System Operator

Business Plan 2021/22

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Foreword by *Paul McMahon, Managing Director, System Operator*

As with the whole rail industry, the last year for the System Operator has been dominated by the COVID-19 pandemic. This has hugely impacted what we do, how we do it and our ability, at this stage, to plan with complete confidence for the future.

The System Operator has reacted very well to the crisis, implementing business continuity plans and stepping up to deliver for our customers including:

- Planning and implementing four timetable changes during a six-month period to reduce, and then increase the train service, as well as dealing with up to four times the normal levels of short term (week-to-week) train planning activities.
- Providing daily station passenger footfall reports, during this period, to enable regional teams to react dynamically to demand.
- Establishing a cross-industry COVID-19 demand forecasting group and working with the industry on the creation of rail passenger demand forecasts and scenarios, updating these as the pandemic unfolded.

These and other successes demonstrate the benefits of, and crucial need for, a single organisation with a focus on network-wide activity and integrity, able to work in close and constructive partnership with the regions and wider industry to deliver for passengers and freight users.

We have also continued work started in 2019/20, under the commission of Department for Transport (DfT), on the development of a Whole Industry Strategic Plan that will look over the 30 years ahead. We are engaging with stakeholders across the industry on this critical work.

A key area of focus for us over the last year has been to improve how we work with our customers, using feedback from last year's customer advocacy survey to initiate several improvement workstreams, overseen by our independently chaired Advisory Board.

During the last year we have worked to deliver our programme of strategic plans, working in partnership with our customers and stakeholders. Highlights include the Traction Decarbonisation Network Strategy and the London Rail Freight Strategy both of which were published in 2020.

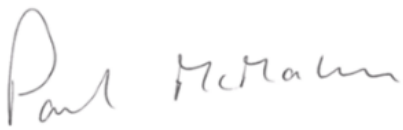
Foreword

I am also pleased with the work we have undertaken jointly with the DfT and ORR: 'Better Value Railway' to support more effective rail scheme identification and development

Our focus for the coming year is to work in partnership with the regional businesses, the DfT and other funders and stakeholders, and the wider rail industry, to:

- Continue to do our 'day job', delivering the commitments we made in our CP6 Strategic Business Plan.
- Lead work on production of robust timetables as the industry continues to respond to the challenges of COVID-19, including adapting the timetable development process to support this.
- Support effective implementation of the rail reform agenda, including the development of the Whole Industry Strategic Plan and support to DfT on new train operator contractual arrangements and train service specifications.
- Continue our work to improve the framework for capacity allocation including changes to the Sale of Access Rights, policy and processes and the Network Code.
- Continue to work with the DfT and regional businesses to support the development and delivery of the government's 'Restoring Your Railway' programme so that schemes are deliverable and cost effective.
- Improve the capabilities and processes of the System Operator function. Including the development of network integration capability.
- Deliver benefits in timetable planning technology and work towards the delivery of the Industry Timetable Technical Strategy.
- Continue working with DfT, Transport for the North, Midlands Connect, the National Infrastructure Commission and HS2 Ltd to support the development of the Integrated Rail Plan (IRP), Rail Needs Assessment, Northern Powerhouse Rail and HS2.

The System Operator will continue to be on the side of passengers and freight users, striving always to be easy to engage with - an efficient and dependable partner and an instinctive industry leader, doing our part to make Network Rail a company people are proud to work for. Our ongoing successes will continue to be supported by the collaborations we forge with our industry partners and stakeholders.



Paul McMahon
Managing Director, System Operator

1. Executive Summary

This document sets out the business plan for Network Rail's System Operator function for the financial year 2021/22, year 3 of regulatory control period 6 (CP6) which ends on the 31st March 2024.

We give an overview of our business performance for 2020/21 to date and set out our strategies and plans for 2021/22 and beyond.

In Section 3 we set out the System Operator's new operating model and how this has been implemented. We then consider the following themes in more detail:

- Customers and Stakeholders
- Delivery and activity plans
- People
- Finance
- Governance

The following Executive Summary is a seven-page overview of the rest of the document.

1. Executive summary

Network Rail's transformation journey has seen us move from a highly centralised organisation to one with devolved businesses operating within a national framework.

In 2018 a review of the organisation took place which looked at three main things:

- How to provide the best possible service for passengers and freight users
- How to ensure we deliver the promises we've made for CP6
- How to improve the way we work together and with the industry

In 2019 we started the **Putting Passengers First** programme to change the way we work – including our culture and capabilities – and deliver structural changes. Key to this transformation is real devolution to businesses with empowered leaders. This phase set up 14 new Network Rail routes across five regions, established Network Services alongside Route Services, and set up three network-wide functions – of which System Operator is one; building on the original creation of the System Operator in 2017.

The System Operator works to ensure that passengers, freight users and society benefit more from a network that's greater than the sum of its parts, examining the full spectrum of system opportunities to deliver more capacity, better timetables, longer and more trains, new technology and, where necessary, new infrastructure.

Our activities span the breadth of railway planning in terms of time horizons from short term changes to tomorrow's timetable and all the way to what the railway could look like in 30 years. Our work is underpinned by high quality technical and economic analysis so that decisions are well informed and robust.

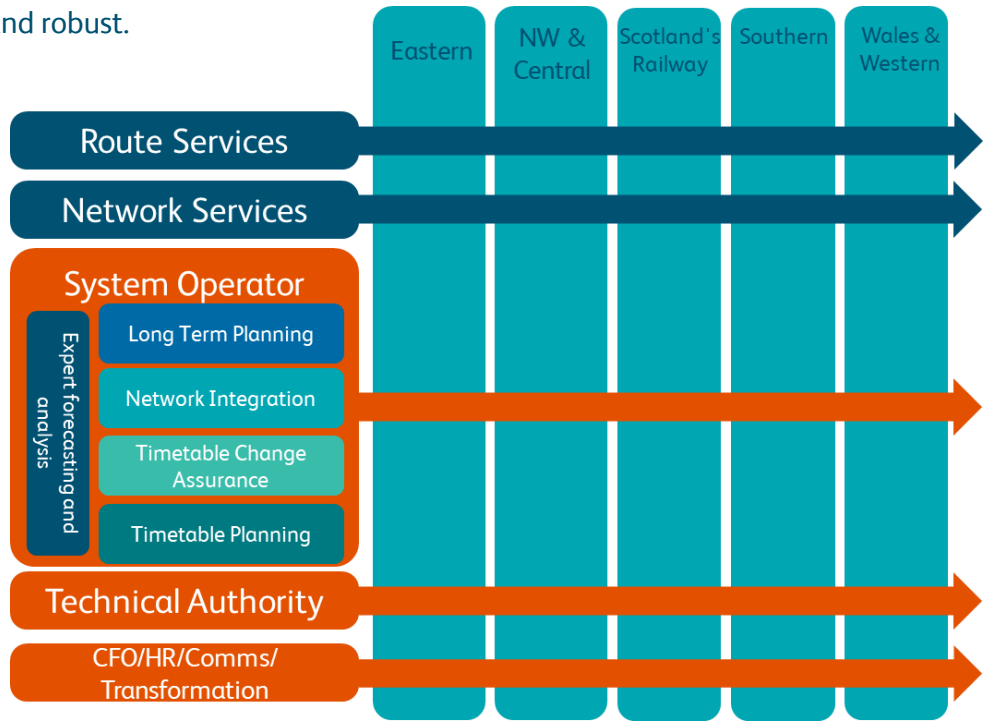


Figure 1: Network Rail's structure

1. Executive summary

The System Operator works with railway funders, operators, governments and the Regions to bring together timetables, network and industry strategies and plans that are supported by expert analysis.

Network wide benefits

System Operator is a function with a view that spans across the network, whose job it is to provide strategic oversight on behalf of the whole of the rail industry and foster partnerships in Network Rail's devolved organisation and wider industry. Sharing of knowledge across the routes, regions and with operators strengthens the business as a whole and helps to make the network greater than the sum of its parts – to the benefit of passengers and freight users.

Long-term Planning

Devolution has given the regions responsibility for their own medium and long-term planning. However, System Operator remains accountable for the strategic planning framework, profession and long-term planning at a network level. System Operator will continue to provide strategies and oversight to ensure a consistent and high quality approach is taking to long term planning. This will result in our customers getting a similar quality no matter where in the country they operate.

The Secretary of State for Transport has asked Network Rail to start work on the development of a 30 -year strategy for the railway. This strategy will inform decisions made by the Secretary of State on the funding and outputs of the railway. The Whole Industry Strategic Plan will reflect the priorities of the Secretary of the State as to how the railway can contribute to wider social, economic and environmental outcomes.

The WISP must offer options and choices to the Secretary of State reflecting the need for a strategy that is flexible, affordable, innovative and efficient, drawing on expertise from across the whole industry. A dedicated team has been established to support this work. The programme is still being agreed with the DfT in light of broader industry reform, the anticipated White Paper and the interaction with key processes such as the spending review and periodic review.

We will continue to embed the strategic planning profession in System Operator and the regions following devolution. Regular transparent engagement will continue with our regulator, customer & stakeholders to provide assurance that we are fulfilling the requirements of the network licence.

1. Executive summary

Long-term planning (continued)

During 2020/21 we have been undertaking planning at a network level, working with Department for Transport (DfT), National Infrastructure commission (NIC), Transport for the North (TfN), High Speed 2 (HS2) Ltd and Midlands Connect on the transformational train service changes and associated infrastructure schemes for HS2 Phase 2b, Midlands Engine Rail and Northern Powerhouse Rail. This planning will inform government decisions within the Integrated Rail Plan (IPR). The IRP is expected to be published by government shortly.

Following the publication by government of the IRP we will be taking forward the decisions made by the government. We will publish the associated milestones at this point. We will provide an integrated picture of how train services will be transformed for passengers and freight users facilitating the government's levelling up agenda across the midlands and the north of England.

We will lead network-wide strategy development and several strategies will be developed these include interoperability strategy, power supply planning, Traction Decarbonisation Network Strategy (TDNS) and Freight.

There are a number of deliverables planned to begin or be continued in 2021/22 these include but are not limited to;

- Continue the Better Value Rail programme – this framework will facilitate making better decisions earlier leading to improved project solutions at reduced cost in reduced timescales
- London Rail Freight land use - This strategy will carry out a comprehensive review of railway-adjacent land across the London area, with a view to the identification and safeguarding of any remaining sites with potential to be of value for future freight use

Network integration and policy

As a newly-established System Operator activity following the System Operator Transformation in 2020, our focus is on growing and establishing our capability to integrate plans for change across the railway so the network as a whole can really deliver for passengers, freight and the wider economy. As we develop our tools, and processes to do this, we'll work with industry and funders on the reform of the framework for access, lead the improvement of train service specifications, and continue to give expert advice and support on station passenger requirements, train service contracting, and track access decisions. All this we do working in close partnership with regions and across Network Rail and the wider industry.

1. Executive summary

Network integration and policy (continued)

There are a number of deliverables planned to begin or be continued in 2021/22 these include but are not limited to;

- Establishing a new network integration framework and supporting capability
- Developing a blueprint that defines the future configuration of the network and its outputs and the underpinning processes to sustain value-adding support and advice to Executive Leadership Team, Regions, funders and governments.

Timetable change assurance

Industry Timetable Assurance is managed by the Industry Programme Management Office (PMO) and overseen by the PMO Steering Group, comprising senior representatives from train and freight operators, owning groups and Network Rail. The primary objective of the team is to enable changes to train services to be implemented successfully, delivering a reliable service for passengers and freight users, and an efficient operation for funders. The PMO acts independently to provide challenge, peer review, and be the 'critical friend' of all parties in the timetable development process, including Network Rail. This independence provides the safeguard that funders and service specifiers need to be satisfied that timetable changes will deliver the expected outcomes.

Preparations for each timetable change are assessed for risk, and monitored through to implementation. The past year saw the successful implementation of six major timetable changes in response to the COVID pandemic, with development timescales measured in weeks rather than months. In the coming year, the focus will be to take the lessons learned in 2020, to build a more agile and responsive timetable process whilst continuing to deliver reliable and efficient services.

There are a number of deliverables planned to begin or be continued in 2021/22 these include but are not limited to;

- Own and direct the robust and collaborative industry-wide risk and assurance framework for timetable change
- Continue to deliver industry-wide, independent assurance assessments for the timetable changes

1. Executive summary

Timetable Planning

Capacity Planning is responsible for producing high quality timetables to meet the needs of customers, funders, passengers and freight-user. During 2020 the team have moved to an agile Production model, delivering five major Timetable changes in 2020 (2020/21): March, May, July, September, December; instead of the usual two and processing much higher levels of Short Term Plan (STP) change. In 2021/22 a more agile approach will again be delivered with 4 fixed change dates agreed with the industry.

The impact of the pandemic has led to the Informed Traveller publication process being temporarily withdrawn as funders have required much shorter timescales to make decisions on service specification. The Capacity Planning team will work with funders, operators and the ORR to make sure the right balance is struck throughout 2021/22 between advance publication of Informed Traveller timetables and the ongoing flexibility in later decision making that funders seek.

During 2020 the Capacity Planning team completed the introduction of a dedicated Timetable Performance modelling team and dedicated advance timetabling teams to support Event Steering Groups (ESGs).

These new capabilities will be deployed throughout 2021/22 to support the production of better structured and more reliable timetables – in line with our SBP targets to reduce the level of timetable driven delay.

Prior to the pandemic the System Operator started work on timetable process reform, including a move to a more permanent agile model but also with greater resource placed upfront in the development process to support funders and Regions in timetabling specification decisions . During 2021/22, the System Operator will work with the industry to formalise these plans within industry processes for the long term.

There are a number of deliverables planned to begin or be continued in 2021/22 these include but are not limited to;

- Continue to deliver the agreed timetable changes on time and to the volume required
- Deliver quantifiable improvements to the network performance through establishing targets for the reduction of timetable caused delay incidents

1. Executive summary

Analysis and Forecasting

We work with our partners and stakeholders to enable them to make value for money decisions to give the best outcomes for the industry's customers – passengers, freight users and the travelling public – and taxpayers.

We do this by providing expert advice about future passenger and freight demand on the network, and applying transport appraisal expertise to balance decisions around industry costs, revenues and socioeconomic benefits to end users.

There are a number of deliverables planned to begin or be continued in 2021/22 these include but are not limited to;

- Input into business case development for enhancement decisions by providing evidence based advice and analysis
- Continue to lead on industry COVID-19 demand forecasting which includes analysing current and forecasted passenger numbers

Finance

Our financial plan for 2021/22, included below, identifies an efficient expenditure requirement totalling £50.3m operating expenditure and £19.5m capital expenditure. The plan has been developed using resource plans for each team based on the forecast workload for that team, and we are confident that this represents a robust yet deliverable plan.

Summary of Financials for Control Period 6 (CP6) in £m

Activity/team	19/20*	20/21*	21/22	22/23	23/24	CP6 total
Operational Expenditure (£m)	38.6	37.5	50.3	48.8	51.2	**226.5**
Capital expenditure (£m)	7.6	13.7	19.5	27.9	27.6	**96.3**

**Note: 19/20 financial year figures are actuals, 20/21 figures are actuals to period 10 with periods 11-13 forecast*

1. Executive summary

How we will measure success

Network Rail uses a scorecard approach to set its expected outcomes and to measure success. The 2021/22 scorecard presented at the end of this section has been created with consideration for our customers and stakeholders. The Putting passengers first programme enables us to align our measures to maximising customer satisfaction. The measures all can be categorised under the umbrella of Network Rail's vision;

System Operator scorecard 2021/22

		Yr1 Actuals	Yr2 Forecast	Yr3 Forecast	Yr4 Forecast	Yr5 Forecast	CP6 Forecast
ON THE SIDE OF PASSENGERS AND FREIGHT USERS		**19/20**	**20/21**	**21/22**	**22/23**	**23/24**	**Achievability**
Impact on train performance (delay incidents)	**Current Forecast**	20601	25285	22,273	TBC	TBC	
	Last Year's Plan	22957	22613	22273	19838	TBC	
WTT Production Milestones	**Current Forecast**	4	3				
	Last Year's Plan	4	4				
TW12 Compliance	**Current Forecast**	96%	20%				
	Last Year's Plan	90%	90%				
Financial Performance OPEX £m	**Current Forecast**	-2.82	0	19.5	TBC	TBC	
	Last Year's Plan	0	0	0	19.5	TBC	
Financial Performance CAPEX £m	**Current Forecast**	-0.52	0	19.5	TBC	TBC	
	Last Year's Plan	0	0	0	19.5	TBC	
Whole Industry Strategic Planning (milestone delivery)	**Current Forecast**	93%	100%				
	Last Year's Plan	80%	90%				
Strategic Planning	**Current Forecast**	93%	94%				
	Last Year's Plan	80%	90%				
Timetable Milestones	**Current Forecast**	N/A	85%	90%	TBC	TBC	
	Last Year's Plan	N/A	N/A	N/A	90%	TBC	
EASY TO ENGAGE WITH, EFFICIENT AND DEPENDABLE PARTNER		**19/20**	**2021**	**2122**	**2223**	**2324**	**Achievability**
Capacity Allocation - Access rights framework	**Current Forecast**		100%				
	Last Year's Plan		90%				
Long term Network Strategy	**Current Forecast**		3.40				
	Last Year's Plan		3.40				
System Output Integration	**Current Forecast**		3.22				
	Last Year's Plan		3.22				
Capacity Allocation	**Current Forecast**		2.93				
	Last Year's Plan		2.93				
Timetable Development	**Current Forecast**	2.96	2.96				
	Last Year's Plan	2.93	2.96				
Customer Advocacy Action Plan Milestones	**Current Forecast**	N/A	N/A	90%	TBC	TBC	
	Last Year's Plan	N/A	N/A	N/A	90%	TBC	
PROUD TO WORK FOR NETWORK RAIL		**19/20**	**2021**	**2122**	**2223**	**2324**	**Achievability**
Workforce diversity (gender)	**Current Forecast**		38%				
	Last Year's Plan		37%				
Work related absence	**Current Forecast**		21				
	Last Year's Plan		45				
Diversity & Inclusion - Female Headcount	**Current Forecast**	N/A	N/A	44%	TBC	TBC	
	Last Year's Plan	N/A	N/A	N/A	44%	TBC	
Diversity & Inclusion - Ethnicity Headcount	**Current Forecast**	N/A	N/A	15%	TBC	TBC	
	Last Year's Plan	N/A	N/A	N/A	15%	TBC	
Your Voice Action Plan Milestones	**Current Forecast**	N/A	N/A	TBC	TBC	TBC	
	Last Year's Plan	N/A	N/A	N/A	TBC	TBC	
Mental Wellbeing Training	**Current Forecast**	N/A	N/A	90%	TBC	TBC	
	Last Year's Plan	N/A	N/A	N/A	90%	TBC	
INSTINCTIVE INDUSTRY LEADER		**19/20**	**2021**	**2122**	**2223**	**2324**	**Achievability**
Industry Timetable Assurance -PMO Milestones	**Current Forecast**	93%	90%				
	Last Year's Plan	90%	90%				
Rail Integration Milestones	**Current Forecast**		100%				
	Last Year's Plan		95%				
Rail Development Milestones	**Current Forecast**		100%				
	Last Year's Plan		95%				
Industry Timetable Technical Strategy Delivery Milestones	**Current Forecast**	N/A	N/A	90%	TBC	TBC	
	Last Year's Plan	N/A	N/A	N/A	90%	TBC	
Network Integration & Policy Delivery Milestones	**Current Forecast**	N/A	N/A	90%	TBC	TBC	
	Last Year's Plan	N/A	N/A	N/A	90%	TBC	
Strategic Planning Milestones	**Current Forecast**	N/A	N/A	90%	TBC	TBC	
	Last Year's Plan	N/A	N/A	N/A	90%	TBC	

Note: this Business Plan does not take account of the organisational changes announced on 20 January 2021 which will be incorporated in a later revision.

These targets represent our strategic plans. We continue to refine our annual targets to reflect changing circumstances so they are appropriately challenging.

2. Introduction

This Business Plan sets out what the System Operator plans to deliver throughout Control Period 6 (CP6), with a focus on delivery within 2021/22. Our primary concern has been and will continue to be the safety and wellbeing of our people whether they are working from home or in a COVID-19 secure office space. 2020/21 was certainly a testament to the flexibility, adaptability and dedication of our teams within the System Operator.

This plan also outlines the development of the programmes and initiatives System Operator has worked on over the past year including our delivery and activity plans. It explains how our new purpose to *make the railway more than the sum of its parts* and new operating model will drive value creation, to the benefit of passengers and freight users.

Our plan sets out our key functional objectives and proposed key performance indicators. We continue to strive to meet the needs of our customers and stakeholders, including developing improvement plans initiated from the results of the annual customer advocacy survey. This, coupled with the people plan, will drive continual improvement within System Operator and the service we provide.

2. Introduction

The changes we have made to the System Operator purpose, operating model and organisation through our transformation during 2020/21 enable the Network Rail regions to each be accountable for their future through development of their own strategic plans, as well as taking on programme integration for HS2 and East West Rail. This will allow them to develop closer and stronger relationships with the funders, customers and transport planners who have the greatest stake in their railway, providing an improvement for passengers and freight users and supporting delivery of Network Rail's vision:

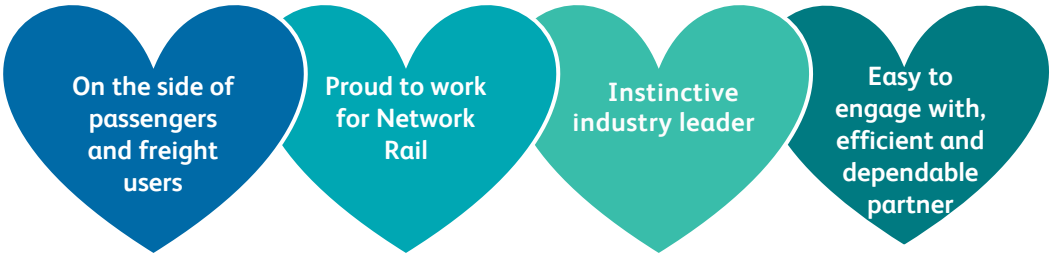


Figure 2: Network Rail's vision

Our people are our greatest asset and throughout the year we continue to build on the foundation of our commitment to them, increasing opportunities to develop and contribute to sustainable change. Our People Plan sets out how we aim to achieve Network Rail's key outcomes for investing in our people.

2021/22 holds more uncertainty, not only in our working practices but also in the longer term challenges that the railway faces as patterns of passenger demand shift. Our plan, laid out in the following sections, positions us well to respond to these challenges but will also require us to be nimble and agile as the world around us continues to evolve and change.

Note: this Business Plan does not take account of the organisational changes announced on 20 January 2021 which will be incorporated in a later revision.

3. System Operator

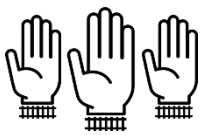
The railway system drives economic growth. It transports people to and from work, education and leisure activities and it carries goods to markets, connecting businesses. Before the COVID-19 pandemic, many parts of the network were at or approaching full capacity, and with demand for rail expected to grow further over the coming years, capacity had become an increasingly valuable and in-demand commodity. Consequently, getting best use of track and station capacity today and expanding the capacity of the system for the future – while pursuing affordability and delivering value for money – is a key challenge for the rail industry, and the country.

However, the effect of significantly reduced rail passenger numbers during the pandemic along with the possibility of a more sustained reduction due to changes to working patterns into the longer term could lead to differing requirements on the railway such as less demand for capacity boosting schemes and the opportunity to promote more connectivity schemes. The impact of these reductions in industry revenues and therefore funding for Network Rail is as yet unknown and unquantifiable, although our demand forecasting team is working closely with DfT and the wider industry to understand this better and develop planning scenarios.

3.1. Our Purpose

Our new purpose, launched in 2020/21 as part of our transformation, is:

> **To make the network more than the sum of its parts**



Working with … *the funders and operators of the railway, including governments, regions and train operators*

We … *bring together timetables, network and industry strategies and plans underpinned by expert analysis*

In a way that's … *collaborative, pragmatic, evidence-based and built on sound knowledge and capability*

In order that … *passengers, freight users and society benefit more from a network that's greater than the sum of its parts*

3.1. Our Purpose

It is the System Operator's new purpose to make the railway more than the sum of its parts by working in partnership with the regional teams and wider industry to ensure the integrity of the network. We provide a whole-system, long-term view, informed by the detailed knowledge we have from planning and timetabling the network and from the industry-wide interfaces we have with every train operating customer, region and infrastructure manager, enabling the industry to deliver for passengers and freight users.

The implementation of several cross-route or -region programmes such as Thameslink, Crossrail, HS2 and East-West Rail, link the routes that comprise the network more than ever. The need to radically rethink the future use of the railway to accommodate changing passenger and freight user needs, fundamental to the decarbonisation of transport and building back a stronger, greener economy, further reinforces the "network" nature of the railway system. This means that the importance of the activities of a System Operator will continue to grow, for example, in the integration of system changes across the network.

We assess and present options to decision-makers for how to achieve their aspirations for train service outcomes. This enables timely and evidence-based decisions to be taken which maximise benefits to passengers, freight users and the tax-payer.

There have been several key changes over the past twelve months impacting the environment in which the System Operator exists. These include a new Managing Director, changes implemented as part of the Putting Passengers First programme and a new governance structure. The ongoing industry reform agenda is likely to result in further changes for our organisation so continued collaboration and transparency with our stakeholders throughout the next year will be essential.

Although the landscape in which we operate remains changeable, Network Rail's operating model retains the System Operator with a clear role both internally, working with our new regional businesses, and across the rail industry as a whole in delivering a number of fundamental cross-industry, cross-system and cross-network functions. An example of this role in practice is realised through the development network-wide strategies such as for traction decarbonisation.

3.2 Our role in system safety

Safety is at the heart of everything we do

As well as supporting the health, safety and wellbeing of our team, as System Operator we have a unique opportunity to drive improvements in system safety throughout the processes described in our operational model, through the quality of our work and the advice we provide to decision makers.

We make a vital contribution to railway system safety by embedding safety consideration into our planning framework. In addition, we make specific contributions through activities such as station capacity analysis, undertaken by a team which sits with the System Operator and analyses the movements of passengers in and around stations, informing project development decisions.

We influence system safety through the frameworks and support we provide our route and region colleagues in the implementation of timetable change, as well as through the development of a safe and robust network-wide timetable.

3.3 Our organisational structure

System Operator Transformation Programme

The railway industry has changed and will continue to do so for the foreseeable future. The creation of the regional businesses, strengthened by the PPF programme, the emerging industry reform impact, including the development of the Whole Industry Strategic Plan, and the cross-industry response to the COVID-19 pandemic have been, and are, all drivers for change.

In response to these changes and, importantly, feedback from our customers that the way System Operator works is sometimes difficult to understand, and that our operating model was overly complex, we revisited our role and purpose and how we describe these things.

In June 2020 the Network Rail Executive Leadership Team, and subsequently the System Operator Advisory Board, endorsed a revised purpose and operating model along with a proposal to devolve accountability for regional strategic planning and programme integration to the regions.

These organisational changes and our new purpose and operating model were implemented on 12 October 2020.

3.3 Our organisational structure

The changes to the System Operator operating model and organisation mean that the regions are now each accountable for their future through development of their own strategic plans, as well as taking on programme integration for HS2 and East West Rail. This will enable the regions to develop closer and stronger relationships with the funders, customers and transport planners who have the greatest stake in their railway, ultimately providing an improvement for passengers and freight users and supporting delivery of Network Rail's vision – making our people proud to be part of the business.

The System Operator team will continue to work in partnership with the regional teams to join up and de-conflict regional strategies to ensure they fit together as a coherent whole.

For example:

- Where regional strategies contribute to an improvement across the whole railway such as regional decarbonisation strategies supporting delivery of net zero carbon across the network.
- Where cross- or multi-regional plans for use of capacity could be misaligned such as long-distance, commuter and freight services all operating on the same part of the network.

This joined-up approach to network level strategic planning and integration is essential for maintaining and optimising network integrity.

The System Operator will also develop network and industry strategies such as TDNS (Traction Decarbonisation Network Strategy) and the WISP (Whole Industry Strategic Plan) , working with the regions, the wider rail industry and across government as appropriate whilst sharing best practice. This will be done working closely with the ongoing rail reform workstreams and builds on existing cross-government arm's-length body working groups.

In parallel with the delivery of these changes we have updated the System Operator operating model as set out in section 3.4.

To support and enable the new operating model a number of changes have been made to the top line System Operator organisation, the changes are summarised in figure 3. This structure went live on 31 December 2020 and will continue to embed throughout 2021/22, it marks the final major changed planned as part of the System Operator transformation programme 2020.

At the time of writing, the changes to Network Rail announced on 20 January, including the dissolution of Network Services, are being worked through and are not included in this plan.

3.3 Our organisational structure

Graham Botham
Strategy & Planning Director (IRP)

Helen McAllister
Strategy & Planning Director (Network)

Michelle Barber
Personal Assistant

Michael Murphy
Finance Director

Calvin Lloyd
Strategy & Planning Director (WISP)

Paul McMahon
Managing Director

Rupert Walker
Planning & Delivery Director

Chris Curtis
Industry TT Change Assurance Director

David Harding
Head of Analysis & Economics

Michelle Croft
Head of Human Resources

Neil Kirkwood
Director, Network Integration & Policy

Chris Rowley
Capacity Planning Director

Figure 3: System Operator Leadership Team

3.4 Our operating model & governance

Following the changes described in Section 3.1, we have focussed on evolving and developing our Operating Model. The revised model underpins the purpose of System Operator – ***making the railway more than the sum of its parts.***

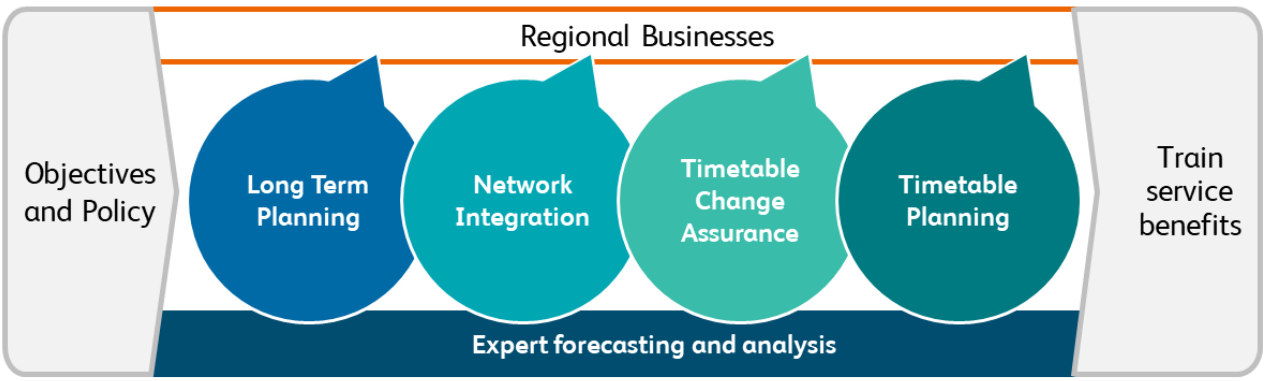


Figure 4: System Operator 's new operating model

Through the new GRAI business framework (Governance, Risk, Assurance and Improvement Plans) the System Operator owns two of Network Rail's core business processes, at either end of the train service delivery process illustrated in our operating model:

- Long-Term Planning
- Timetable Planning.

These core business processes are joined up through two more activities: 'Network Integration' and 'Timetable Change Assurance', all four of our activities are underpinned by the 'Expert Forecasting and Analysis' activity. Together, these five activities work to ensure network integrity - a unified and robust rail network. We want to use our new model to clearly demonstrate that all of our accountabilities add value to passengers and freight users and help us work effectively with the regional teams.

3.4 Our operating model and governance

The core blocks of our new operating model explained

Network Integration –

Integrating the whole railway means identifying and highlighting gaps, conflicts and risks between the five key elements of the railway system, these are:

- The Timetable
- The Operations needed to make the timetable work
- The Rolling Stock used
- The Infrastructure
- The Contractual and Regulatory Framework

This work, done in partnership with the regions, supports the successful development and delivery of joined up programmes across regions. It also gives funders and stakeholders clear visibility of the choices and opportunities they have available to them.

Timetable Change Assurance –

Established following the May 2018 timetable incident; the Industry Programme Management Office (PMO) is there to provide confidence that timetable changes will be delivered effectively for passengers and freight users in the run up to each change. It does this through a process called 'timetable change assurance activity' which builds on outputs from Network Integration activity.

Timetable Planning –

Working in collaboration with the regions and the wider industry we deliver the railway timetable.
The Capacity Planning team works to make the best use of the railway network by co-ordinating, validating, de-conflicting and finally, publishing the national timetable.
The team also provides advance timetabling and timetable performance modelling capabilities for industry partners.
Delivers Timetable Performance Modelling

Long-term Planning –

The System Operator's long-term planning activity delivers network and industry strategies and provides advice for the rail industry. We work in partnership with regions, funders and stakeholders to identify and offer choices and plans to meet their objectives which together strengthens the development of an integrated railway.

Expert Forecasting and Analysis –

All of our work is underpinned by our expertise in forecasting and analysis. We provide station and network capacity and economic analysis to provide evidence bases for strategies and choices. Building a strong professional capability in this area supports the development and delivery of an efficient, and ever more integrated future railway.

3.5 System Operator Scorecard

3.5.1 Scorecard Performance 2020/21(P01-P10)

Successful delivery of our scorecard this year has been challenging due to the emergence of the COVID-19 global pandemic and its impact on the rail industry. Despite this, delivery of the vast majority of our measures within our scorecard are in a good position, for example:

• Workforce diversity, a measure of gender balance in the team is forecast to finish the year over target at 38 %

•Financial performance is forecast to finish the year better than target.

However, the impact of the COVID-19 global pandemic on our scorecard is clearly reflected by the Capacity Planning function being **18%** over target for incidents affecting train timetable performance because of the need for multiple rewrites of the timetable since the start of the pandemic, to reduce and then increase the train service, with an end of year forecast of being **10%** over target The main driver of the over target score has been the need to reduce time spent by the team on timetable quality in order to process the increased volume of short term change.

A snapshot of our scorecard updated for 2020/21 (based on Period 10), showing year to date performance, is shown in below.

System Operator Scorecard

Scorecard Performance 2020/21(P01-P10)

System Operator *MD:* *Paul McMahon* *FY Period:* *20/21* *10*

Timetable performance	Weighting		WORSE	TARGET	BETTER	PERIOD Actual vs. Planned	YTD		FYF	ACHIEVEMENT
Impact on train performance *(delay incidents)*	10%	10.0%	23,744	22,613	21,482	1,428/1,901	19,564	↑	25,285	0%
Delivering an Improved timetable service	**Weighting**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**
WTT production milestones	30%	15.0%	2	3	4	0/0	2	↔	3	100%
Informed Traveller Recovery		15.0%	75%	85%	95%	93%/85%	97%	↓	91%	80%
Industry Timetable Assurance	**Weighting**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**
PMO Milestones *(TBC)*	5%	5.0%	80%	90%	100%	0/0	0%	↔	90%	50%
Capacity Allocation	**Weighting**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**
Access Rights Framework	5%	5.0%	80%	90%	100%	0/0	100%	↔	100%	100%
Customer advocacy	**Weighting**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**
Long Term Network Strategy	10%	2.50%	3.08	3.40	3.71	0.00	0.00	↔	0.00	0%
System Output Integration		2.50%	2.91	3.22	3.55	0.00	0.00	↔	0.00	0%
Capacity Allocation		2.50%	2.61	2.93	3.25	0.00	0.00	↔	0.00	0%
Timetable Development		2.50%	2.66	2.96	3.30	0.00	0.00	↔	0.00	0%
Finance	**Weighting**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Var Actual vs. Planned**	**YTD (var)**		**FYF (var)**	**ACHIEVEMENT**
Financial performance measure – opex (£m) *(variance)*	5%	2.5%	-1.57	0.00	1.57	0.20/0.00	4.85	↓	0.00	50%
Financial performance measure – capex (£m) *(variance)*		2.5%	-1.06	0.00	1.06	0.63/0.00	2.63	↑	0.00	50%
People Measure	**Weighting**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**
Workforce Diversity (gender)	5.0%	5.0%	36%	37%	38%	40%/39%	38%	↑	38%	100%
Safety	**Weighting**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**
Work Related Absence *(work related absence incidents - total)*	5.0%	5.0%	50	45	40	0/3	8	↑	21	100%
Long Term Planning	**Weighting**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**
Whole Industry Strategic Planning (annual plan - milestone delivery)	15%	7.5%	80%	90%	100%	0/0	0%	↔	0%	0%
Strategic Planning *(annual plan - milestone delivery)*		7.5%	80%	90%	100%	0/0	94%	↓	94%	71%
Network Integration	**Weighting**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**
Rail Integration Milestones *(funded project development milestones achieved)*	10%	5.0%	90%	95%	100%	0/0	100%	↔	100%	100%
Rail Development Milestones *(funded project development milestones achieved)*		5.0%	90%	95%	100%	0/0	0%	↔	100%	100%
		100.0%							*Weighting*	*62.29%*

3.5 System Operator Scorecard

3.5.2 Scorecard 2021/22

The content for the 2021/22 scorecard is complete and demonstrates a clear focus on:

- Ensuring we are committed to successfully and efficiently delivering high quality, risk assured timetables within agreed timescales.

- Ensuring we are an easy to engage with, efficient and dependable partner through building on feedback received through our Customer Advocacy survey

- Ensuring every employee understands the role they play in delivering the Network Rail Story through effective use of the Your Voice survey results, and continuing to mature focus on health & wellbeing throughout our organisation

- Demonstrating we are an instinctive industry leader through fully embedding our new Operating Model and effective engagement with regional businesses.

Our 2021/22 scorecard contains realistic yet challenging targets, some of which will be realised within the financial year and others will be achieved over the longer term throughout CP6.

The structure of our 21/22 scorecard can be visualised in our Long Term Scorecard, shown in Appendix B.

4. Meeting the needs of our customers and stakeholders

Our customers include all funders of the railway, rail infrastructure businesses (including the regions) and operators running trains on the network – all of whom depend on us to establish and maintain an efficient and effective process for managing the allocation of capacity on the Network. Undertaking our responsibilities in an informed, fair and balanced way – including coordinating network integration and advising on issues including performance and capacity impacts - enables the industry to deliver better value for money and a more reliable railway for passengers and freight end-users.

There is an accompanying wide-ranging base of stakeholders whose input and opinion is sought at various stages of our work. Many of whom act on behalf of the end user, wider economic and social priorities, and may fund specific projects and programmes. They include user groups (e.g. Transport Focus, Rail Freight Operators' Association), local enterprise partnerships (LEPs), regional transport partnerships, and city deals.

4.1 Our Customers & Stakeholders

4.1.1 Funders and specifiers

Our funders include national governments, sub-national transport bodies (SNTBs), and can include combined authorities, local authorities, LEPs or private businesses.

Funders and other specifiers are also key in our support and management of client portfolio role for enhancements, and in informing choices for investment supported by socio-economic & capacity analysis.

4.1.2 Train operators & owning groups

Our operating customers include the franchised and open access operators (both passenger and freight) as well as potential operators.

Their priorities and needs span the breadth of our operating model, as well as reflecting the different geographies on which their train services operate.

4.1.3 Network Rail regions, routes, and other infrastructure managers (IMs)

Network Rail routes and regions, as well as other IMs are our direct customers. They benefit from analytical work informing the sale of access rights and development of business cases to support infrastructure decisions, and the creation of the network-wide timetable.

We support these businesses in their operations by:

- Building a resilient network **timetable.**
- Supporting preparations for **delivery** (e.g. timetable change assurance activity).
- Managing **frameworks** for devolved activities that are carried out by Network Rail route and regional teams (e.g. engineering access planning, regional strategic planning).

4.2 Our Engagement Approaches

We utilise regular engagement and governance meetings, such as the PMO Steering Group, ORR Director level meetings, and the System Operator Advisory Board's Standing Advisory Group meetings to engage formally with our customers and stakeholders and understand their priorities. Our teams also work with customers and seek feedback regularly on a 1:1 basis.

We also use feedback from our customers received through our Customer Advocacy survey to inform and improve how we work. The 2019/20 survey was conducted in Autumn 2019, the results of which have been discussed in our Annual Narrative Report. Market research experts Yonder (previously known as Populus) conducted the survey on our behalf using a structured, conversational style approach via telephone to draw out rich qualitative narratives to complement the more quantitative data. The fieldwork took place from 4 September – 29 October 2019 and from the 179 key customers we had identified, 115 agreed to take part in the survey – a 64% response rate, significantly better than achieved through previous online-only versions.

4.2.2 Customer Advocacy Results

56%

Over half of customers are **favourable** towards the System Operator overall. Those who are positive tend to base this sentiment on their **good working relationships** with individuals at the System Operator and an understanding of the challenging environment in which the team operates

53%

A majority of customers trust the System Operator overall. For many, its **rigour, robustness and stringency** are appreciated as this enables more **inclusiveness and fairness** throughout decision-making processes.

71%

Over two thirds of customers agree that the System Operator **engages** well with them in a professional capacity.

4.2 Our Engagement Approaches

Whilst the System Operator's satisfaction scores are above or broadly in line with the targets we set, customer satisfaction overall is not 'good' because all the scores sit largely at neutral. Clearly this gives us something to strive towards, including a better understanding of industry satisfaction benchmarks to ensure realistic targets are set in future.

4.2.3 Responding to the results

The feedback we received from customers as part of the 2019 survey was distilled into five key aspirations:

- **Collaborate more** – a range of customer types, especially Passenger Operators, want greater and better collaboration with the System Operator.
- **Be more nimble** – while the System Operator's rigor, robust approach and attention to detail are appreciated by most customers across each of the operational areas, there is also concern that the System Operator 'tends to bureaucracy' and sometimes places process ahead of practical outcomes.
- **Train staff better** – particularly in the timetabling area, customers want better trained staff who know the rail industry well rather than good general project managers.
- **Be more transparent** – some customers are concerned that the System Operator 'hides away in the shadows and they want the System Operator to be more visible and transparent and 'take them on the journey to getting to the decision'.
- **Work more effectively with government** – some customers, particularly Funders and Infrastructure Managers are concerned that the System Operator's role as a strategic planner needs to be better defined and perhaps extended. They are sometimes frustrated that the System Operator doesn't always provide sufficiently clear advice (or compelling enough arguments) to governments and funders about the prioritisation of plans that will benefit passengers and freight users.

To deliver these aspirations a working group with representatives from across the System Operator was established. Each member is responsible for one of the key aspirations and developed an action plan to improve our maturity in that area. To support the working group, a Steering Group was also established, formed of five accountable System Operator directors.

See Appendix G for a visual of the governance structure.

The 2020/21 survey commenced in January 2021 and has been delivered by market research consultants Yonder (formerly Populus) on our behalf. The conversations have been conducted via Microsoft Teams or an equivalent platform depending on the customer's preference, and whilst the survey is ongoing at time of writing, initial indications show a very positive uptake on the survey and our customers have engaged positively. This is encouraging and will enable us and our Regional strategic planning colleagues to update improvement plans for the coming year.

5. Delivery and Activity Plans

The following pages set out the activities and outputs we plan to deliver in 2021/22, through our operating model, to achieve the best outcomes for customers, funders, the rail industry and the wider economy. We will continue to update these plans on an annual basis working with our customers and stakeholders.

5.1 Long-term Planning

5.1.1 Strategy and Planning – Whole Industry Strategic Plan (WISP)

The Secretary of State for Transport (SoS) has asked Network Rail to lead the collaborative development of a long-term (30 year) strategy for the railway by the rail industry, known as the Whole Industry Strategic Plan (WISP). The WISP seeks to support and inform decisions made by the SoS and other funders of the railway, including providing a longer-term context for decisions in relation to funding and outputs for the whole railway post-CP6.

The System Operator has created a new WISP team to lead this work, with a remit from the Department for Transport to define the frameworks in which the strategy is developed and integrated, and to bring together industry experts in a collaborative fashion to develop a strategy with a clear line of sight to key outcomes centred on passengers and freight customers, economic and social objectives and environmental sustainability.

The WISP will also be developed in close collaboration with Network Rail's regions, taking into account the aspirations, forecasts and priorities of funders, Sub-National Transport Bodies, combined authorities and regional/'metro' mayors.

5.1.2 Strategy and Planning - Network Level Planning

System Operator is accountable for the future of the rail network being planned in an efficient, effective and impartial manner. As part of the System Operator transformation in 2020, the accountability for regional medium- and long-term planning was devolved to the regions, whilst the System Operator retains accountability for the strategic planning profession and the long-term planning framework at a network level.

Deciding what regional strategic questions need answering and when to do this work is now the accountability of the regions. Making sure that there are common and agreed building blocks and a clear framework within which this is done is the accountability of the System Operator. The System Operator also delivers network level Strategic Planning under the same framework and using the same building blocks. This means that long-term planning is carried out to a consistently high standard in line with our licence condition. A library of completed and planned strategic planning work will be held by the System Operator so that there can be clear communication to our stakeholders on the portfolio of strategic planning activity that is taking place across the network and the recommendations that result from it.

5.1 Long-term Planning

Strategic Planning will draw on initiatives such as Better Value Rail (a tripartite DfT-NR-ORR initiative, led by the System

Operator for Network Rail - looking at how the industry can deliver outcomes more efficiently and effectively to deliver better value) and other Network Rail programmes focussed on speed and efficiency of delivery.

The System Operator is accountable for leading the strategic planning profession and all that it entails, including the framework for delivery referred to previously; competency requirements for strategic planners; the building blocks of consistent information for strategic plans and a view of the integration of the strategic planning activity being carried out across the industry. This integration of strategic planning starts the process of ensuring network integrity that then continues through our operating model via Network Integration, the Programme Management Office and Timetable Development. Network Integration Fora are being established with the regions in order to provide a regular, formal discussion on the strategic planning and network integration activity that is underway in the region and within the System Operator. This will allow stakeholders and the regulator to be assured that strategic planning activity is being carried out effectively, consistently and transparently. It will also support the sharing of best practice and provide a route for resolution of any issues that arise.

Network Strategy activity over the coming year will include delivery of an overarching Freight Strategy that will bring together strategic activity such as the economic value of freight to UK PLC, the strategic corridors and traffic flows and growth forecasts for these and how they can be accommodated. this will support the WISP activity described earlier. We will also act as an integrator for the traction decarbonisation portfolio, providing a link between the regions' evolving decarbonisation plans and the Traction Decarbonisation Network Strategy. This will give confidence to funders and stakeholders that NR is seeking to deliver governments' decarbonisation policies efficiently and effectively. Other areas of Network Strategy delivery are described in our Long term planning deliveries table.

In order to support the quality of the strategic advice that we provide, it is vital that our engagement with other arm's length bodies such as Highways England continues, to give coordinated advice to funders and specifiers.

5.1 Long Term Planning

The System Operator also has a valuable role working between national funders and regional strategic planning teams We have worked closely with DfT on a consistent network-wide approach to the Restore Your Railway portfolio which also allows for dissemination of best practice and an integrated approach to support both regions and funders with this network wide portfolio to deliver improved connectivity for communities.

The System Operator is also working closely with the DfT and the National Infrastructure Commission to develop a plan for the integration of HS2 Phase 2b with Northern Powerhouse Rail (NPR) and Midlands Connect's (MC) aspirations. This later review was subsequently confirmed as the Integrated Rail Plan for the Midlands and the North (IRP).

The programmes of work that are underway are described in the 'deliverables' section at the end of this chapter. We will continue to develop our plans for these workstreams, and reflect key deliverables in our scorecard structure throughout the year.

5.1.3 Integrated Rail Plan

The Integrated Rail Plan (IRP) is currently expected to be published in early 2021 and will describe the government's strategy to transform rail services across the North and the Midlands. Following the publication of the National Infrastructure Commission's advice, System Operator continues to support DfT in providing advice using evidence from its Northern Powerhouse Rail (NPR) and HS2 Phase 2b teams.

The IRP is expected to be published shortly and the System Operator will continue to work with DfT, Midlands Connect, Transport for the North and HS2 Ltd to take forward the strategy laid out within the IRP. This section will be updated on publication of the IRP identifying the work to be completed with associated deliverables.

5.1 Long-term Planning Deliverables

Better Value Railway	By summer 2021, in cooperation with DfT and ORR, we will launch the Better Value Rail framework for use by project promoters across the industry and external transport planning community. Consistent with wider government objectives, adoption of the BVR framework will facilitate making better decisions earlier leading to improved project solutions at reduced cost in reduced timescales.
Restoring Your Railway	We will continue to work collaboratively with Regions, train operators, DfT and scheme promoters to assess and develop the business cases for RYR proposals, enabling the CP6 RYR fund to be fully allocated. Additionally for all committed proposals we will facilitate industry adoption of 'Project Speed' principals across the RYR portfolio to maximise passenger value in terms of increased community connectivity by the end of CP6.
London Rail Freight Strategy Freight - Target 26	In addition to enhancements to the handling capacity of rail-connected terminals (i.e. the quantity of material the facility itself can process), there also remains room for improvement to the capability of several railheads and branch lines serving them around London in terms of the maximum length of train that they can accommodate. A number of railheads are routinely receiving trains of fewer than 20 wagons and in certain instances this is due to operable train length constraints arising from sidings infrastructure either within or connecting to them. Establishing a consistent minimum standard of train length capability across all London construction terminals would enable many services to be lengthened. This would in turn ensure a consistent minimum payload for all trains, increasing the efficiency of rail freight even further. Industry stakeholders view 20-wagon operation of construction trains across the London area, equivalent to a standard load of about 2000t, as an achievable minimum to work towards. This could require enhancements to connecting infrastructure at terminals that do not currently meet this level of capability. This cross-London programme of works will examine a consistent operational standard for construction sector terminals. It is envisaged that this workstream would make 20 wagons its threshold train dimension, with an aspiration toward achievement of optimal 26 wagon operation (an established contemporary maxima for single loco operation, as evidenced by trains now). This work will begin in the first quarter of 21/22.

5.1 Long Term Planning Deliverables

London Rail Freight - Land Use	There is a limit to how intensively existing terminals can be utilised, both in terms of their own throughput capacity and rail network capacity for trains to access them. This strategy will carry out a comprehensive review of railway-adjacent land across the London area, with a view to the identification and safeguarding of any remaining sites with potential to be of value for future freight use. This exercise will be carried out in collaboration with stakeholders engaged through the development of the LRFS, including colleagues at the Greater London Authority (GLA). Building on positive initial engagement between the GLA and NR through this study, both organisations will continue to collaborate on strategic matters relating to rail freight in the London area. This work will begin in the first quarter of 21/22.
Decarbonisation of Freight Terminals and Yards	TDNS was delivered in October 2020 and identified a number of industry further workstreams. This work will be supported by the Network Strategy team and will identify, with end users, the options available to decarbonise freight terminals and yards in order to support the overall decarbonisation of the rail network. It will start in the first quarter of 2021/22.
Freight Pathways	This work will be lead by the Network Strategy team and, in collaboration with industry, identify the freight pathways that are supported by specific elements of electrification of the network, thus enabling carbon savings from the rail freight sector to be realised as quickly and efficiently as possible.

5.1 Long-term Planning Deliverables

Strategic Planning Profession	Over the coming year we will embed the strategic planning profession and framework across System Operator and the regions. A competency framework will be supported by training opportunities to support the strategic planning community. The governance of strategic planning delivery will also be established via regional Network Integration Fora. These will allow dissemination of best practice, network wide understanding of the portfolio of strategic planning activity and allow us to demonstrate to our stakeholders and the ORR that the Long Term Planning license condition is being discharged effectively.
Further Network Strategy deliverables expected to be started this year	• Consideration of the traffic that aspires to run from the continent across the UK, both passenger and freight and the extent to which the capability of the network can respond to this. This will encompass a view of indirect interoperability and the movement of traffic from ports across the UK and the key passenger flows that contribute to England, Wales and Scotland Connectivity; • Consideration of the way in which power demand is accommodated in the long term across the network and the benefits of a long term view – this will work closely with the regional strategies for accommodating increased power requirements. • A strategic view of the cross country network to determine how to deliver better for passengers and freight across this core corridor.
Integrated Rail Plan (IRP)	*Deliverables to be confirmed on publication of the Integrated Rail Plan*

5.2 Network Integration

A key element of our Strategic Plan for CP6 was to own and manage the consistent, quality framework and processes used to integrate major changes to the network and its outputs and ensure network integrity.

The System Operator transformation established Network Integration under a new Director role as a fundamental part of our operating model. We have brought together existing teams and are developing our capability.

The Network Integration & Policy team's role is to integrate plans for change to the railway, helping make sure they add up to a whole network that realises the industry's intended strategies and truly delivers for passengers, freight and the wider economy.

That means showing when and how changes to infrastructure, operations, train plans, the passenger environment at stations, and underpinning train service contracts, all come together across the network. This includes identifying gaps, conflicts, risks and opportunities, and providing advice on what to do about them.

Working in partnership with the Regions, and collaborating with other System Operator teams, the Centre of Excellence for Capital Delivery, the Whole Industry Strategic Plan (WISP) team, and others, we support the successful development and delivery of joined up programmes by:

- Owning and managing an integrated blueprint for the future configuration of the GB railway network and its outputs, and providing insight and analysis on risks and opportunities
- Applying this insight and analysis to inform aligned decisions on enhancements, train service specifications and contracts, station passenger planning, and track access
- Owning the underpinning policy and framework for track access, providing expert advice on access rights allocation
- Leading policy development for train service specifications and contracts, and providing expert advice and guidance to regions and specifying authorities
- Providing expert analysis on passengers' use of stations and movement in and around them
- Influencing industry reforms related to the ability of the GB railway to successfully deliver changes to services.

5.2 Network Integration

5.2.1 Station capacity

Station Capacity is Network Rail's expert adviser for station planning. We give insights, advice, and analysis for both managed and unmanaged stations that covers:

- Collection of passenger data at stations.
- Daily passenger movement insights via our dashboard.
- Long-term planning and strategy.
- Design creation and validation.
- Station safety.

Our expertise is leveraged across the planning, investment, project and operational spectrum. We work closely with clients, customers and colleagues across Network Rail and the wider industry – advocating for stations that are safer and better performing, offer an improved passenger experience and represent value as investments.

We do this through logical independent advice regarding station enhancements, data-driven insights borne out of monitoring and reporting of passenger footfall and safety baselines, programme and scheme development, design validation, and operational guidance.

The national station enhancement priority list is a key output from the team's work – it represents our considered view on station priorities from a safety, performance, and user-experience perspective.

COVID-19 has necessitated a change in mindset. The pandemic has seen a significant reduction in station footfall and introduced complexities in planning and operation that were previously unthought of. Throughout the spring of 2020, the team gave advice and support on utilisation of space within stations, safe processing of pedestrian movement and how dwell and performance would be affected by social distancing. We stood up a footfall and crowding monitoring platform to support both day-to-day operations and executive level planning – and we keep giving that daily insight. Sensitivity tests on longer term impacts continue to be undertaken as we consider the evolving priority status of our stations.

We continue to develop our capability and offerings to provide expert, value-adding analysis and advice on how passengers access and use stations, in support of projects, strategy development and integration planning.

5.2 Network Integration

In summary, Station Capacity plans to:

- Keep supporting the industry with insights on passenger footfall, safety, experience & behaviours
- Work across Network Rail and the wider industry to develop tools and systems that monitor footfall and crowding - making reporting of the passenger experience easier and more effective.
- Keep driving the change in how crowd management and event handling plans are developed from accurate baselines, robust planning through to validated management plans.
- Keep supporting the regional businesses on identification, development, and planning of station enhancement schemes
- Keep supporting project delivery and compliance, in accordance with Network Rail's design compliance requirements.

5.2.2 Policy and reform team

In the past year we have brought the Regulatory Reform team containing expertise on Access Rights into the System Operator 's existing Policy Team containing the Programme leads working on Access Policies and Network Code Reforms. The resulting small central team to provides a centre of expertise for the whole business on these topics, able to work in an integrated way to initiate, develop and deliver reform. As well as a home for the System Operator -owned framework for Access Rights, and support for our Regions, the group also participates in a number of relevant industry forums (including providing the secretariat for the CRC).

5.2 Network Integration

5.2.3 Maintaining the Sale of Access Rights (SoAR) Framework within NR

Following an earlier (2018/19) package of reforms to address governance and management of the process. A subsequent package of process improvements currently focuses on the development of framework through:

- Enhancing staff capability through online training packages.
- Updating of panel composition in line with devolution.
- Review and updating of the Network Rail Access Policy (inc. regional guidance).
- Revision of SoAR Panel submission materials.
- Enhancement of the Access Rights assurance framework.

In addition, support will be provided to the Network Rail PMO which is conducting a cross-industry review of the lead-up to operator requests for new or amended rights to address late submission of operator access proposals and the resulting short-notice of requests to the ORR for directions on Access Rights. The workstream aims to deliver cross-industry agreed proposals to reduce the risk on late submissions, improve rights alignment to timetable bids, and reduce the potential resulting risk to the effective delivery of the timetable for our customers.

Future work on the SoAR framework will be informed by the input from ongoing industry engagement and proposed reforms, outstanding topics identified in the Network Code Part D review, and the on-going Putting Passengers First (PPF) programme.

The System Operator will also be developing measures and processes to provide enhanced Level 1 and Level 2 assurance of the framework to support effective compliance and implementation of the framework. Areas of review may include:

- Quality of the papers submitted to the SoAR Panel.
- Number of papers returned due to missing information.
- Customer assessment of quality of the engagement.
- Management of milestones within the SoAR Process.
- Level of trained personnel within the customer teams.
- Number of disputes / complaints.

5.2 Network Integration

5.2.4 Network Code Part D Review

Part D of the Network Code (The Code) plays a vital role in the development of timetables. It supports the smooth and effective translation of access rights into the construction of a timetable for the network by setting out the process the parties must follow to produce and maintain a timetable.

Together, operators, Network Rail and ORR share the ability to maintain the Network Code's fitness for purpose. In 2019, Network Rail initiated a collaborative cross-industry review of Part D of the code in order to identify how the industry could address the failures experienced in respect of the May 2018 timetable change and improve the process.

In January 2020 the Class Representative Committee approved changes to:

- Calendar of Events – now a consulted, quarterly, activity.
- PMO – work including risk assessments included in the Code.
- Bid information – quality incentivised and station planning details added.
- Event Steering Groups (ESG) – incentives & outputs recognised in timetabling.
- Timetable Planning Rules (TPRs) - Link to Late Rule Change approach / short notice Sectional Running time (SRT) completion.
- Prior Working Timetable (PWT) -Potential for prior Timetable (TT) development in base TT
- Timetabling - Two-week window of stability to complete TT.

Several other Proposals for Change's (PfC), identified as further opportunities for change are currently in the process of final review and acceptance including:

- Advanced Notice of Change - Replacing Notice of Significant Change (NOSC) with a clear more comprehensive notice.
- Removal of Train Operator variation request (TOVR) amendment explanation –the generic need for a written explanation for amending TOVRs unless reasonably required.
- ESG framework development - Requirement for Network Rail to develop the framework for the consultation and management of ESGs.
- New Working Timetable (NWT) amendments – Changes to reflect the other circumstances in which the NWT may be altered after publication at D-26.

5.2 Network Integration

5.2.5 Further development of proposed changes

Ongoing discussions with customers and recommendations from the Part D review provide a basis for further proposals to build upon those above. Our work in the year ahead will continue to develop opportunities to improved governance, risk awareness, timetable development assurance, accountability and decision-making, and improved early engagement. Reforms that may be taken forward for further consideration include:

- Engineering Access and Train Planning Rules - Improve the planning timeframe for Engineering Access with rolling updates, increased time for Access Submissions and combining consultations.
- Strategic Capacity for Freight – supporting an RDG workstream to develop guidelines and mechanisms for the implementation and protection of strategic freight capacity within the timetable.
- ESG enhancements – Attendance criteria to promote participation to enhance risk management and the timetable development process.

5.2.6 System Operator role in franchising and concession

Network Rail's role supporting the DfT's contracting of train services process was strengthened during CP5, with the System Operator and route businesses increasingly engaged in the process and providing advice and information about the deliverability of specifications.

The Putting Passengers First programme transferred accountability for leading contracting activities, previously split between System Operator and route businesses, to the regions. To support the commitment to put passengers first, System Operator has created a team of three dedicated Rail Franchise Professionals (RFPs). This team provides support and strategic advice to regions and to specifiers (e.g. DfT), to ensure future train service specifications are deliverable, robust and have at their heart the needs of passengers and other users of the railway

Rail Franchise Professionals provide support to regions by providing and developing advice and best practice guidance throughout the procurement cycle, to achieve a robust and deliverable specification for a new train operating partner. They provide specifiers with strategic advice on the market proposition for competitions, and integrate with wider long-term strategy, to underpin a deliverable and affordable outcome.

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System Operator Capacity Analysis teams undertake timetable analysis during the specification and competition phases to advise whether proposed changes to the train service specification can be delivered and what the implications of these changes would be on other operators and the wider network. The specifier can then specify the best overall outcome for the passenger. System Operator also has an integral role in the evaluation process assessing the deliverability of timetable proposals, which should be used to underpin evaluation and contractualisation activities.

Our activity plans in CP6 focus on working in partnership with specifying authorities and regions to progress industry reform, support industry priorities, and driver value to the passenger whilst maintaining the coherence of the railway network., This includes the development of new processes to adapt to proposed changes to the contracting regime and wider procurement landscape.

The COVID-19 pandemic has by necessity meant a pause in the Department's franchising schedule. Operators have been placed on emergency contractual arrangements in the short term to ensure continuity of train services. It is expected that a new schedule will be produced as the industry moves beyond the immediate crisis, reflecting the timescales required to implement any new commercial model and procurement processes. The team will continue to work closely with specifiers and regions to ensure the continuation of services and alignment with strategic industry objectives as we seek to build back better.

A key area of focus for System Operator is the train service specification improvement programme. This is a joint initiative with the DfT, the strategic intent of which is to enhance this key industry process such that it is focused on the needs of the passenger. Current activity is focussing on understanding the impacts of the pandemic on future train service contracting arrangements and in particular how train service changes can be successfully managed through a variety of different contracting models. As this programme matures into a coherent set of plans milestones will be defined and consolidated into the scorecard.

5.2 Network Integration Deliverables

Establishing a new network integration framework and supporting capability	This deliverable is expected to be completed as planned, but may result in a small variation to the size of team required to deliver and manage this.
Developing blueprint that defines the future configuration of the network and its outputs, and the underpinning processes to sustain value-adding support and advice to ELT, Regions, funders and governments	This deliverable is expected to be completed as planned, but may result in a small variation to the size of team required to deliver and manage this.
Development and reform of the framework for access alongside continued expert policy advice	This deliverable is expected to be completed as planned, but emerging policy guidance and wider reform requirements may lead to small additional resource needs
Continued expert analysis and advice on station passenger use	Additional offerings and capability to be developed within existing resource base
Expert advice to and support for Regions on train service specifications and contracts	This deliverable is expected to be completed as planned, subject to the dynamic programme for delivery of National Rail Contracts and future Passenger Service Contracts
Policy advice and leadership of a programme of Train Service Specification Improvements	This deliverable is expected to be completed as planned, subject to the dynamic programme for delivery of National Rail Contracts and future Passenger Service Contracts
Informing aligned funding decisions and providing network integration advice in support of enhancement portfolio management	This deliverable is expected to be completed as planned.

5.3 Industry timetable assurance PMO

Following the work on the December 2018 timetable the PMO became more formalised during the summer of 2018, with an industry steering group and agreed Terms of Reference and was consolidated within the System Operator in 2019. It is now recognised as filling an important pan-industry role in considering future timetable changes in 2021/22 and beyond.

The activity of the PMO is overseen by the Industry PMO Steering Group, comprised of senior level industry representatives at Owner Group and equivalent level, and Network Rail regions. The Industry PMO Steering Group provides challenge, peer review and endorsement of PMO work and outputs. The existence, engagement and support of the PMO Steering Group is vital to the PMO's work.

As we continue to embed the PMO, we propose commencing PMO assurance activity as early as D-208 . This four-year horizon prior to the timetable change will allow us to be informed by franchise changes and any other significant 'events' such rolling stock changes, levels of driver resource or significant infrastructure upgrades. At this stage we would be aligned with the Calendar of Events, and link in to any Event Steering Groups (ESGs) that would be undertaken.

5.3 Industry timetable assurance PMO

The PMO has established an effective framework to enable rapid performance implications to be modelled, and this has been utilised on a significant number of occasions this year. The process from D-208 onwards is then a funnel-like process through to D-0, with more detail and deeper assurance the closer we get to the timetable change.

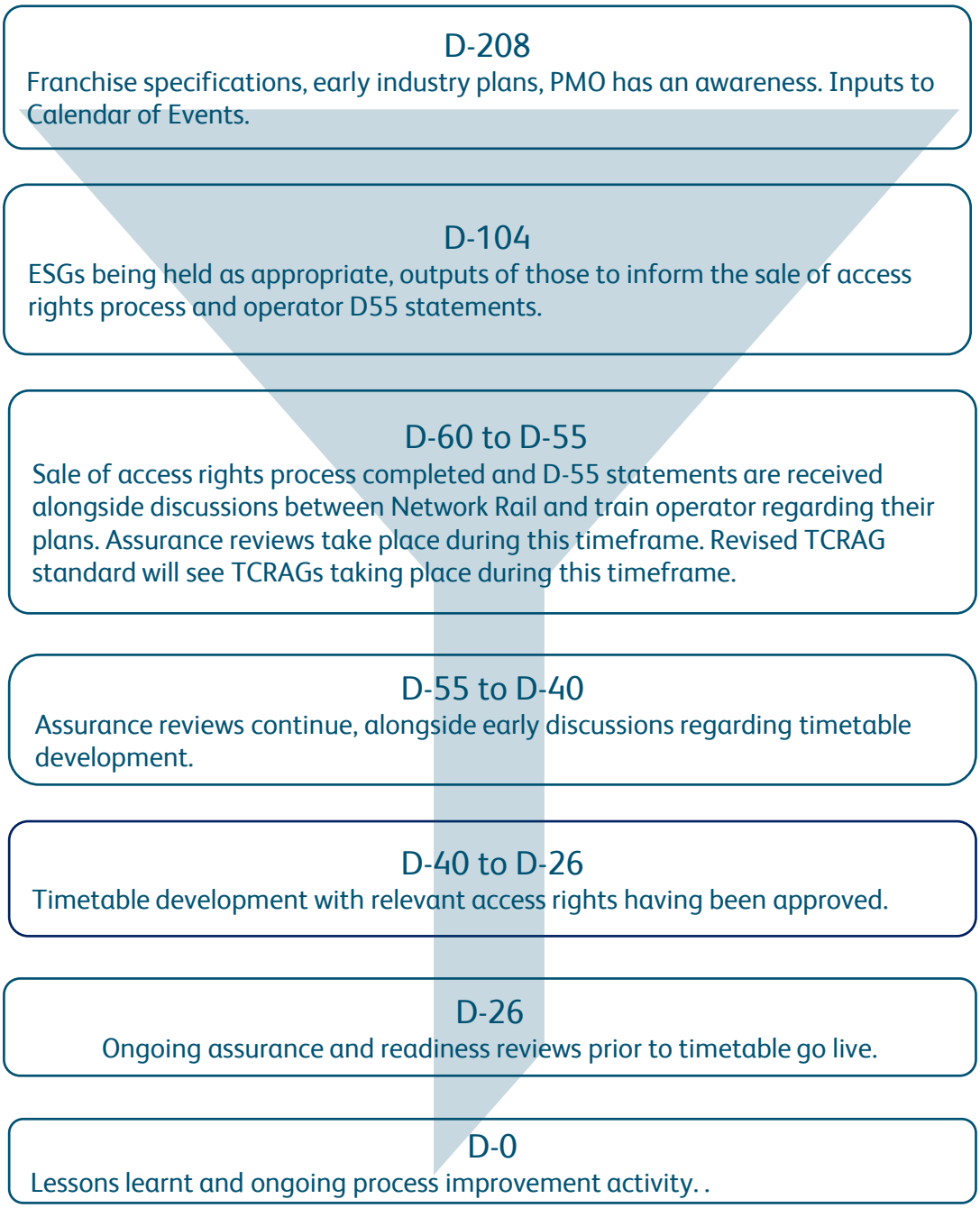


Figure 5: Timetable Assurance PMO commercial framework

5.3 Industry timetable assurance PMO

The assurance for timetable change undertaken by the PMO (broadly considered Level 2 assurance) is a combination of 'self-assurance' and PMO led review of the information provided to the PMO by train operators, Network Rail regions and routes, and System Operator through their own detailed Level 1 assurance activities within each organisation.

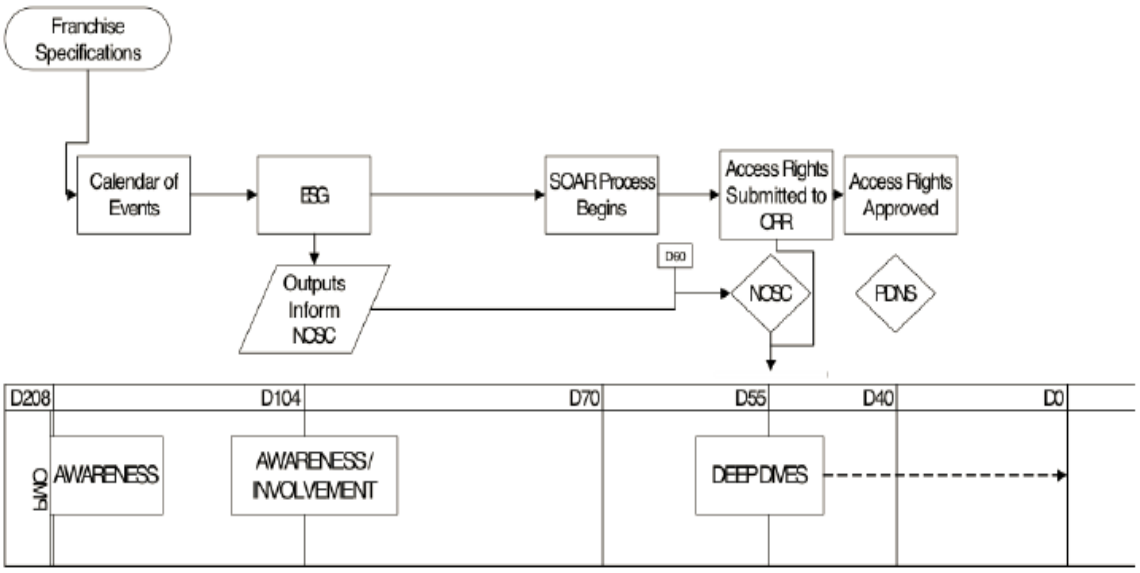


Figure 6: Proposed PMO assurance activity

Assurance reviews are held with each train operator and are attended by all relevant representatives from the operator, route/region, System Operator, and independent experts as necessary to provide additional expertise where the PMO may not necessarily have that skill or experience. The PMO also then provides an overview assurance of these reviews, to identify any common industry themes, in order to provide greater scrutiny in those areas as necessary.

5.3 Industry timetable assurance PMO

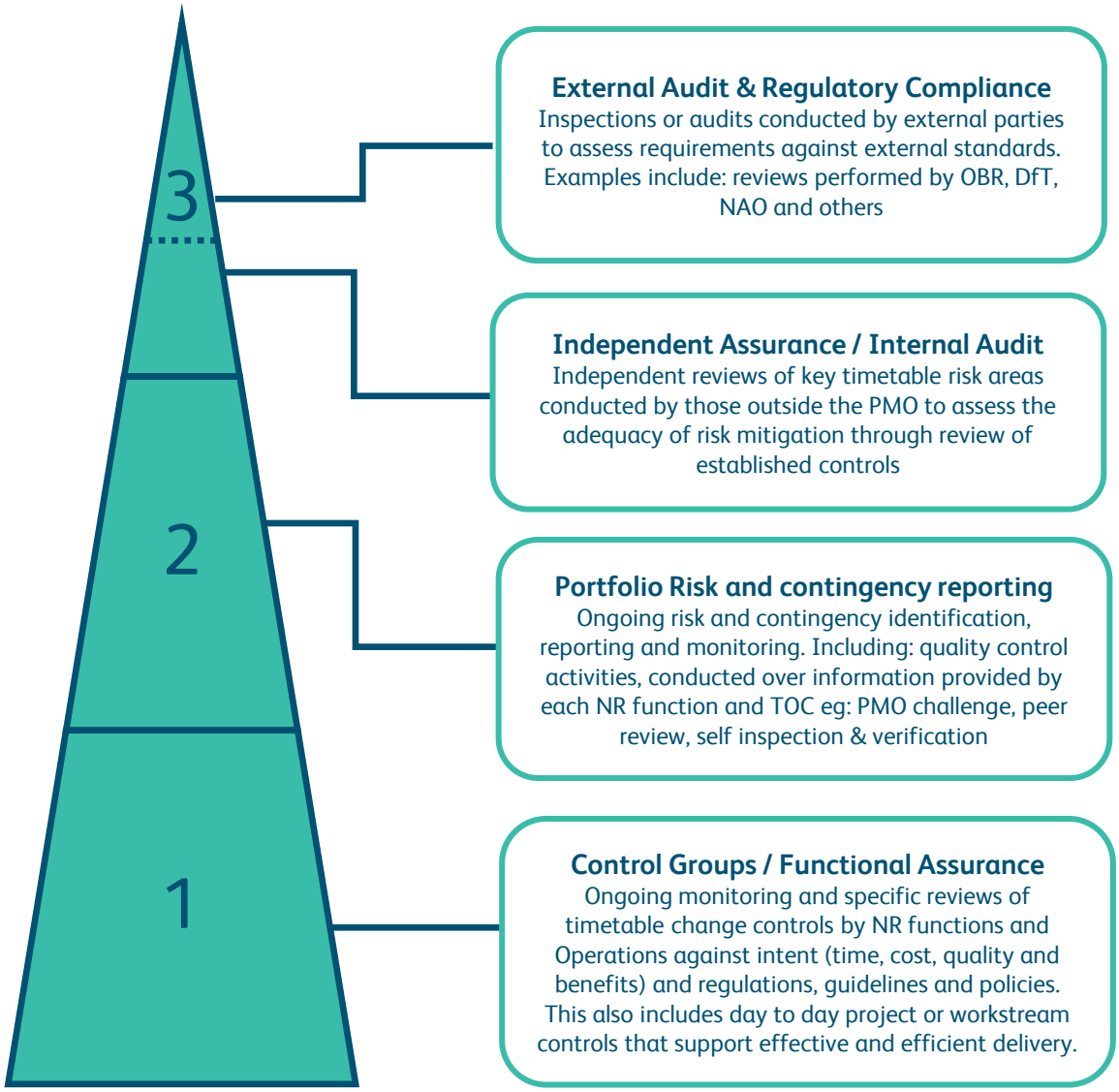


Figure 7: Levels of assurance

COVID-19 has led to a number of additional timetable changes to be implemented at short notice since March 2020. As explained in section (5.4), it is likely that May 2022 will be the next timetable period developed according to normal timescales; there will be four intervention points through 2021, each with compressed development timescales. The PMO is working with the industry to confirm how timetable assurance activity will be managed during this period of frequent change as the process was in development when the pandemic hit and was therefore only partially applied to the quarterly changes that were made in response to the drop in demand due to the national lockdowns.

5.3 Industry Timetable Assurance PMO Deliverables

Timetable risk assurance framework	Own and direct the robust and collaborative industry-wide risk and assurance framework for timetable change.
Timetable change assurance assessments	Deliver industry-wide, independent assurance assessments for timetable changes including 'deep dive' activities into operator readiness, to maximise the ability of the industry to deliver effectively against their agreed obligations.

5.4 Timetable Planning

The Capacity Planning Team leads the Production of the National Long Term Plan (LTP) and Short Term Plan (STP) timetables, alongside delivering advance timetabling and timetable performance modelling to support Regions, funders, third parties and the work of the wider System Operator team.

The Working Timetable, Timetable Planning Rules development and Short-Term Planning processes were delivered using a bi-annual development period during the early stages of CP6. We remain committed to improving this process and embedding continuous improvement of the accuracy of planning through the timetable integration and de-confliction processes. In addition we remain focused on delivering a more agile process for the future.

An industry timetable process reform programme, aligned to the Train Service Specification Improvement Programme, has been launched with the aim of achieving the following benefits:

1. Increased level of strategic timetable development to include consistent levels of performance modelling and associated analysis for large network level timetable changes
2. Development of between one and three opportunities per year for local changes to be introduced with control and structure, enabling the industry to introduce these local changes in an agile manner.
3. The scale of timetabling activity is informed by the Calendar of Events, a draft is included in Appendix D, which sets out timetable changes which have not been considered to constitute a major timetable change event, in addition to those which are supported by an ESG.

5.4.1 COVID-19 Timetable Interventions

COVID-19 has presented a significantly challenging time for the industry. From the 24 March 2020 all Capacity Planning employees, and the majority of the train operator planners, were required to work from home. In the first few weeks of the pandemic the industry was focused on supporting the publication of emergency timetables designed to align with the reduced levels of passengers.

After the emergency timetables (ETTs), step-up timetables were developed and introduced in May, July and September, again designed to recognise the increased levels of passengers and underpinning the Government intent to increase confidence in returning people to the workplace.

5.4 Timetable Planning

The impact of the pandemic has rendered the industry unable to adhere to the formal development dates because funders have only been able to make their specification decision at much shorter notice and consequentially revised WTT development timescales have been agreed at industry level. The table below shows the adjustments that were made to the working timetable milestones in 2020:

Event	Dates from - to	Average Weekday Passenger Trains Planned	% of WTT
ETT	16 March to 15 May	14,373	61
Step-up #1	18 May to 3 July	16,650	70
Step-up #2	6 July to 4 September	19,313	82
Step-up #3	7 September to 11 December	21,070	90

System Operator is working closely with operators and the industry as a whole to return the timetable development cycle to pre-pandemic cycles. In the intervening period, there will be an opportunity to amend the timetable in each of March, May, September and December 2021.

The System Operator is working with operators and funders across the industry to confirm the scale of change that will be able to be accommodated in each change opportunity.

The December 2020 timetable was planned for implementation at the normal December 2020 change date, and returned the WTT to about 92 % of pre-COVID-19 train levels. The principle of Build Back Better was applied to this development, meaning that historically poor performing or under- utilised services could be designed out of the future timetable. Since the latest events relating to COVID-19 further interventions have been made to scale back the level of the December 2020 change to reduce train numbers. The industry has collaborated in order to revise the order in which we do things and the timescales we adhere to have been amended.

Since May 2020 the planning community have gradually returned to the Quadrant:MK, in order to better coordinate the development of the timetable. This return to the office environment has maintained compliance with Government guidelines for social distancing of +2 meters, necessary self-isolation and entry temperature checks. Where timetable planners have continued to work from home, they have been provided suitable technology to enable them to continue delivering outputs as close to the normal work volumes as possible.

The impact of COVID-19 is going to be felt for a considerable amount of time, which will continue to lead to uncertainties with the timetable change plan.

5.4.2 TW-12 Offer and advanced ticket sales process

The impact of COVID-19 on timetable publication timescales has led to the temporary withdrawal of the Informed Traveller publication process. Although the industry planning teams are in control of December 2020 and May 2021 timetable changes, the absence of a stable timetable through the COVID-19 situation due to the need for funders to make late specification decisions has resulted in the industry being unable to deliver short term plans (STP) in line with the TW-12 timescales. At time of writing this narrative the industry are publishing STP timetables at TW-6, with an option for a Informed Traveller Recovery Plan that will see full the industry return to T8 or T9 in the second half of 2021 if funders are able to agree to specification decision points that allow this.

As a result of the Informed Traveller Recovery plan the industry is collaborating to develop solutions to separate ticket sales from formal timetable Offer and publication. A project has been set up to look at tactical options to increase journey availability before the offer. This will look at using the base Working Timetable plan and making relevant information available to passengers to inform a choice about whether to buy a ticket, and the likely stability of the published train time. It will also look at how to confirm journeys or communicate changes to passengers after they have bought a ticket. The Capacity Planning team are assessing the costs and interventions required within NR to support this change and working with RDG and operators to develop options as quickly as possible.

5.4.4 Capital Programmes

The capital programmes that are being undertaken by Capacity Planning are at different stages of the Managing Successful Programme for Network Rail (MSP4NR). Each of the programmes and their current status are shown below:

- Industry Timetable Planning System (ITPS) – Currently in MSP4NR Stage 3.
- Industry Timetable Performance Modelling (ITPM) – Currently in MSP4NR Stage 3.
- Access Planning Programme (APP) – Currently in MSP4NR Stage 3.
- Data Improvement Programme (DIP) – Currently in MSP4NR Stage 3.
- Industry Timetable Technical Strategy (ITTS) - Currently in MSP4NR Stage 2.

5.4 Timetable Planning

5.4.5 Advanced timetabling and performance modelling

The Capacity Analysis and Future Services Integration teams in Capacity Planning produce timetable analysis in advance of D40 for Regions, Funders, third parties, operators and the wider System Operator team. During this year the Capacity Analysis team have completed the delivery of a dedicated Timetable performance modelling team, which works on a rolling programme of industry agreed priorities for analysis. Railsys modelling has been undertaken this year on the Midland Main Line, Great Eastern Main Line and parts of the East Coast Main Line, putting the industry in a better position to understand the impact on performance of forthcoming timetable changes on these routes. A new performance hub has been built offering a wide range of timetable performance measuring tools. Application of these tools will assist the Capacity planning team in delivering the scorecard targets for timetable driven delay in 2021/22.

As part of the early delivery of outputs from the timetable technology programmes, a number of improvements have been made in 2020/21 with further improvements delivering during 2021/22. These include tools to speed up the time it takes to deliver timetable performance modelling output in Railsys and also the roll out of use of new modelling systems in particular the TRENO tool.

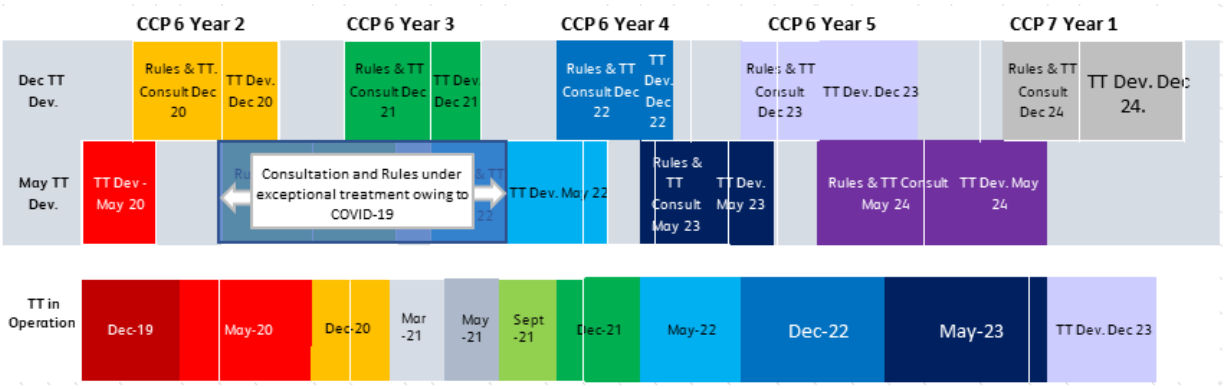


Figure 8: Timetabling Activity Throughout CP6 into CP7

5.4 Capacity Planning Deliverables

To deliver the industry's LTP Timetable Changes on time and to the volume required by customers/ funders.	Proposals are being worked on to allow for a more agile and flexible timetable process allowing quarterly interventions to the plan in 2021 and at least 1 additional intervention in 2022
To deliver the industry's STP Timetable Changes on time and to the volume required by customers/ funders including all NR Informed Traveller commitments.	The Capacity Planning Team delivered record volumes of STP change during 2020/21 and the team strengthening delivered in early CP6 and the new TPS and Station Working tools delivered in 2020/21 will support another year of high volume in 2021/22. Informed Traveller recovery will depend on the requirements of funders in terms of the notice period they are able to give for TT change in 2021/22
To deliver the industry's timetable data to downstream systems and NR's own signalling systems on time and with a high level of accuracy.	We have strengthened our data team to prioritise data tasks that support future service requirements and the embedding of system enhancements delivered through our change programmes. In particular the delivery of TPS Routes which automates the correction of Route Codes. Initiated an industry working group to separate timetable publication from passenger ticket sales to improve service to passengers.
To deliver quantified improvements to Network Performance through established targets for reduction in TT caused delay incidents.	Introduction of granular reporting on delays through a dashboard to show which trains are causing delay to each other or which locations are responsible for congestion/turnaround delay. This has included the development of a new Performance Hub designed to provoke the planner community to better consider the true performance of a timetable in terms of overall resilience to perturbation, not simply compliance with timetable planning rules (TPRs).

5.4 Capacity Planning Deliverables

To deliver quantified improvements to Network Performance through established targets for reduction in TT caused delay incidents	Recent reductions in the validation period for timetables driven by the COVID changes have led to an increase in delay incidents slightly above target. As for our delay minutes we are currently positively under our target and intend to stay this way by the end of the financial year where our target is 330865. During 2021/22 we expect to exceed both incident and minutes targets
To deliver specific Timetable Technology improvement Programmes as set out in System Operator 's business Plan	Examples of tactical technical deliverables that have been or about to be implemented on at least part of the process: **Faster & more flexible performance modelling** • Machine Reading tool designed and introduced to automatically convert signalling diagrams into infrastructure into modelling tool (Railsys) • Railsys upgraded to Enterprise version which allow multiple analysts to build and run simulations on the same model – meaning outputs can be produced in a shorter time • Automating the process of transferring timetable data from the planning tool TPS to the simulation tool Railsys • Enhancement of the Performance Hub tool to advance our use of Timetable Analytics. Using analysis of real performance data to inform future changes. • Automated compliance checking of TT rules through digitisation of TPRs. All route All route teams utilise system and TPR data to assure and measure timetable performance throughout the planning calendar.

5.4 Capacity Planning Deliverables

To deliver specific Timetable Technology improvement Programmes as set out in System Operator 's business Plan	**Increasing automation of timetable production tasks** 1st Upgrade of Train Planning System in 4 years – ensures the 'lights stay on' and is the enabler for future improvements Automation of 3 conflict checking tasks : train length vs platform length / / Train in Loop length / Train routing Proof of concept used to test DRT's (Dynamic Run Times) and establish viability of using automated detection of conflicts in the timetable (such as train on train currently done manually) Automation of station working tasks associated with the production of Station simplifiers, through an enhancement to the ATTUne software. All these activities supported by the delivery of a Data Governance framework for Capacity Planning. Valuing data as an asset.
To deliver Planner resource to improve the quality of advanced timetabling & Performance analysis and create a clear, Network Level line of sight from advanced development timetables to the Production Timetable.	Managed our retention and people plan to reduce the level of planner turnover alongside increasing planner capability through increase in headcount and greater level of competencies. Headcount was in line with plans at 714 at P6. Focused activity against our planner capability has seen us exceed our plan level measure, currently at 345 against a target of 310 Focused resource to develop and lead the strategy for driving train performance improvement through well-structured analysis and reporting.

5.5 Expert Analysis and Forecasting

The Analysis and Economics team is Network Rails' experts in demand forecasting, transport economics and appraisal. We work with sponsors and industry stakeholders to develop an evidence base for rail service aspirations, scenarios of future demand and the value for money for government investment to enhance the network. We plan to continue to support the development of strategic long-term planning and enhancements, and also provide advice to Event Steering Groups and similar decision-making forums on the appraisal of train service options to use scarce network capacity.

The COVID-19 pandemic has introduced significant uncertainty into each of these functions, and we are leading the industry by setting up the Rail COVID-19 Forecasting Group that aims to get everyone moving forward using the same evidence base and to bring together and guide further research by working with our stakeholders to plan for different versions of the future.

We will also:

- Lead industry change by developing industry data sharing strategies between train operators and Network Rail, to support whole industry decision making to achieve a better outcome for passengers .
- Work with industry partners to develop tools and systems that the industry can use to monitor network level passenger demand and trends in travel pattern to support strategic planning.
- Continue to support commercial claims with impartial advice on compensation to train operators that sit outside the liquidated damages regimes (schedules 4 and 8).
- Demonstrate NRs compliance with our Analytical Assurance policy.

5.5 Expert Analysis and Forecasting Deliverables

Business case development for portfolio of enhancements with key decisions .	On Brighton Main Line upgrade as well as other major enhancements in pipeline and support for portfolio level funding decisions. • Develop and track portfolio view of value for money • Track, develop and maintain view of interdependencies between.
Support Whole Industry Strategic Planning and strategic studies	• Provision of Strategic Advice to Transport Scotland (Edinburgh, Inverness, Scotland freight) through the Scotland Demand Forecasting Group. • London Rail strategy – Support portfolio of strategic studies and several ongoing • Continue to lead on industry COVID demand forecasting response
Supporting the regions with tools, appraisal frameworks and guidance	This includes for network planning for traction decarbonisation, WISP, Restoring Your Railway - providing these with appraisal and business case development advice.
Development projects	• RDIS (Rail Demand information system). • Data Sharing strategies with TOCs to share passenger demand information with NR (from ERMAs – Emergency Recovery Management Agreements). • Support rial reform agenda and rail revenue recovery.
Supporting revenue claims.	Providing analysis to support revenue claims disputes.

5.6 Other Industry-Wide Activities

5.6.1 Enhancements Portfolio Management

The System Operator supports the DfT in managing the railway enhancements portfolio. We work to provide good quality advice so that DfT can get the best value from the money they are investing in upgrading the railway infrastructure.

The Client Portfolio Team within System Operator manages the joint governance arrangements including Network Portfolio Board where planning and investment decisions are made. We also maintain a view of potential future schemes that funders may want to invest in so are able to provide a whole-network view that recognises the current and future ambitions of passengers, freight users, government as well as the needs of the operational railway. So that there is neither an overspend or underspend against the amount of funding available we maintain a co-ordinated view of how the schemes are collectively performing against their committed outputs. This includes a robust change control process which we operate in conjunction with NR routes, funders and the ORR.

We have worked closely with the DfT to develop frameworks and governance that follow best practice in portfolio management and are transparent and auditable. In doing so we have built the confidence of funders to maintain their ongoing investment in the railway.

The equivalent activities in Scotland are undertaken by Scotland's Railway.

5.6.2 System Operator role supporting regions in the leadership of Event Steering Groups

In recent years the industry has increased its focus on longer-term, advanced timetable planning. Governance and accountability changes have created opportunities to improve these practices and de-risk the industry's routine timetable production process (described in Part D of the Network Code). Also, industry changes to respond to the challenges of Coronavirus have further highlighted the necessity to focus on and improve advanced timetable planning.

Within Network Rail, accountability for the leadership of some elements of pre D40 processes has been devolved to the routes and regions. This includes accountability for a number of key industry processes in particular Event Steering Groups (ESGs). The System Operator retains a supporting role as co-ordinator between the regions to improve cross-regional timetable integration and ensure consistency. To provide Train Planner support to individual ESGs, ensure the link is maintained with the final Production timetable and manage the detailed timetabling interfaces between ESGs, a Future Services Integration Team (FSI) of planners is now operational within Capacity Planning. This team also Lead Cross Regional ESGs with the agreement of the Regions affected.

5.6 Other Industry-Wide Activities

5.6 Other Industry-Wide Deliverables

Operation of Portfolio and Portfolio Definition Board including management and operation of the governance processes.	Operation of Portfolio and Portfolio Definition Board including management and operation of the governance processes.
Co-ordination of enhancement pipeline across the regions including regional engagement with and support to Investment Teams and sponsors.	Co-ordination of enhancement pipeline across the regions including regional engagement with and support to Investment Teams and sponsors.
Provision of VfM choices for funders and insight for NR exec.	Provision of VfM choices for funders and insight for NR exec.
Funding and output baseline	Development of an agreed funding and output baseline with DfT, management of the enhancements plan and an agreed position between the two organisation.
Ongoing improvements to frameworks and processes including training to regions.	Through the System Operator transformation programme we have refreshed our operating model and at the heart of this design is an articulation of our key processes and enablers in the form of frameworks. Work is ongoing to mature these to a point at which they will be uploaded onto the IMS and used to articulate what the System Operator does and how they do it.

6. Investing in our people

As System Operator, our purpose is to make the railway greater than the sum of its parts. We want to be the recognised expert in planning the railway – optimising the use of the existing network and identifying opportunities for creating new capacity to provide a better network for passengers and freight.

To deliver on our plans, meet our customer and stakeholder expectations, and achieve our vision we will require a high performing team of capable and engaged people.

In 2020/21 the pandemic created significant challenges for the rail industry; Our people rose to the challenge by establishing emergency measures to secure the most appropriate timetable for our customers. Increasing our agility to react swiftly to the changing priorities of the industry.
Leading and working in collaboration with our funders and stakeholders to continue cohesion in a time of uncertainty; proactively looking ahead on the longer team impact on passenger demand and government priorities.

There will be challenges going forward into 2021/22 as we work to re-establish a compliant timetable, however are confident that with our people and continued work in on embedding our people plan we will be successful.

6.1 Our People Plan

Our people strategy shows how we plan to achieve this through an effective organisation that supports Network Rail's vision.

Our people are our principal asset. It is imperative that we recruit, retrain, and invest in our people. Our focus will be to ensure that we are able to attract, recruit, develop and retain the best people available for roles throughout our organisation, and by retaining them through robust talent management, training and personal development.

We will work with our 'People Steering Group" and the local Human Resources team within the System Operator to focus on:

- Wellbeing and resilience
- Inclusivity
- Strategic Workforce Planning & Management
- Authentic Engagement & Successful Cultural Transformation
- Agile Leadership & Working Arrangements
- Managing People Performance & Future Proofing Development

The steering group is championed at functional director level, to deliver a co-ordinated periodic plan of activities across the themed areas, engaging and involving staff across the System Operator.

Our strategy includes continuing the development of the professions for Strategic Network Planning and Capacity Planning to further recognise the importance of the skills and abilities of our people, and to develop our capabilities in making the complex decisions necessary of an effective System Operator. It is divided into 3 elements:

1. **Leading great people and great teams**
2. **Making the System Operator a great place to work**
3. **Reflecting the society that we serve**

These elements are explained further in Appendix F.

6.2 Capability Development

We will provide opportunities for career progression and succession within the System Operator so employees are able to develop their professional skills and expertise, which underpins our ability to deliver, and we can retain talented and dedicated people.

To attract and develop new talent within our function we have introduced a graduate programme, focussed on developing the future leaders of System Operator. We also provide opportunities in our Capacity Planning and Station Capacity teams for a year in industry student, to support a future pipeline of talent and bring new ideas into System Operator.

Our training and development investment will comprise of a range of externally and internally delivered solutions. Priorities will be determined against four key themes:

- safety and regulatory
- leadership and management
- professional skills
- strategic imperatives.

7. Finance Plan

We continue to deliver our Control Period 6 commitments within our funding, managing risks to remain compliant to our financial targets. Costs efficiencies made have been reinvested within system operator to fund additional activities such as the Whole Industry Strategic Plan.

The Covid-19 pandemic has had a major impact the System Operator activities, however it has had minimal impact on the financial forecasts. Travel costs in the year have been substantially smaller and we have incurred some additional costs to establish home working and make a secure COVID-19 office environment.

We do however recognise the need to respond to the current economic crisis and in keeping with the wider business, we have established tight controls on headcount whilst ensuring that we remain agile to whatever future challenges arise. A detailed bottom up review is planned to consider the right resources required to deliver the system operator commitments whilst aiming to remain within the current headcount targets.

7.1 Financial summary

Unit of measure		CP6					
		19/20	20/21	21/22	22/23	23/24	CP6
Business Improvement (capex)	£m	7.6	16.3	23.1	28.5	29.9	**105.4**
Controllable opex (inc risk detailed below)	£m	38.6	37.5	50.0	48.5	50.9	**225.5**
Non-controllable industry costs	£m	0	0	0	0	0	**0**
Total	£m	**46.2**	**70.2**	**77.5**	**85.3**	**88.7**	**327.3**
Permanent Headcount		896	893	865	865	865	**865**
Agency		6	19	30	30	31	**31**
Total headcount		**902**	**912**	**895**	**895**	896	**896**
Headroom (held by Network Rail centrally Inc above)		0	0	1.0	1.0	1.0	**3.0**

Basis for costs

Costs indicated are in cash prices. Our plan also includes £3m of headroom to mitigate business performance risk we face in the control period, and in recognition that we will need to react to the priorities of our funders and stakeholders.

Our costs reflect the new System Operator organisation structure and recognises the revised headcount plans for the control period. Our plans reflect the requirement to maintain staff levels as at Period 6 in 2020/21.

7.1 Financial summary

Summary of Costs by Team or Activity in Function

Activity/team	CP6 total (£m)	Comments
Director	9.5	Includes costs of training and development for the function.
Other	44.5	Split 39.2M Opex and 5.3m capex. Supports delivery across the operational model
Strategy & Planning	38.9	Substantially delivers in the Long Term Network Strategy and System Output Integration elements of our operational model
Capacity Planning	227.4	Split by £127.2 opex and £100.1m capex. Delivers across the operational model via analysis and capability work, and fully delivers production of the timetable.
Industry Timetable Assurance PMO	7.1	Supports cross industry readiness for major timetable change.
Total	**327.3**	

Summary of Financials by team for Control Period 6 (CP6) in £m

Activity/team	19/20	20/21	21/22	22/23	23/24	CP6 total (£m)	Comments
Director	(0.5)	(0.5)	2.4	3.4	5.2	10.0	Includes costs of training and development for the function.
Planning, Delivery, Analysis and Economics	5.8	5.0	5.4	4.9	5.0	26.0	Supports delivery across the operational model, Delivery of capex programme and analysis and economics
Strategy & Planning	10.2	6.0	12.3	10.3	10.2	49.0	Substantially delivers in the Long Term Network Strategy and System Output Integration elements of our operational model
Capacity Planning	22.0	25.8	28.8	28.7	29.3	134.6	Delivers across the operational model via analysis and capability work, and fully delivers production of the timetable.
Industry Timetable Assurance PMO	1.2	1.3	1.4	1.5	1.5	6.9	Supports cross industry readiness for major timetable change.
Total	38.6	37.5	50.3	48.8	51.2	**226.5**	
Capital expenditure	7.6	13.7	19.5	27.9	27.6	96.3	

7.2 Efficiency

- As with the rest of Network Rail, the System Operator function recognises the need to demonstrate strong progress in achieving efficiencies throughout CP6. This is more important than ever given the pandemic and the impact it is having on the economy.
- Our key challenge in CP6 in terms of efficiency is to enhance our productivity rather than reduce costs. In a people centric team, reducing costs can only be achieved by reducing headcount and, generally, we do not propose to do this given our customers are demanding more from us. Our key productivity gains will be through implementation of structured continuous improvement, better use of technology and more collaboration and engagement with stakeholders to enable us to arrive at conclusions and make recommendations more quickly.
- This approach will enable us to work in an increasingly complex environment, whilst delivering enhanced outputs within the resource constraints we face. One such constraint has been on overall functional headcount, which we have managed through the introduction of tighter controls on recruitment.
- We continue to work to create value for money for our funders and customers. The operating expenditure efficiency we made in 2020/21 is £4.7m (at period 10). Much of this this has been offset by headwinds such as the need to fund work on the Whole Industry Strategic Plan (WISP) which wasn't foreseen when the plan for this year was in development, and costs for unused annual leave totalling £1.3m.

8. Governance and Reporting

Acting on behalf of the whole network may sometimes mean taking challenging decisions in the best interests of the system even when these may be in conflict with the wishes of one of Network Rail's regions, a funder's aspiration, or an operator's business proposal.

We need to be seen and trusted by all stakeholders to operate on this basis. We aim to be open in our decision making, invite scrutiny, and advance network policies that command the confidence and support of our stakeholders.

8.1 System Operator Governance Framework

Our independent supervisory mechanisms, self-imposed transparency requirements, and governing processes are crucial elements in driving the desired behaviours internally and providing our stakeholders externally with the aspired level of comfort in the decisions being taken.

8.1.1 Independent Advisory Board

The Advisory Board holds the System Operator to account, consistent with its remit, for the development and delivery of our business plan on behalf of our funders, customers and end users.

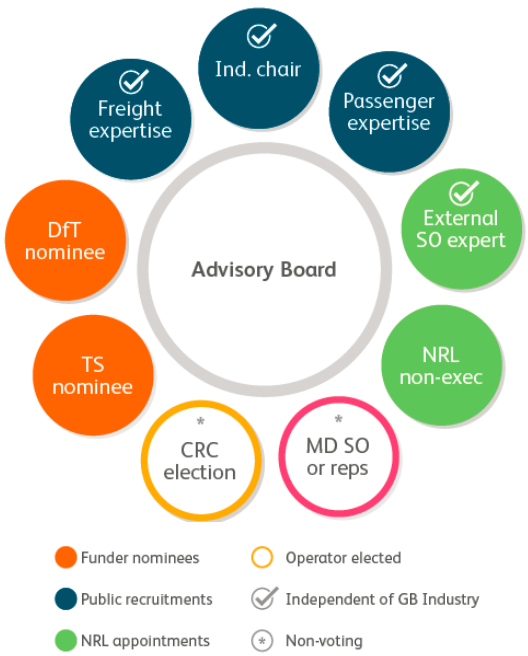


Figure 9: Structure & Role of Advisory Board

The Advisory Board's activities include:

- **Ongoing consideration** of our overall performance, priorities, risks, opportunities, plans and funding, capabilities and incentives,
- **Monitoring delivery** through scorecards, customer surveys, etc.
- Promoting **openness, transparency and scrutiny** of the System Operator's work.

The make-up of the Advisory Board is intended to reflect end beneficiaries (taxpayers, passengers and consigners) and provide high-level strategic challenge backed up with a range of technical knowledge.

The Advisory Board provides ORR with visibility through a variety of channels. In addition to the public reports of its meetings on our website, there is direct liaison through either the System Operator MD and established regulatory meetings, or independently through the Board Chair.

8.1 System Operator Governance Framework

8.1.2 Supporting the Advisory Board

We maintain open channels of communication with our stakeholders through our teams, through feedback via our **Customer Advocacy Survey**, through **industry bodies** and through our **Standing Advisory Groups (SAGs)** – one for operators and one for infrastructure managers (route businesses and other IMs).

The two Standing Advisory Groups, chaired by a director within the System Operator leadership team, support independent governance activity for the System Operator with dedicated channels for network-wide industry engagement.

The groups provide a forum to discuss business plans and policies, their execution, effectiveness, and ongoing engagement. We will consult the groups in a structured and regular way – meetings being held three to four times per year, with attendance by a member of the Advisory Board twice yearly.

The SAGs support industry engagement, scrutiny and consultation with groups of like stakeholders. They allow for input into plans and strategies, and exchange with the System Operator's Leadership Team and the Advisory Board. SAGs are consulted on any plans that could have a significant material impact on their members' activities and can provide forums for consultation and system-level co-ordination.

8.1.3 GRAI - Governance, Risk, Assurance, Improvement

As part of the Putting Passengers First programme, Network Rail has deployed a robust business process framework through GRAI (Governance, Risk, Assurance, Improvement). The GRAI framework supports Network Rail's deeper devolution agenda and keeps us on track, helping us manage our work effectively, learn as a business, improve safety and become a more efficient and dependable partner.

Over the past 12 months we have been developing our approach to GRAI, underpinned by our purpose to make the railway greater than the sum of its parts and to enable successful delivery of our objectives.

In terms of governance specifically, the focus of the last 12 months has been to form and review a comprehensive 'as-is' understanding of our governance, then the development of our framework and approach to GRAI has been undertaken in parallel with delivery of the System Operator transformation programme, drawing on the principles of GRAI to support the development of our new operating model and associated governance model – See section 3.3.

The intention of our governance framework is to provide a comprehensive, robust structure to enable us to deliver our objectives and meet our stakeholder requirements. It draws on both existing meetings such as the Independent Advisory board and Standing Advisory Groups, as well as new, or 'to-be' established meetings, including regional Network Integration Boards.

A visual of the new Governance structure can be found in Appendix G .

8.2 Risks, opportunities, constraints & assumptions

A key priority for the System Operator during the control period is to develop its maturity towards risk management. As part of this process, timely reviews of the current and emerging risks are conducted. In November 2020, a risk review workshop took place with representatives in attendance from all the departments within System Operator.

Risks are constantly changing due in part to the ongoing rail reform as well as changes to the timetable due to the impact COVID and more. Therefore, conducting a periodical management of risks is fundamental to the functioning of the business. A number of new and emerging risks were identified and the management of these is under development during early 2021. The risks were identified using the 'PESTLE' framework as detailed below:

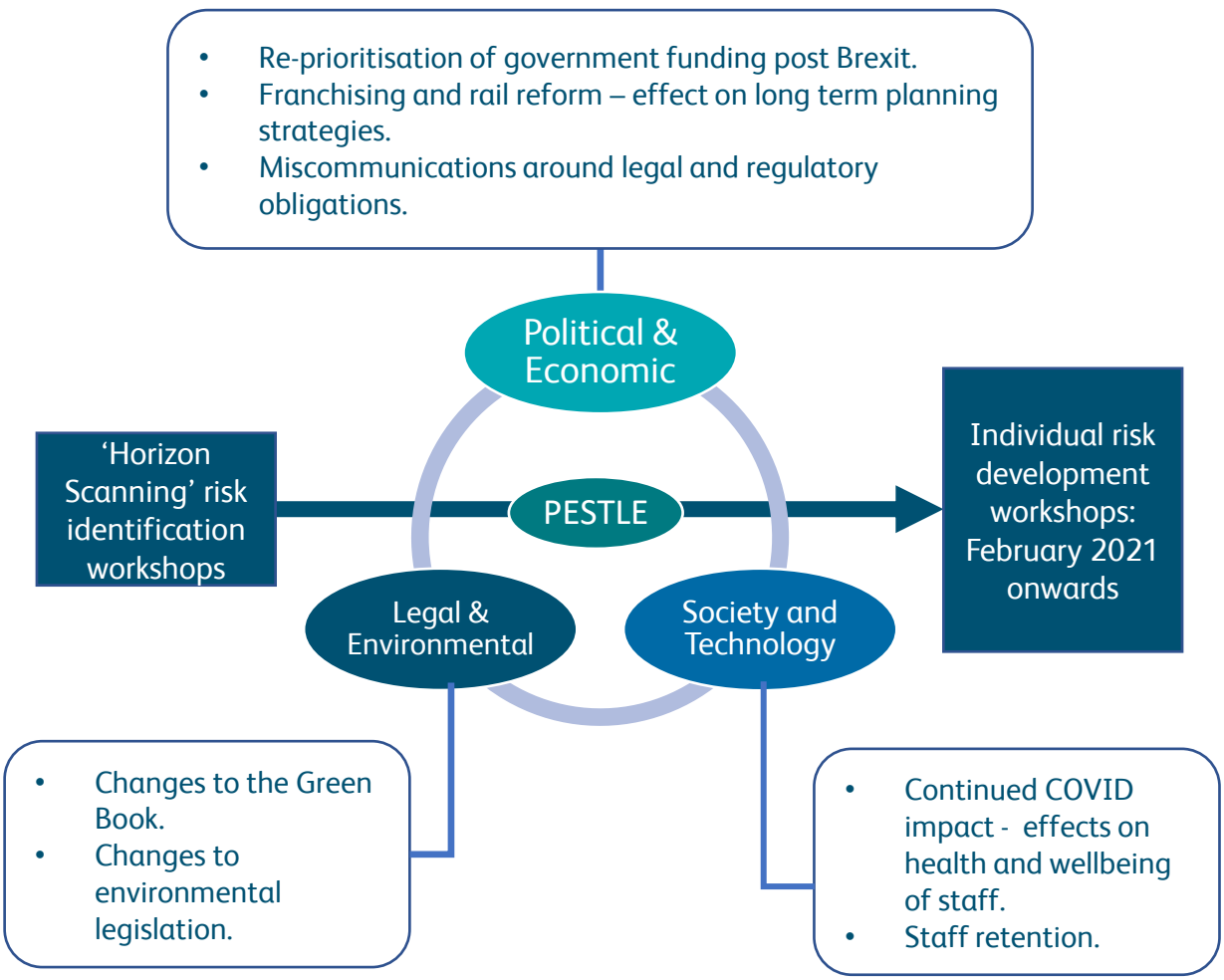


Figure 10: PESTLE risk development pipeline

8.2 Risks, opportunities, constraints & assumptions

8.2.1 Enterprise Risk Management

Enterprise risks are risks that could jeopardize our ability to remain in business. Enterprise risk management is the way we address all of these risks as a cohesive strategy for understanding and controlling risk.

The System Operator is responsible for the management of the following Enterprise Risks:

- Network Rail failing to put in place effective frameworks and governance around the England & Wales enhancements portfolio to support controlled, informed and transparent decision-making by funders in relation to: (a) selecting the right outputs; (b) managing the enhancements portfolio within a set of agreed constraints.
- Network Rail failing to plan the future of the railway in collaboration with the rest of the industry and with governments to generate political support and investment. This can result in the inability to deliver a better railway for a better Britain - CP7
- Network rail is unable to produce a robust timetable that is both high quality and high performance. This may result in a financial and reputational impact as well as poor passenger and freight customer experience.
- Network Rail and the industry responding poorly to changes in passenger demand and passenger needs as Britain recovers from the Covid pandemic, resulting in continued low passenger numbers, financial and reputational impacts for Network Rail, as well as the passenger experience.

Each of these Enterprise Risks is sponsored by a member of the System Operator's leadership team and is assigned a risk coordinator. They are reviewed quarterly at the Business Assurance Committee (BACS) meetings. The structure of these meetings is shown in section 8.3.3.

A full list of the assumptions that underly these risks can be found in Appendix H.

8.3 System Operator Reporting

8.3.1 Reporting

Over the past 6 months we have been carrying out a detailed review of how reporting is administered and utilised to provide an 'as-is' picture on the state of our key reporting outputs. This has allowed us to analyse our reporting and implement changes to reporting through a continuous improvement approach to develop a new reporting suite that is **comprehensive, robust and efficient** in order for us to understand how we are performing period on period. This presents us with an opportunity to then accurately demonstrate our performance to not only our colleagues and internal stakeholders but also our key external stakeholders. This development in reporting has also been designed in parallel to complement our newly developed System Operator Leadership Team (SOLT) meeting structure.

The purpose of the **newly developed meeting structure** is to:

- Better fulfil our **accountabilities** for management of the System Operator
- Provide a clear and concise view of **performance** of the System Operator
- Improve the current **reporting** process (inputs and outputs) in line with the GRAI Programme

A visual example of this is shown in section 8.3.2 (SOLT meeting structure). Section 8.3.3 shows how this structure fits into the developing System Operator meeting structure.

8.3.2 SOLT Meeting Structure

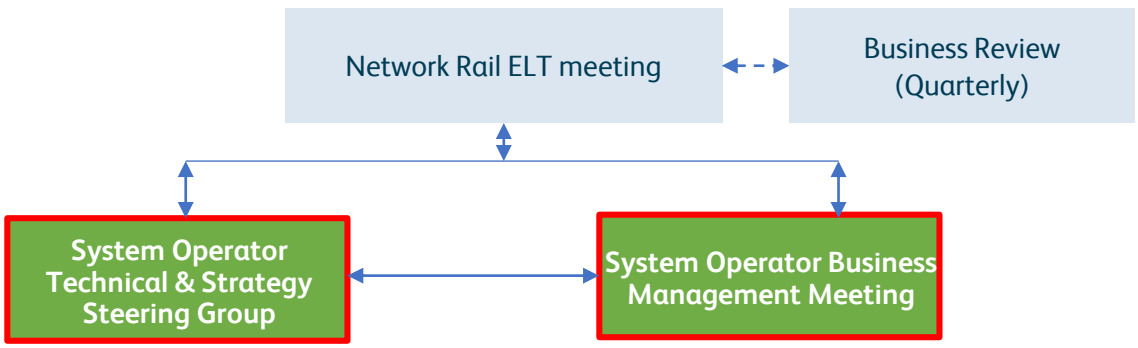
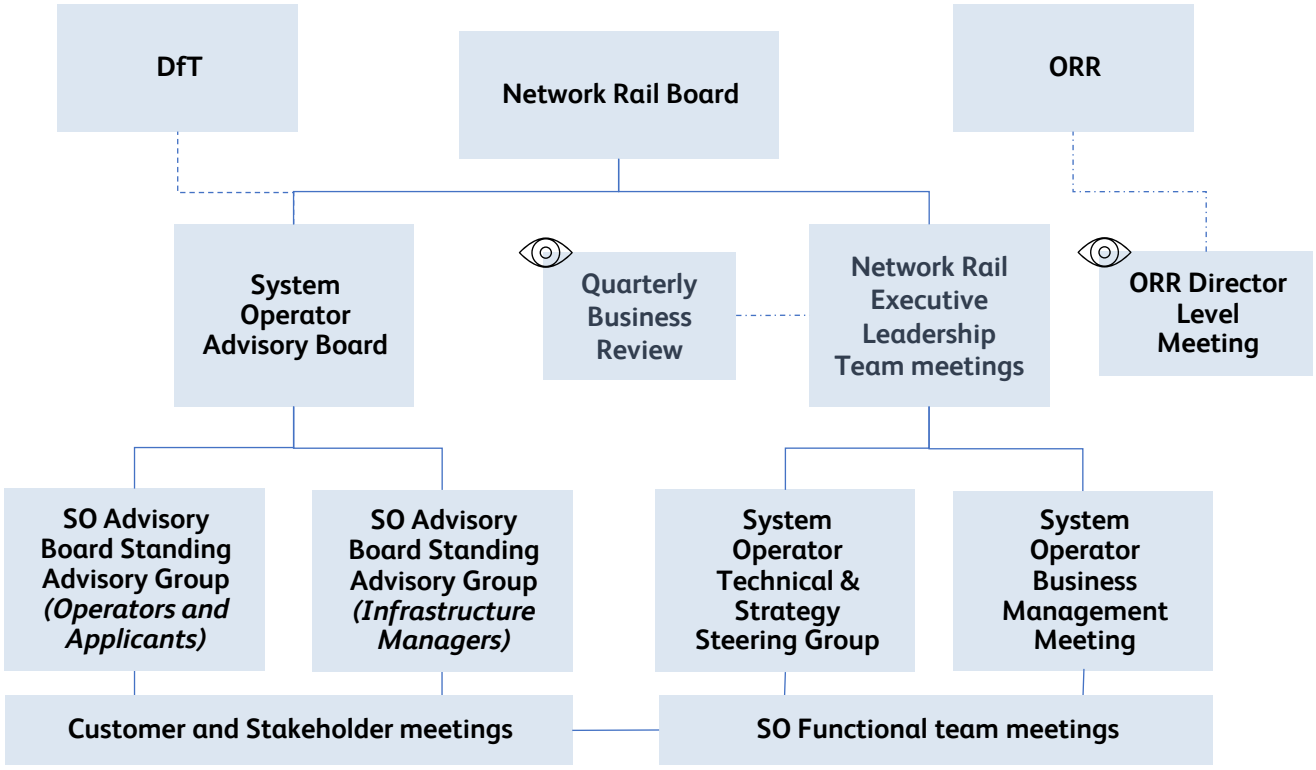


Figure 11: SOLT Meeting Structure

8.3 System Operator Reporting

8.3.3 System Operator (SO) meeting structure



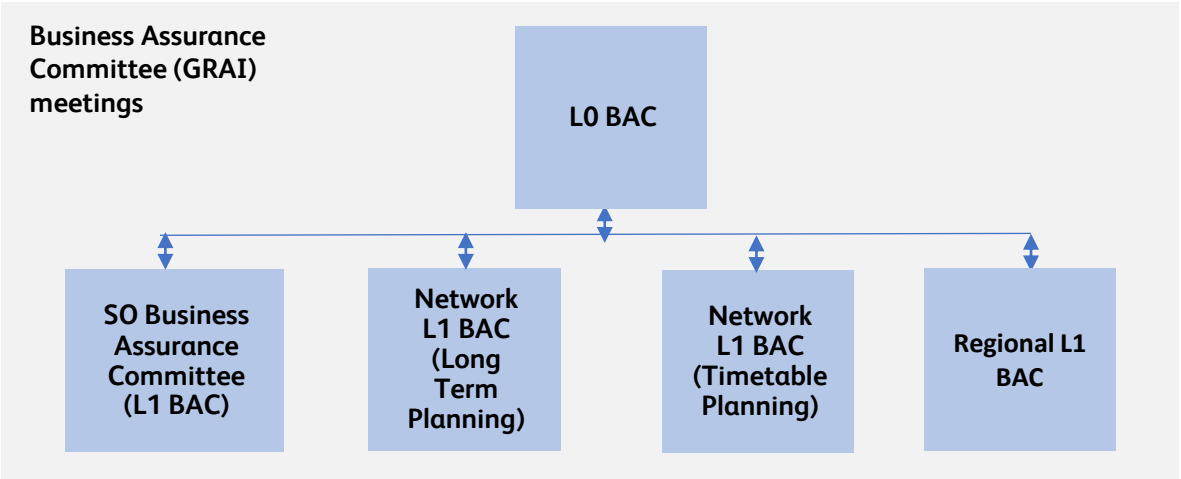


Figure 12: System Operator (SO) meeting structure

8.4 (GRAI) – Governance, Risk, Assurance, Improvement

8.4.1 (GRAI) - Governance Risk Assurance Improvement Maturity

As part of the Putting Passengers First programme, Network Rail has deployed a robust business process framework through GRAI (Governance, Risk, Assurance, Improvement). The GRAI framework supports Network Rail's deeper devolution agenda and keeps us on track, helping us manage our work effectively, learn as a business, improve safety and become a more efficient and dependable partner.

Over the past 12 months we have been developing our approach to GRAI, underpinned by our purpose to make the railway greater than the sum of its parts and to enable successful delivery of our objectives. Our focus for the upcoming 12 months is to effectively & efficiently embed the GRAI programme as a BAU activity throughout the System Operator with demonstratable evidence of the benefits it brings to all of us in our daily roles.

In terms of governance specifically, the focus of the last 12 months has been to form and review a comprehensive 'as-is' understanding of our governance, then the development of our framework and approach to GRAI has been undertaken in parallel with delivery of the System Operator transformation programme, drawing on the principles of GRAI to support the development of our new operating model and associated governance model – See narrative in 3.3.

The intention of our governance framework is to provide a comprehensive, robust structure to enable us to deliver our objectives and meet our stakeholder requirements. It draws on both existing meetings such as the Independent Advisory board and Standing Advisory Groups, as well as new, or 'to-be' established meetings, including Network Business Assurance Committees. The inclusion of both internal Network Rail meetings as well as external meetings is shown in section 8.2.3.

Figure 13: GRAI Framework

Sign Off

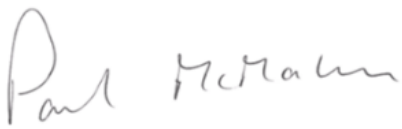
This document and accompanying templates are owned by the Managing Director, System Operator.

Submission of this document indicates confirmation that:
•All appropriate level 1 assurance activities have been undertaken (see separate advice on definition of level 1 assurance);

•The Director is satisfied with the quality, currency and appropriateness of the content of this document as well as the cost, volume and activity projections to which it refers;

•The signatories are satisfied that the plan has been assessed as deliverable, subject to the assumptions articulated in Appendix H.

Authorised by:

	Paul McMahon, Managing Director, System Operator	February 2021
Michael Murphy	Michael Murphy, Financial Controller	February 2021

Appendices

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Appendix A: SO Scorecard 2020/2021

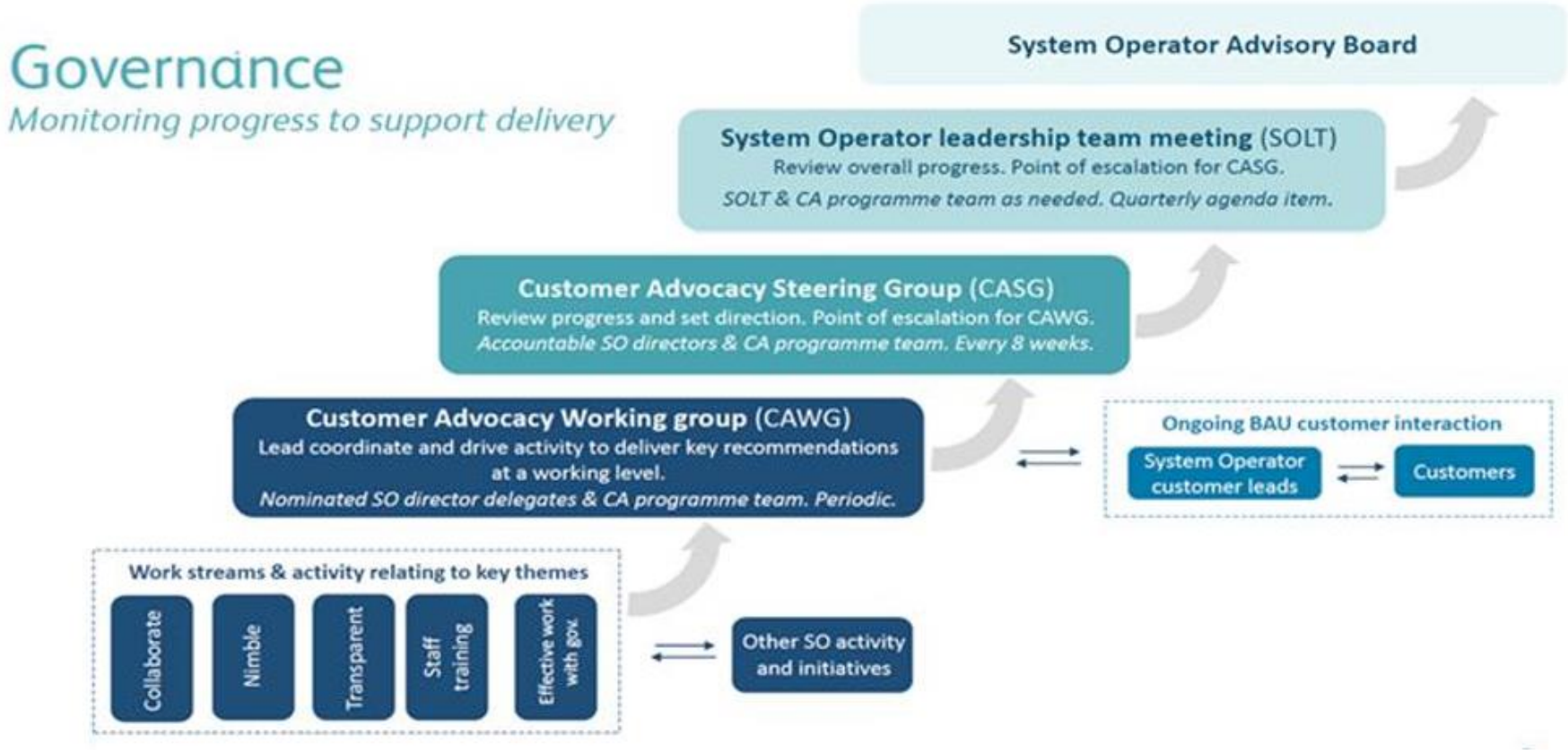
System Operator	*MD:*	*Paul McMahon*	*FY Period:*	*20/21*	*10*								
Timetable performance	**Weighting**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**			
Impact on train performance *(delay incidents)*	**10%**	10.0%	23,744	22,613	21,482	1,428/1,901	19,564	↑	25,285	0%			
Delivering an improved timetable service	**Weighting**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**			
WTT production milestones	**30%**	15.0%	2	3	4	0/0	2	↔	3	100%			
Informed Traveller Recovery		15.0%	75%	85%	95%	93%/85%	97%	↓	91%	80%			
Industry Timetable Assurance	**Weighting**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**			
PMO Milestones *(TBC)*	**5%**	5.0%	80%	90%	100%	0/0	0%	↔	90%	50%			
Capacity Allocation	**Weighting**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**			
Access Rights Framework	**5%**	5.0%	80%	90%	100%	0/0	100%	↔	100%	100%			
Customer advocacy	**Weighting**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**			
Long Term Network Strategy	**10%**	2.50%	3.08	3.40	3.71	0.00	0.00	↔	0.00	0%			
System Output Integration		2.50%	2.91	3.22	3.55	0.00	0.00	↔	0.00	0%			
Capacity Allocation		2.50%	2.61	2.93	3.25	0.00	0.00	↔	0.00	0%			
Timetable Development		2.50%	2.66	2.96	3.30	0.00	0.00	↔	0.00	0%			
Finance	**Weighting**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Var Actual vs. Planned**	**YTD (var)**		**FYF (var)**	**ACHIEVEMENT**			
Financial performance measure – opex (£m) *(variance)*	**5%**	2.5%	-1.57	0.00	1.57	0.20/0.00	4.85	↓	0.00	50%			
Financial performance measure – capex (£m) *(variance)*		2.5%	-1.06	0.00	1.06	0.63/0.00	2.63	↑	0.00	50%			
People Measure	**Weighting**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**			
Workforce Diversity (gender)	**5.0%**	5.0%	36%	37%	38%	40%/39%	38%	↑	38%	100%			
Safety	**Weighting**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**			
Work Related Absence *(work related absence incidents - total)*	**5.0%**	5.0%	50	45	40	0/3	8	↑	21	100%			
Long Term Planning	**Weighting**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**			
Whole Industry Strategic Planning (annual plan - milestone delivery)	**15%**	7.5%	80%	90%	100%	0/0	0%	↔	0%	0%			
Strategic Planning *(annual plan - milestone delivery)*		7.5%	80%	90%	100%	0/0	94%	↓	94%	71%			
Network Integration	**Weighting**		**WORSE**	**TARGET**	**BETTER**	**PERIOD Actual vs. Planned**	**YTD**		**FYF**	**ACHIEVEMENT**			
Rail Integration Milestones *(funded project development milestones achieved)*	**10%**	5.0%	90%	95%	100%	0/0	100%	↔	100%	100%			
Rail Development Milestones *(funded project development milestones achieved)*		5.0%	90%	95%	100%	0/0	0%	↔	100%	100%			
		100.0%							***Weighting***	***62.29%***			

Appendix B: SO Long-term Scorecard 2021/2022

		Yr1 Actuals	Yr2 Forecast	Yr3 Forecast	Yr4 Forecast	Yr5 Forecast	CP6 Forecast
ON THE SIDE OF PASSENGERS AND FREIGHT USERS		**19/20**	**20/21**	**21/22**	**22/23**	**23/24**	**Achievability**
Impact on train performance (delay incidents)	**Current Forecast**	20601	25285	22,273	TBC	TBC	
	Last Year's Plan	22957	22613	22273	19838	TBC	
WTT Production Milestones	**Current Forecast**	4	3				
	Last Year's Plan	4	4				
TW12 Compliance	**Current Forecast**	96%	20%				
	Last Year's Plan	90%	90%				
Financial Performance OPEX £m	**Current Forecast**	-2.82	0	19.5	TBC	TBC	
	Last Year's Plan	0	0	0	19.5	TBC	
Financial Performance CAPEX £m	**Current Forecast**	-0.52	0	19.5	TBC	TBC	
	Last Year's Plan	0	0	0	19.5	TBC	
Whole Industry Strategic Planning (milestone delivery)	**Current Forecast**	93%	100%				
	Last Year's Plan	80%	90%				
Strategic Planning	**Current Forecast**	93%	94%				
	Last Year's Plan	80%	90%				
Timetable Milestones	**Current Forecast**	N/A	85%	90%	TBC	TBC	
	Last Year's Plan	N/A	N/A	N/A	90%	TBC	
EASY TO ENGAGE WITH, EFFICIENT AND DEPENDABLE PARTNER		**19/20**	**2021**	**2122**	**2223**	**2324**	**Achievability**
Capacity Allocation - Access rights framework	**Current Forecast**		100%				
	Last Year's Plan		90%				
Long term Network Strategy	**Current Forecast**		3.40				
	Last Year's Plan		3.40				
System Output Integration	**Current Forecast**		3.22				
	Last Year's Plan		3.22				
Capacity Allocation	**Current Forecast**		2.93				
	Last Year's Plan		2.93				
Timetable Development	**Current Forecast**	2.96	2.96				
	Last Year's Plan	2.93	2.96				
Customer Advocacy Action Plan Milestones	**Current Forecast**	N/A	N/A	90%	TBC	TBC	
	Last Year's Plan	N/A	N/A	N/A	90%	TBC	
PROUD TO WORK FOR NETWORK RAIL		**19/20**	**2021**	**2122**	**2223**	**2324**	**Achievability**
Workforce diversity (gender)	**Current Forecast**		38%				
	Last Year's Plan		37%				
Work related absence	**Current Forecast**		21				
	Last Year's Plan		45				
Diversity & Inclusion - Female Headcount	**Current Forecast**	N/A	N/A	44%	TBC	TBC	
	Last Year's Plan	N/A	N/A	N/A	44%	TBC	
Diversity & Inclusion - Ethnicity Headcount	**Current Forecast**	N/A	N/A	15%	TBC	TBC	
	Last Year's Plan	N/A	N/A	N/A	15%	TBC	
Your Voice Action Plan Milestones	**Current Forecast**	N/A	N/A	TBC	TBC	TBC	
	Last Year's Plan	N/A	N/A	N/A	TBC	TBC	
Mental Wellbeing Training	**Current Forecast**	N/A	N/A	90%	TBC	TBC	
	Last Year's Plan	N/A	N/A	N/A	90%	TBC	
INSTINCTIVE INDUSTRY LEADER		**19/20**	**2021**	**2122**	**2223**	**2324**	**Achievability**
Industry Timetable Assurance -PMO Milestones	**Current Forecast**	93%	90%				
	Last Year's Plan	90%	90%				
Rail Integration Milestones	**Current Forecast**		100%				
	Last Year's Plan		95%				
Rail Development Milestones	**Current Forecast**		100%				
	Last Year's Plan		95%				
Industry Timetable Technical Strategy Delivery Milestones	**Current Forecast**	N/A	N/A	90%	TBC	TBC	
	Last Year's Plan	N/A	N/A	N/A	90%	TBC	
Network Integration & Policy Delivery Milestones	**Current Forecast**	N/A	N/A	90%	TBC	TBC	
	Last Year's Plan	N/A	N/A	N/A	90%	TBC	
Strategic Planning Milestones	**Current Forecast**	N/A	N/A	90%	TBC	TBC	
	Last Year's Plan	N/A	N/A	N/A	90%	TBC	

These targets represent our strategic plans. We continue to refine our annual targets to reflect changing circumstances so they are appropriately challenging.

Appendix C: Customer Engagement Governance



Appendix D: Draft Capacity Planning Calendar of events

| Calendar of Events | | | | | TIMETABLE PARTICIPANTS | | | | |

Appendix D: Draft Capacity Planning Calendar of Events

Changes which are not Events				
Expected Timetable Implementation Date	**Change**	**Type of Change**	**End Date**	**Reason for Change not being an Event**
December 2020	Gatwick Airport Station Upgrade - Platforms 5 & 6, Down Fast and Reversible Loop out of use for 15 months	Restricted Infrastructure	Mar-22	Timetable change expected - insufficient to qualify as an Event.
	South Western Railway new rolling stock	Timetable & Rolling stock	Dec-20	Timetable change expected - insufficient to qualify as an Event
	HS2 Materials by Rail (MbR) - (Mar/Apr 2021) closure of FCC waste facility at Calvert and the utilisation of existing paths into/out of Calvert for aggregates	Timetable	May-25	Timetable change expected - insufficient to qualify as an Event
May 2021	Thameslink, Southern & Great Northern Franchise	New franchise	Sep-21	Extent and timing of timetable change(s) not currently known
	West Midlands franchise increased service level including Sundays	Timetable	May-21	Extent and timing of timetable change(s) not currently known
	Okehampton to Exeter St. Davids 0.5tph weekday service	Timetable	May-21	Timetable change expected - insufficient to qualify for an event
	Portway Park & Ride new station	Infrastructure	Dec-21	Timetable change expected - insufficient to qualify as an Event.
	ECTL - Introduction of new 5 trains per day service between Edinburgh and London for First Group's East Coast Trains Limited	Timetable	May-21	Timetable change expected - insufficient to qualify as an Event
December 2021	Chiltern Franchise	New franchise	Dec-21	Extent and timing of timetable change(s) not currently known
	East Midlands Franchise Train Service Requirement 2	Timetable	Dec-21	Extent and timing of timetable change(s) not currently known
	Wrexham - Bidston frequency enhancement (2 trains per hour)	Timetable	Dec-21	Extent and timing of timetable change(s) not currently known
	Cardiff Central/Newport - Ebbw Vale	Timetable	Dec-21	Extent and timing of timetable change(s) not currently known
	Leeds Capacity Work	Infrastructure	TBA	Extent and timing of timetable change(s) not currently known
	Marsh Barton new station	Infrastructure	Dec-21	Timetable change expected - insufficient to qualify as an Event
~~May 2021~~	Bristol Area Service Improvements: 2tph Bristol - Gloucester, 2tph Avonmouth - Bristol Temple Meads (BTM) with 1tph to/from Severn Beach, 3tph BTM - Westbury, 1tph	Timetable	May-21	Timetable change expected - insufficient to qualify as an Event
	Grand Union Service Introduction - Phase 1: May 21 to May 23, 7 paths in both directions between Cardiff & Paddington using cl.91 + Mk4 coaches. Services to call at Cardiff Parkway (when open), Newport, Severn Tunnel Junction and Bristol Parkway.	Timetable	Dec-21	Timetable changes expected - insufficient to qualify as an Event
	HS2 Materials By Rail (MbR) - (Dec 2021/Jan2022) introduction of West Ruislip freight terminal on Chiltern Main Line for the delivery of tunnel segments	Timetable	Dec-24	Timetable change expected - insufficient to qualify as an Event
May 2022	Gatwick Airport Station Upgrade - all platforms reopen	Timetable & Enhanced	May-22	Timetable change expected - insufficient to classify as an Event
	Final phase of North Downs line service increase 1tph Reading -Gatwick Airport (increase to 3tph) Change impacts 3 Routes interacting with 3 Main Lines into London	Timetable	May-22	Timetable change expected - insufficient to classify as an Event
	West Cumbria Mining Introduction of 4 class 6 paths (loaded – 60H66S24) EWD between Powbeck (near Whitehaven) and Redcar – routed via Carlisle London Road-Tyne Yard-Stockton. Introduction of 4 class 6 paths (empty – 60-66S06) EWD between Redcar and Powbeck (near Whitehaven) – routed via Stockton-Tyne Yard-Carlisle London Road.	Timetable	May-22	Timetable change expected - insufficient to classify as an Event
	C2C new fleet introduction and supporting timetable change	Rolling Stock &	Dec-21	Extent and timing of timetable change(s) not currently known
	Northern and TPE re-write cross Manchester	Timetable, Enhanced	Dec-21	Timetable change expected - insufficient to qualify as an Event
	Extension of Gospel Oak - Barking services to Barking Riverside	Timetable & Enhanced	May-22	Timetable change expected - insufficient to qualify as an Event
	HS2 Materials by Rail (MbR) - freight services into/out of Euston Platform 17.	Timetable	Dec-22	Timetable change expected - insufficient to qualify as an Event
December 2022	~~East West Rail, Bicester Village – Bedford operation~~	~~New and enhanced infrastructure~~	~~Dec-22~~	~~Extent and timing of timetable change(s) not currently known~~
	Nexus Tyne & Wear Metro: new train fleet and timetable change	Timetable & Rolling stock	Dec-22	Extent and timing of timetable change(s) not currently known
	Intercity East Coast Franchise	New Franchise	Mar-23	Extent and timing of timetable change(s) not currently known
	Core Valley Lines additional frequencies (network will be divested to TfW by this date but through running maintained onto national network)	Timetable, Enhanced infrastructure & Rolling	Dec-23	Extent and timing of timetable change(s) not currently known

Appendix D: Draft Capacity Planning Calendar of events

Changes which are not Events				
May 2023	Transpennine Express Franchise	New franchise	Apr-23	Extent and timing of timetable change(s) not currently known
	Hope Valley upgrade Remodelling of Dore Junction Stockport to New Mills JTI New Loop at Bamford	Infrastructure	TBA	Extent and timing of timetable change(s) not currently known
	Significant freight service uplift into/out of Willesden Euroterminal (7-10 circulations a day)	Timetable	May-23	Timetable changes expected - insufficient to qualify as an Event
December 2023	Midland Main Line Key Output 1a - LDHS bi-mode enabling completed	Enhanced Infrastructure	Dec-23	Extent and timing of timetable change(s) not currently known
	Core Valley Lines additional frequencies (network will be divested to TfW by this date but through running maintained onto national network)	Timetable, Enhanced infrastructure & Rolling	Dec-23	Extent and timing of timetable change(s) not currently known
	Increase in Sunday services across Wales & Borders New express service on Cambrian Coast between Tywyn and Pwhelli on summer Sundays	Timetable & Rolling stock	Dec-23	Extent and timing of timetable change(s) not currently known
	Cardiff Central - Bridgend via Vale of Glamorgan: Enhanced 2tph frequncy.	Timetable & Rolling stock	Dec-23	Extent and timing of timetable change(s) not currently known
	TRU Scheme W2 - Stalybridge to Huddersfield, Stalybridge junction re-thrown towards Victoria. Increase of PSR speed	Infrastructure	Dec-25	Extent and timing of timetable change(s) not currently known
	Grand Union Trains - Phase 2: Extension of Phase 1 Cardiff - Paddington service westwards to/from Carmarthen with intermediate calls at Llanelli and Swansea. Rolling stock change to Class 802.	Timetable	Dec-23	Timetable changes expected - insufficient to qualify as an Event
	Cardiff Parkway new station	Infrastructure	Dec-23	Timetable changes expected - insufficient to qualify as an Event
	Extension of Filton Abbey Wood - Bristol Temple Meads service to new station at Henbury, incorporating a new station at North Filton.	Infrastructure Enhancements &	Dec-23	Timetable changes expected - insufficient to qualify as an Event
	Ashley Down new station on the Relief lines between Bristol Temple Meads and Filton Abbey Wood	Infrastructure	Dec-23	Timetable changes expected - insufficient to qualify as an Event
	Charfield new station between Yate and Gloucester	Infrastructure	Dec-23	Timetable changes expected - insufficient to qualify as an Event
	West Midlands New Stations - delivered in 2 stages: 1. between Walsall and Wolverhampton diversionary paths 2. Camphill lines, 3 new stations. 2tph New Street to Kings Norton.	Timetable, Enhanced infrastructure & Rolling stock	Dec-23	Extent and timing of timetable change(s) not currently known
	Crewe Hub - Independent Lines Signalling Renewals. TPR and line speed changes.	Infrastructure Enhancements &	Dec-23	Extent and timing of timetable change(s) not currently known
	Ripple Lane Nodal Yard	Enhanced infrastructure	Dec-20	Extent and timing of timetable change(s) not currently known
May 2024	South Western Franchise	New franchise	Aug-24	Extent and timing of timetable change(s) not currently known
December 2024	Core Valley Lines 2tph all routes on Sundays (network will be divested to TfW by this date but through running maintained onto national network)	Timetable & Rolling stock	Dec-24	Extent and timing of timetable change(s) not currently known
	The introduction of 1tph between Portishead and Bristol TM	Enhanced infrastructure,	Dec-24	Extent and timing of timetable change(s) not currently known
	Oxford Corridor Capacity Improvements Phase 2: Reduction in headways Wolvercote Jn - Aynho Jn, provision of higher speed crossovers at Oxford North Jn and provision of an additional west-side through platform.	Infrastructure Enhancements &	Dec-24	Timetable changes expected - insufficient to qualify as an Event
	East West Rail: Bicester Village – Bedford operation	Timetable, Enhanced	Dec-24	Extent and timing of timetable change(s) not currently known
May 2025	Northern Franchise	New franchise	Apr-25	Extent and timing of timetable change(s) not currently known
	East Anglia Franchise	New franchise	Oct-25	Extent and timing of timetable change(s) not currently known
	TRU Scheme W3 - Huddersfield to Ravensthorpe	Infrastructure	May-27	Extent and timing of timetable change(s) not currently known
	Crewe Hub - Crewe core station works Crewe station re-modelling. Major track layout and signalling works supporting HS2 end state requirements. Potential 49 day blockade at Crewe to be planned in WTT. Requires revised train plan at Crewe Station post commissioning.	Infrastructure Enhancements & Timetable	TBA	Extent and timing of timetable change(s) not currently known
	East London Line enhanced frequency to Clapham Junction	Timetable, Enhanced	Dec-22	Extent and timing of timetable change(s) not currently known
December 2025				
May 2026				
December 2026	Old Oak Common Station new station	Enhanced infrastructure	Dec-26	Extent and timing of timetable change(s) not currently known
	HS2 Phase 1	New Infrastructure, New	Dec-26	Expected to become an Event when details confirmed
	Transpennine Route Upgrade	Enhanced infrastructure	Dec-26	Expected to become an Event when details confirmed
May 2027				
December 2027	Western Rail Link to Heathrow	New infrastructure	Dec-27	Extent and timing of timetable change(s) not currently known
	HS2 Phase 2A	New Infrastructure, New	Dec-27	Expected to become an Event when details confirmed

Appendix D: Draft Capacity Planning Calendar of Events

Event Steering Groups status				
No.	**ESG**	**Status**	**Timetable(s)**	**ESG Chair**
2	Western	Active	May-22	Ben Sturgess
6	Southampton Freight Train Lengthening	Active	December 2021 to December 2022	Monica Gerber, Matthias Richter
7	Anglia	Not Active	Dec 21 & May 2022	TBA
8	MML	Active	May 2021	Drew Fuller
9	East Coast	Active	May 2022	Simon Leyshon
10	Wales & Borders	Active	December 2022	Ben Stugess
11	West Coast Main Line	Not Active	December 2022	TBA
12	East Midlands Railway - new rolling stock	Not Active	December 2022	TBA

Appendix E: Event Steering group (ESG) Activity

TT change	Title of Event	Status
Dec-20		
Anglia	Greater Anglia timetable recast and the introduction of new rolling stock - phase 3	No ESG however active timetable analysis workstream governed through the Industry PMO
May-21		
Midland Main Line	Introduction of a 6th hourly East Midlands franchise train service on the Midland Main Line to/from London (East Midlands Franchise, TSR 1). Capacity improvements between Bedford and Kettering/ Corby	Active ESG chaired by Eastern Region
Dec-21		
Western & South Wales	Introduction of Elizabeth line through services	Active ESG chaired by System Operator
Southampton Freight	Southampton Freight Train Lengthening (cross-regional impact Southern, Western, North West & Central and Eastern)	Active ESG chaired by System Operator
May-22		
LNE	New East Coast Main Line timetable, including two additional LDHS services per hour from London Kings Cross	Active ESG chaired by Eastern Region
Dec-22		
Wales	Wales & Borders timetable change - new and enhanced services including: • Cardiff Central - Cheltenham Spa: Current ~2tp3h intervals enhanced to 1tph frequency • Aberystwyth - Shrewsbury: Current mainly hourly intervals enhanced to 1tph frequency • Swansea - Shrewsbury (via Heart of Wales): Increase from 4tph to 5tpd plus extra evening trains at the ends of the line • Shrewsbury - Liverpool Lime Str (via Wrexham): 1tph, every other train extends to Cardiff (quantum increase between Chester & Cardiff only) • Manchester Airport – Bangor: 1tph, extended from Llandudno (quantum increase between Llandudno Jn & Bangor only) • Liverpool Lime Str – Llandudno: 1tph, attaches/splits from Shrewsbury – Liverpool Lime Str (quantum increase between Chester & Llandudno Jn only) • Aspiration for additional 1tph Ebbw Vale - Gloucester	Active ESG chaired by System Operator
tbc		
West Coast Main Line	West Coast Main Line timetable - new and enhanced services including: • WCML FL path additional services (ORR pending) • First Trenitalia enhanced Timetable on the West Coast as part of their franchise agreement	Inactive, IPG ongoing
Midland Main Line	Introduction of Hitachi Bi-mode trains (5-car x 24m) in diesel operation until completion of MML Programme KO1a - move to changes with TT impact not known yet.	Inactive

Appendix F: Our People Strategy

Figure 8.1 Network Rail People Strategy

Leading great people and great teams

A cohesive and consistent System Operator team will be one with strong health and wellbeing principles, that is fully engaged and led by people who are able to recruit, motivate and retain top talent.

Our focus on talent management, succession planning and inclusivity, places a large onus upon people managers to manage their teams well, keeping people motivated, engaged, developed and working to their full potential.

Appendix F: Our People Strategy

Network Rail leads the industry in planning for and developing leadership and skills to meet the future needs of the railway

- Our Leadership Teams will prioritise learning & development budgets to build capability 'to inform, analyse, advise and decide' into CP6. Specifically this will include building professional capabilities including: Relationship management, effective project management and business change.
- We will prioritse developmental investment by using four key themes - Safety/Regulatory, Leadership & Management, Strategic Imperatives and Professional Skills.
- We will ensure those identified in succession planning for senior/business critical roles have an up-to-date personal development and plan in place.
- Our organisation capability, roles and structure will be continually reviewed to address gaps in knowledge and skills, in both analytical and client roles, creating competency frameworks where applicable.
- We will consider and implement changes to our organisation and capability to ensure our plans are relevant to contextual industry challenges.

Network Rail encourages great leadership and is a place where there is mutual trust and respect between line managers and employees

- Our leadership and management training will be supported by local non-costed interventions to strengthen our people management capability and share best practice
- We will drive a culture of continuous improvement by ensuring targeted training of our managers and teams
- The System Operator Leadership team and the 'People Matters' group will ensure that our teams are aware of how they can become involved in making improvements through engagement champions, having regular [illegible] to share

Network Rail attracts, develops and retains dedicated and committed people

- We will work together to identify current and future resourcing needs, including any skills gaps, to create an effective workforce plan. This will be supported by a three year talent and succession plan within the function, focussing on critical roles and skillsets within the SystemOperator
- We will identify internal resources and external pipelines (e.g. make or buy decisions) so that recruitment can be more focused. This includes developing our graduate programme, continuing to grow the Operational Planner new starter training programme, providing career paths for our train planning roles, developing an early engagement strategy and building analytical capability.
- Support managers to identify 'potential' across System Operator which will feed into senior leadership discussions.

Appendix F: Our People Strategy

Making the System Operator a great place to work

We will focus on attracting diversity of talent; supporting staff who wish to work flexibly to enable them to balance caring or parental responsibilities with a fulfilling and meaningful role; and supporting those with additional needs so all are able to contribute effectively.

Our leadership culture will be an open and approachable one, where our leaders inspire and support their teams to be successful.

As a result of COVID-19 what normal work looks like has changed significantly during 2020 and will continue to do so. Working in an agile way during the coronavirus has been productive and effective for the majority of our staff. We will continue to empower staff, where appropriate, to prioritise their work, adjust their working hours and work from home.

This agile style of working should continue for most staff but not all as we recognise that whilst not everyone has benefitted from homeworking, many staff may want to continue to keep some elements of agile working as we move forward thru CP6. moving forwards.

Appendix F: Our People Strategy

Network Rail is a place people are proud to work

- Leaders within the System Operator provide opportunities for our people to engage with them on a regular basis, and across teamsWe will regularly communicate the System Operator strategy and vision to our people, including achievements, changes and future direction
- We will regularly communicate the System Operator strategy and vision to our people, including achievements, changes and future direction
- Continued use of employee engagement surveys ('Your Voice') and leadership of action plans throughout the function, supported by the People Matters representative group

Network Rail prioritises mental health and employee wellbeing, and supports and develops resilience in its people

- Our Health, Safety & Wellbeing group will develop a plan to build awareness of health & wellbeing issues, opportunities and resources across the function through a programme of regular engagement and communications
- Health & wellbeing will be a feature of our regular 1to1 meetings throughout our function, investing in our line management capability toconduct these conversations

Network Rail's environment enables everyone to reach their full potential

- We will regularly review our people capability throughout the organisation, assessing performance, behaviours and potential
- We will review and maintain a succession plan for business critical and key senior roles over a three year horizon, supported by personal development plans
- Our leaders will discuss development including; skills, capability, experience;and behaviours, to support training and career development
- We will embed the 'Professional Head' roles for key System Operator areas, which will provide technical leadership and deploy an appropriate framework for the profession, sponsoring competency frameworks and development initiatives

Network Rail is one of Britain's best employers

- Our attraction strategy will be regularly reviewed to increase brand awareness, supporting our teams and representative groups to build employee advocacy
- We will design and implement a graduate training scheme with rotational placements in Capacity Planning, Programmes and Strategy & Planning to start in September 2019
- We will develop a System Operator apprenticeship programme to be in place during CP6
- We will actively encourage our teams to support our communities by volunteering with registered charities or Network Rail Community lead projects

Appendix F: Our People Strategy

Reflecting the society that we serve

We recognise that there is still work to be done before the diversity of the organisation reflects the society that it serves. Our people strategy includes a continued focus towards becoming a more respectful, inclusive, diverse and welcoming organisation; where every employee feels respected and valued for who they are and what they can bring to the System Operator. This is supported by a representative group focussed on diversity & inclusion

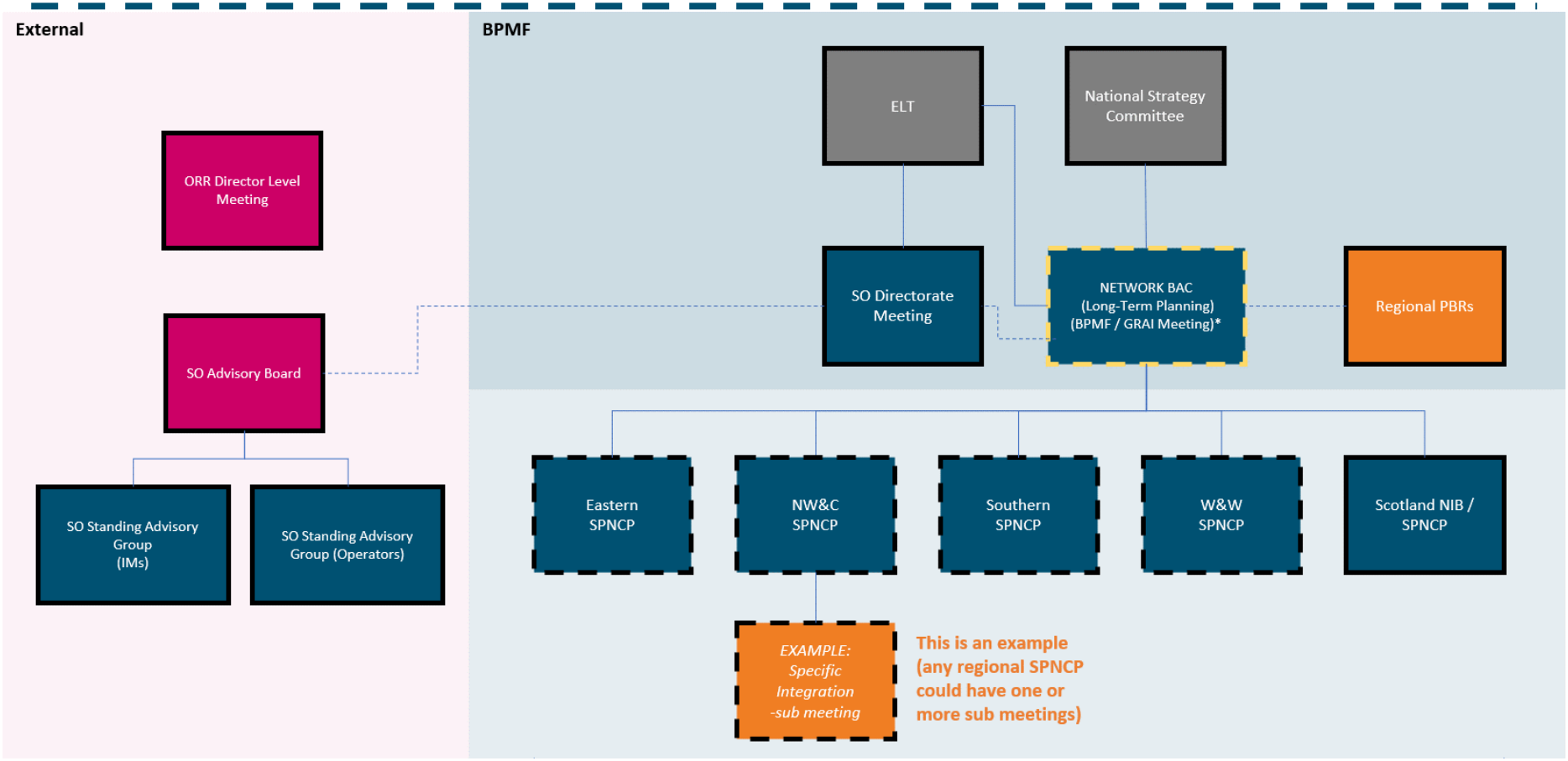
Network Rail is a place people feel safe, looked after and treated with dignity and respect

- We are committed to encouraging agile and flexible working within our teams, supporting our managers and sharing best practice
- Our leaders will encourage their teams to bring their whole selves to work, recognising everyone as unique talent
- We will develop a resourcing strategy that widens our talent pool, including early engagement activities in schools and universities and improves our brand awareness

Network Rail is leading the way in making the railway industry more diverse and inclusive

- The People Matters representative group will work with the Leadership team to promote our D&I strategy and activities that encourage collaborative working and increased engagement with diversity topics within System Operator and wider Network Rail.
- We will create an inclusive recruitment strategy that attracts diversity into System Operator, for example through early engagement, removing gender bias from adverts, and advertising on diverse platforms
- Our training will include capabilities such as delivering Diversity Impact Assessments, and our teams and line managers will be provided focussed training to support a diverse and inclusive environment
- We will promote and support the internship scheme, which forms part of a wider initiative to increase the amount of CAME and female talent in Network Rail, and promote Network Rail's diversity strategy.

Appendix G: New Governance Structure



Appendix H: Assumptions

Reference	Topic	Assumption	Areas of spend impacted
1	Government	There is no significant change in national or devolved government administration, strategy or policy.	All aspects of the plan
2	Network Rail structure	System Operator remains part of Network Rail, albeit separately regulated.	Opex
3	Industry structure	This plan does not take into account changes related to rail reform that may be implemented as a result of the Williams Review, if changes are implemented this will have to be reviewed.	All aspects of the plan
4	Operational Model	The existing System Operating model and existing framework is fit for purpose and there is no significant changes to these accountabilities. System Operator and its interfaces with Route businesses do not materially change, and the number of Routes remains as at January 2020.	Opex
5	Activity Level	Our organisation design and size and proposed expenditure is sufficient to deliver our expected commitments We have assumed any vacancy gap will not be material enough to undermine the delivery of these commitments.	Opex
6	Activity Level	Enhancement activity will be of a level commensurate with the funding set out in the Statements of Funds Available and from other third party funders, and with the delivery of HS2 in line with current plans; continuing development of Crossrail 2 and NPR; and development of the "pipeline" for CP7.	Opex and Capex
7	Funding framework	Major Projects will continue to be separately funded in CP6 (e.g. Northern Powerhouse Rail, East Midlands Hub), and the Investment Decision Framework (or equivalent) will be used to govern associated enhancement spend.	Opex and Capex
8	Funding framework	The funding of enhancements will follow the framework described in the MoU between DfT and Network Rail, and the TS Capital Investment Strategy.	Capex
9	Activity Level	We have not included additional resource for third party funded proposals. If additional resources are required we will require additional funding to secure these resources and we are assuming the third party promoter will fund this	Opex
10	Activity Level	The forecast calendar of events is, and known timetable activities are, as stated in this appendix. It is known that the continued impact of COVID-19 is causing the industry to consider further changes to planned timetable change in 2021/22 and potentially into 2022/23. Future changes to the calendar of events may result in the need for additional funds to be made available for System Operator costs. The necessity for four timetable changes during 2021 reduces substantially the industry's development period for May 22 and may lead to the size of that timetable change needing to be capped	Opex

Appendix H: Assumptions

Reference	Topic	Assumption	Areas of spend impacted
11	Activity Level	The capacity of our timetabling capability is finite, and it is not always as simple as adding more planning resource to increase levels of timetable change. Our plan assumes delivery of timetable activity commensurate with the Calendar of Events, the submission of an appropriate Bid Quality from Operators and accommodation of a reasonable level of change once the timetable is established. Should levels of change be greater than we have assumed, we may require further funding to expand the capacity of our timetabling capability, or recognition that the performance targets may be subject to change in line with future validation levels.	Opex
12	Deliverability	Some elements of the System Operator portfolio of capital investments remain dependent on the availability of Infrastructure Capability data for the rail network and necessary traction data. The ability to migrate a significant proportion of regional geography across to modernised planning functionality including use of Dynamic Running Times (DRTs) and conflict detection in TPS is dependent on this. Delivery is being taken forward in conjunction with Network Services. Depending on the speed of Network Capability Model development this is likely to require a phased approach over CP6 and CP7. DRT delivery is also partly dependent on Train Operator support and systems delivery.	Capex
13	Deliverability	There will be sufficient procurement resource available within Network Rail to support our procurement needs.	Opex and Capex
14	Performance	CP6 incident and minute calculation methods (for example, delay per incident ratios and delay thresholds prior to creation of a delay incident) do not change and affect delay incident forecasts or targets. The impact of COVID-19 has not been included into future targets.	Opex
15	HS2	HS2, and other new lines, progress according to current publicly planned timescales and assumptions, with no fundamental change to funding model.	Train Performance
16	Funding framework	Strategic planning and enhancements development activity undertaken in support of non-DfT/TS funded programmes will be fully recoverable.	Opex
17	Misc.	Print / publication costs remain the same (quantity of print) owing to the reluctance or inability of the industry to invest in hand held technologies.	Opex
18	Deliverability	The opex funded improvement programmes are deliverable within the existing headcount.	Opex
19	Charging assumption	Parties within Network Rail will charge at Oracle Time & Labour hourly rates. External rates as set out by the ORR will apply to external parties. Where Agency resource is utilised at day rates greater than the Oracle Time & Labour rates a central financial adjustment will be made to the relevant project to hold Opex cost centres neutral to the variance	Capex and Opex
20	Charging assumption	There will be no 'cross-charging' between System Operator teams unless for a third party funded project.	Opex

Appendix H: Assumptions

Reference	Topic	Assumption	Areas of spend impacted
21	Charging assumption	Capacity planning Opex budget is set at a level sufficient to deliver outputs in line with the Calendar of Events that is known about at the time of authoring the Strategic Plan. Material changes to the enhancement and renewals programmes which may require re-work of capacity studies or timetable development activity, may require additional funding.	Opex
22	Corporate assumption	Accommodation, equipment, and other incidental costs are on the same scale as previous years	Opex
23	Funding framework	Capacity studies in support of engineering access are recoverable against projects requiring studies.	Capex and Opex
24	Stakeholder Engagement	Where requirements for stakeholders and other parties to provide data exists, this will be available to us when required.	Opex
25	Cost assumption	In developing an early stage cost estimate for the migration to an industry planning platform, we have assumed that this constitutes wider industry use of TPS, including adaptation of hardware, servers and support costs for wider industry use.	Capex and Opex
26	Activity Level	The resourcing and associated consultancy funding for the Whole Industry Strategic Plan team is adequate for the deliverables required to date	Opex
27	Industry structure	Any changes required from the Network wide and/or regional Whole Industry Strategic Plan will not impact System Operator until CP7 and beyond	Opex
28	Activity Level	Where activities are delivered through third party consultancy or agency resource the quality of output is unaffected	Capex and Opex
29	Cost Assumption	Funding obtained through recoverable roles are achieved as per our forecasts.	Capex and Opex
30	Cost Assumption	Use of forecasts to reflect inflation (CPI)	Capex and Opex
31	Deliverability	Delivery of the System Operator portfolio remains dependent on support and engagement of the Operator community in adoption and exploitation of modernised timetable planning functionality.	Opex and Capex

Appendix I: Glossary of terms

ARS	Automatic Route Setting	ITPM	Industry Timetable Planning System	SBP	Strategic Business Plan
APP	Access Planning Program	ITPS	Industry Timetable Performance Modeling	SNTB	Sub National Transport Body
BVR	Better Value Railway	ITTS	Industry Timetable Technical Strategy	SO	System Operator
CAPEX	Capital Expenditure	LNW	London North Western route	SoS	Secretary of State
CRC	Class Representative Council	LTP	Long Term Planning	SoAR	Sale of Access Rights
CMSP	Continuous Modular Strategic Planning	LTPP	Long Term Planning Process	SOLT	System Operaotr Leadership Team
CoP	Code of Practice	MC	Midlands Connect	SPF	Strategic Planning Framework
CP5	Control Period 5 (2014-2019)	MD	Managing Director	SRIPAG	Scottish Rail Industry Planning Advisory Group
CP6	Control Period 6 (2019-2024)	MoU	Memorandum of Understanding	SSPG	Scottish Strategic Planning Group
CP7	Control Period 7 (2024-2029)	MSP4NR	Managing Successful Programmes for Network Rail.	STP	Short Term Planning
D - x	Day - where x represents the number of days before a timetable change is implemented.	NAO	National Auditing Office	TDNS	Track Decarbonisation Network Strategy
D&I	Diversity and Inclusion	NOSC	Notice of Significant Change	TF	Transport Focus
DIP	Data Imporvement Program	NPR	Northern Powerhouse Rail	TfL	Transport for London
DfT	Department for Transport	NR	Network Rail	TfN	Transport for the North
ELT	Executive Leadership Team	NWT	New Working Timetable	TOC	Train Operating Company
ESG	Event Steering Group	OBR	Office of Budgetary Responsibility	tph	Trains per hour
ETCS	European Train Control System	OpEx	Operational Expenditure	TOVR	Train Operator Variation Request
ETT	Emergency Timetable	ORR	Office of Road and Rail	TPRs	Timetable Planning Rules
ERMA	Emergency Recovery Management Agreements	PESTLE	Political, Economic, Societal, Legal, Environmental.	TPS	Train Planning System
EWR	East West Rail	PPF	Putting Passengers First	TRIP	Timetable Rules Improvement Programme
FNPO	Freight and National Passenger Operator Route	PfC	Proposals for Change	TS	Transport Scotland
FOC	Freight Operating Company	PMO	Project Management Office	TT	Timetable
FSI	Future Services Integration	RDG	Rail Delivery Group	TW-{x}	The number of weeks prior to a timetable week commencing.
GRAI	Governence, Risj, Assurance, Improvement	RFP	Rail Franchising Professional	VfM	Value For Money
GRIP	Governance for Railway Investment Projects	ROSCOs	Rolling Stock Owning Companies	WBPF	Whole Business Performance Framework
HS2	High Speed Two	RJMT	Rail Junction metric Tool	WCML	West Coast Main Line
IIA	Initial Industry Advice	RSSB	Rail Safety and Standards Board	WebTAG	Transport Analysis Guidance
IM	Infrastructure Manager	RYR	Restoring Your Railway	WISP	Whole Industry Strategic Plan
IRP	Integrated Rail Plan	SAG	Stnding Advisory Groups	WTT	Working Timetab;e
				WSM	Whole System Modeling