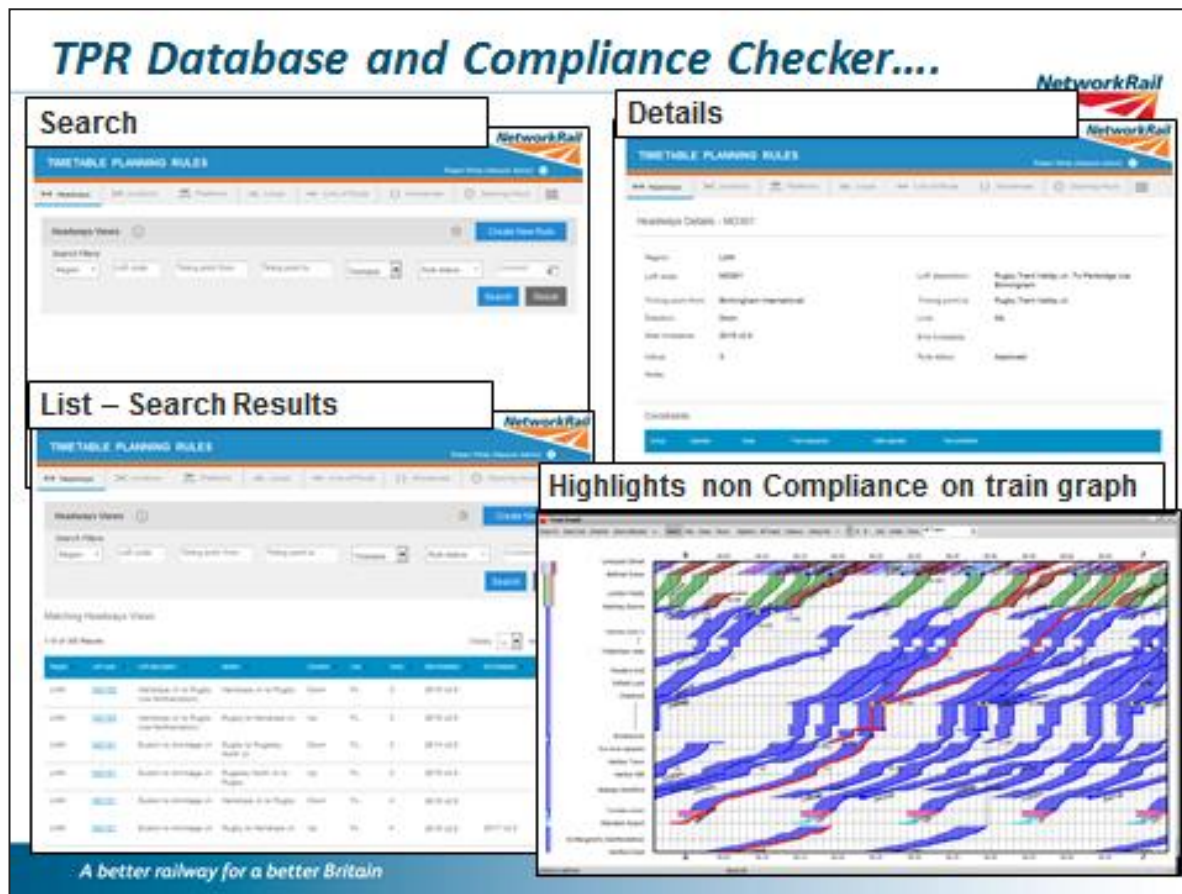
Timetable Rules Database - Compliance

1. TPR Database – A open industry access database of TPRs.

- Better change control of TPRs
- Improved visibility of change rationale
- Easier access to TPRs
- Ambiguities resolved
- Opportunity to add additional tools in the future, e.g. sensitivity analysis.

2. Timetable Compliance Tool – Effective identification of where the timetable has not be planned using live TPRs correctly.

- Facilitates the removal of these non-compliances thus reducing delays and improving customer satisfaction
- A positive move towards Zero Defect Timetable



TPR Database and Compliance Checker...

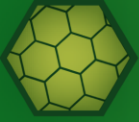
Search

Details

List - Search Results

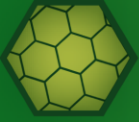
Highlights non Compliance on train graph

A better railway for a better Britain



Deliver a Zero Defect Timetable





**ANY
QUESTIONS?**