

# Eastern Regional Strategic Plan Control Period 6

***FINAL***

*February 2021*

## Eastern Region Strategic Plan

# Foreword

The onus on the railway in the coming years has perhaps never been greater and it has never been more important to deliver for passengers and freight users.

The focus will be particularly intense in the Eastern Region. Not just because our routes connect some of the country's biggest cities and link London with the north and Edinburgh. But also, because we will be investing a once-in-a-generation £9.7bn in renewing and enhancing the railway across our region.

As we invest that money, we must ensure we drive productivity and efficiency from every penny, given the pressure on the country's finances. And we must make sure all our efforts go to towards delivering what passengers and freight users really want.

To do that, we will be enabling and empowering our people to take the right decisions for passengers and freight users. They will be working within four passenger and stakeholder facing routes: North & East, East Midlands, East Coast and Anglia – bringing decision making closer to the communities they serve.

Underpinning them and investing the bulk of the £9.7bn of investment, is the new Eastern Region Capital Delivery, which will promote productivity and efficiency and deliver work at pace.

We are already delivering tangible benefits to make the railway work better for passengers when they are ready to return to rail, by improving stations and enabling more services. On the Midland Main Line, the biggest investment in the line since it was built in the 19th Century is nearly complete. The new electrification on the line will deliver cleaner, greener services and increased speed and reliability.

On the famous East Coast main line, we are working at pace on a £1.2bn upgrade to deliver increased capacity and better reliability. In Anglia, we are completing the infrastructure works for the Elizabeth Line and the introduction of replacement rolling stock for Greater Anglia. On the North and East, preparation works are accelerating on upgrading the TransPennine Route between York and Manchester – one of the most anticipated infrastructure improvements in the country.

In making these improvements, we have been delivering our CP6 plan efficiently. It is our responsibility to taxpayers to work efficiently and deliver the best value possible. We had set ourselves an ambitious target of £1,018m in savings across operations, maintenance and renewals in CP6. By driving efficiency across our business, we have delivered £117m in Year 1 and are expected to achieve c.£186m in Year 2 vs a target of £165m.

Our plan will enable the region to continue to deliver high levels of train performance. To achieve this, we are embedding new performance management systems and focusing on building resilient timetables.

We will also continue a relentless focus on the safety of our people and our passengers, and the wider public. During CP6 we will deliver a continued reduction in working time lost to injuries. This will be achieved through our focus on key frontline safety programmes such as safe & effective working, and by bearing down on the main causes of accidents.

We will provide our frontline staff with the right resources and working environment to succeed and empowered them to do the right thing for passengers. We are also putting in place a strategic workforce plan to ensure we carry on delivering for passengers into the future. We will exit CP6 with a more diverse, inclusive and empowered workforce.

Finally, we must also deliver on our Sustainability strategy as published last year ensuring rail, and Eastern, plays its role in tackling the climate crisis.

Our focus on putting passengers will allow Eastern to deliver for the people who rely on us.



**Rob McIntosh**  
Regional Managing Director



## North & East

The new North & East Route takes in Yorkshire's biggest cities – including Sheffield and Leeds – and vital links over the Pennines and into the North East.

In advance of 2024, we have much to achieve working with parties across industry to improve the train service we provide to passengers. The arrival of new fleet has gone some way to improving the passenger experience, but it is vital that we compliment these new trains with infrastructure that doesn't fail.

Our focus on the passengers will drive us to change how we access and maintain the railway, no small challenge given the volume of services we enable across the North & East.

The above challenges are set against a backdrop of strong support for rail across government which will mean that alongside the £2.9bn Transpennine Route upgrade, we will need to support our local communities in providing a train service that meets their needs.



**Matt Rice**  
Route Director

## East Midlands

We are nearing completion of the current phase of the biggest programme of improvements in the Midland Main Line (MML) since the line was completed in 1870.

In the year ahead we'll bring online new infrastructure which supports more seats, quieter trains and more environmentally-friendly trains as well as a more reliable railway for passengers and our freight customers.

May 2021 will see a wholesale change in the timetable that cuts journey times between London and Derby, Leicester, Sheffield and Nottingham. It'll also introduce more frequent, electrified services between London and Corby.

We are working ever more closely with our train operating colleagues at East Midlands Railway (EMR), CrossCountry and GTR Thameslink to maintain better train performance and to carry out improvements at our stations to make them more modern and welcoming for passengers.



**Gary Walsh**  
Route Director

## East Coast

The East Coast Route includes the East Coast Main Line (ECML) which connects the capitals of England and Scotland via Yorkshire, York, Durham and Newcastle. The route of the former Flying Scotsman and the Mallard, it now carries over 20 million passengers a year.

In CP6 we are investing £1.2 billion in the East Coast Upgrade Programme to deliver a new track layout on the approach to London King's Cross station, a new terminating platform at Stevenage for London suburban services, a dive-under at Werrington to remove conflicts with freight services, and an upgraded power supply to enable more, faster, quieter and cleaner trains to run. This work will provide 10,000 extra seats a day on long-distance services as well as faster journeys and increased reliability for passengers across the route.

We know we can still do more to consistently improve journeys for the passengers and freight users who rely on us. That's why we will empower our people and encourage innovation on the route and more collaborative working with our TOCs through new arrangements like the East Coast Partnership. Colleagues are introducing smarter and safer ways of working that allow us to deliver a more reliable rail service that our customers can depend on.



**Paul Rutter**  
Route Director

## Anglia

We are working hard to put passengers and freight first in all we do, and we are determined to improve the reliability and punctuality of train services.

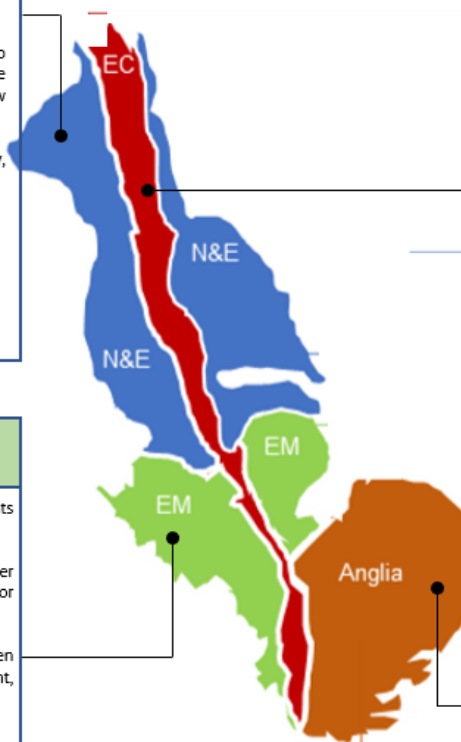
Between 2019 and 2024 we are investing £2.2bn in running, renewing and maintaining the railway infrastructure across the route. These include major re-signalling in Cambridge and Clacton, our extensive programme of overhead line, structures and track renewals and the refurbishment of Ilford and Romford stations as part of Crossrail. The completion of these major projects will enhance passenger accessibility, improve the reliability of our infrastructure, reduce delays for our passenger and freight users as well as improving safety.

We are continuing to develop plans in the Ely area to increase capacity and run more services for passengers and freight, and are working local authorities to build new stations in Chelmsford and Cambridge to increase accessibility from those areas.

Passengers, freight users and communities are at the heart of everything we do. Everyone in Anglia route will be working towards a better railway for them, our region and our economy.



**Ellie Burrows**  
Route Director



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# 1 Executive Summary

## 1.1 Context of the Eastern Region

The Eastern Region is one of the largest Regions in Network Rail's new devolved structure. It combines the former London, North Eastern and East Midlands Route (LNE&EM), and the Anglia Route.

The Region covers a broad stretch of England from the Essex Coast to the Scottish Border, and covers the key urban conurbations of London, Leeds, York, Newcastle, Cambridge, Derby, Leicester, Nottingham, Norwich and Sheffield. The Region is a diverse mix of commuter routes serving these cities as well as long-distance high-speed services on the East Coast Mainline. The Region is also the backbone of the UK freight rail network, connecting UK cities to major ports at Felixstowe, Immingham, Harwich and the Port of London.



Figure 1: The economy of the Eastern Region

## 1.2 Our Vision

The Eastern Region fully identifies with Network Rail's vision as it is our main priority to **get people and goods to where they need to be while supporting our country's prosperity.**

## 1.3 Our Key Strategic Objectives

The Eastern Region has identified six strategic objectives that will be delivered through building progressive capabilities across people, process and technology. These six strategic objectives are at the centre of what we do and align with the six strategic themes set up at Network Rail Corporate level. The six strategic objectives are focus on:



Figure 2: Eastern Six Strategic Objectives

## 1.4 The Route and Regional relationship

Network Rail is changing, as a result of various initiatives to bring track and train closer together, improve the efficiency of project delivery and enhance train performance.

The cornerstone of this is our Putting Passengers First (PPF) programme, an organisation-wide initiative to ensure we have the right people in the right parts of the organisation to deliver an on-time railway.

A key objective of PPF is to increase customer focus within the Region, encompassing passengers and NR's TOC and FOC customers. It also means improving the way we manage relationships with wider

- Enhancing safety for both passengers and workforce
- Providing a world-class service that our customers can rely on
- Adapt to our customer needs
- Provide an efficient, Value for Money railway
- Develop and empower a skilled and diverse workforce and;
- Shape the long-term development of our Region around our customer and funders needs.

Figure 3: Eastern Region within the UK



stakeholders in the industry, including local and regional bodies, passenger groups, our supply chain and external stakeholders.

The PPF programme has enabled the Eastern Region to create three new smaller, customer focused Routes from the former LNE & EM Route operating alongside the established Anglia Route business. These are the East Coast (EC), East Midlands (EM) and the North and East (N&E) Routes.

Each Route is led by a Route Director, each of whom owns relationships with 3-4 train operators. This has created a single point of contact for our TOC and FOC customers to jointly address the challenges and opportunities that arise on each part of the network. It enables more customer focused planning of maintenance, renewals and enhancements in line with customer priorities.

Each Route has – as a minimum – dedicated operations, maintenance, asset management, safety and customer teams which will mean that Route Directors have under their direct control the key levers that they need to influence better outcomes for passengers and customers.

In addition to our new Routes, a new Eastern Region Capital Delivery Directorate has been set up which is now responsible for the planning and delivery of infrastructure projects within the Region. This is a significant change from the previous model whereby the Infrastructure Projects function within Network Rail was ‘one step removed’ from the interface with our customers and passengers, whilst planning of capital works was not as integrated as it could be.

Ultimately for operators, passengers, local communities and our funders, these changes allow the Eastern Region to have more control over schedule and cost of the work we deliver, because it allows the Region to plan its delivery of the CP6 capital portfolio in a more integrated way.

**Figure 4: Eastern Region in numbers**

### Eastern Region in numbers

- Over 520 million annual passenger journeys
- Three managed stations at Leeds, King's Cross and London Liverpool Street
- 6,042 route miles (31.2% of national)
- 3,400 passenger services every day and 15 train operators
- 1,057,462 tonnes of freight moved a week with 1,742 freight movements – the highest of all regions
- 2,614 level crossings
- 9,278 bridges
- 9,262 signals

## 1.5 Putting Passengers First

### 1.5.1 Changing our Business

Tranche 3 of PPF re-organisation within Eastern went live on 12th October. This included transfers into the Region from other functions including Network Services, Technical Authority, System Operator and Property and the first phase of the maintenance boundary change across the North East and East Coast routes. PPF Tranche 3 constitutes a step further towards fully implementing a devolved operating model to enable local level decision making and accountability within our four new Routes.

## 1.5.2 Eastern Routes - Overview

With our 15-train operator partners we enable more than 520 million passenger journeys every year and move more than a million tonnes of freight a week – the highest of all regions. Improving our rail network and getting more people where they need to be on time makes a massive difference to the UK economy, helping bring jobs, homes and prosperity.

Between 2019 and 2024 we are investing £9.7bn improving the railway across Eastern – a once-in-a-generation investment. By working more closely together across our region with our train operators and supply chain, we will be making some transformational changes to our railway, many of these are already underway.

## 1.5.3 North and East

The North & East Route is focused on the delivery of inter-urban commuter services in the North East of England, with the key principle of operational excellence in both timetable and service delivery.

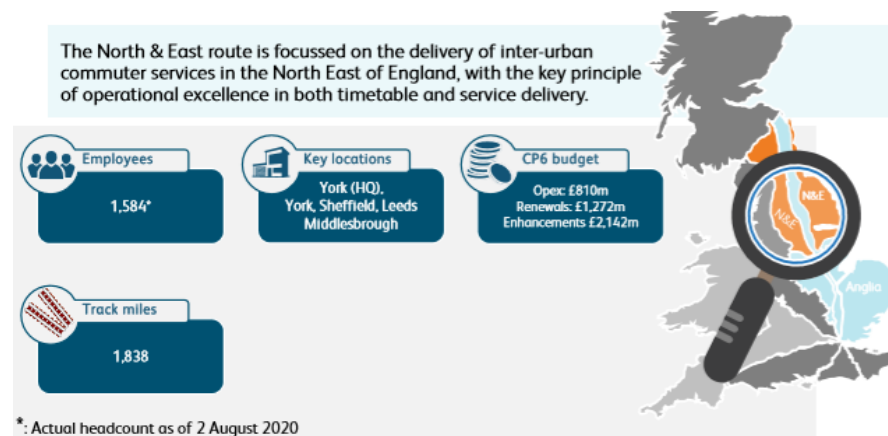
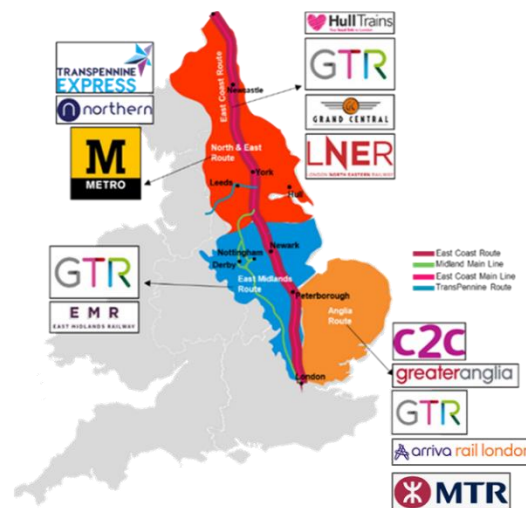


Figure 5: Route overview – North & East

Our key investments and priorities include:

- Lead in the development of new technology to allow proactive asset management.
- Working together as one team with our TOC customers to transform the passenger experience at Leeds Station
- TransPennine Route Upgrade – Designed to help unlock the congested route between York and Manchester, bringing benefits to communities across the north of England.
- Station improvement schemes – Improve capacity and facilities at Leeds, Middlesbrough and Sunderland.
- Signalling upgrades – Works located at Beighton Woodhouse, Durham Coast and Ferrybridge.



## 1.5.4 East Coast

The East Coast Route is focussed on the high-quality provision of long distance, high speed train operations from the Scottish Border to London.



Figure 6: Route overview – East Coast

Our key investments and priorities include:

- East Coast Main Line Upgrade –new signalling and track layout at King’s Cross, power supply upgrade, turn back at Stevenage and Werrington dive-under. Once complete in 2021 it will enable more trains to run more reliably and accommodate the new Azuma fleet
- King’s Cross station –a programme of small, targeted improvements in response to the National Passenger Survey and other feedback from passengers.
- Resilience –a programme of work to improve how our infrastructure responds to extreme weather.

### 1.5.5 East Midlands

The East Midlands route is a key enabler to the development of a deep alliance with the new franchise holder East Midlands Railway.

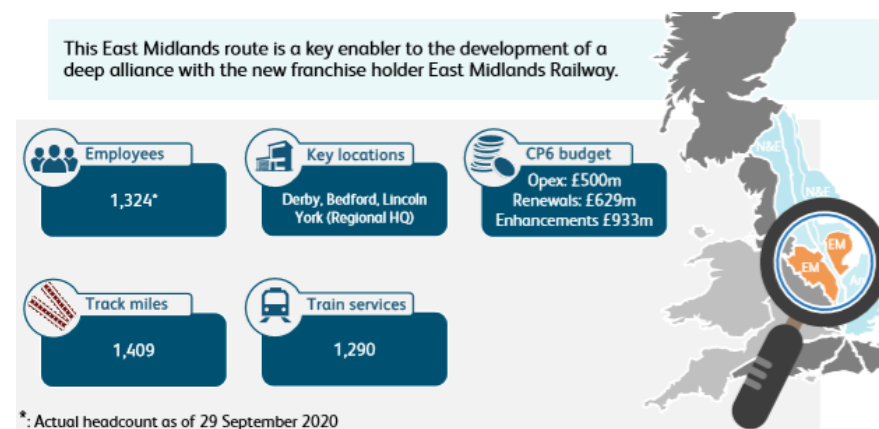


Figure 7: Route overview – East Midlands

Our key investments and priorities include:

- East Midlands Alliance –Develop a deep alliance with the Abellio group, who run our new partner East Midlands Railway, and drive closer collaboration by delivering 106 joint tasks with the ultimate aim to put passengers first.
- New fleet introduction–May 2021 introduction of the 6th long-distance high-speed path on the MML and up to 22 trains per hour through the core.
- Midlands main line upgrade –Extensive programme of works, including longer platforms, track electrification, station upgrades and longer trains designed to provide a more reliable and quicker service

### 1.5.6 Anglia

The Anglia Route services the high-density commuter network into and out of Liverpool Street Station.

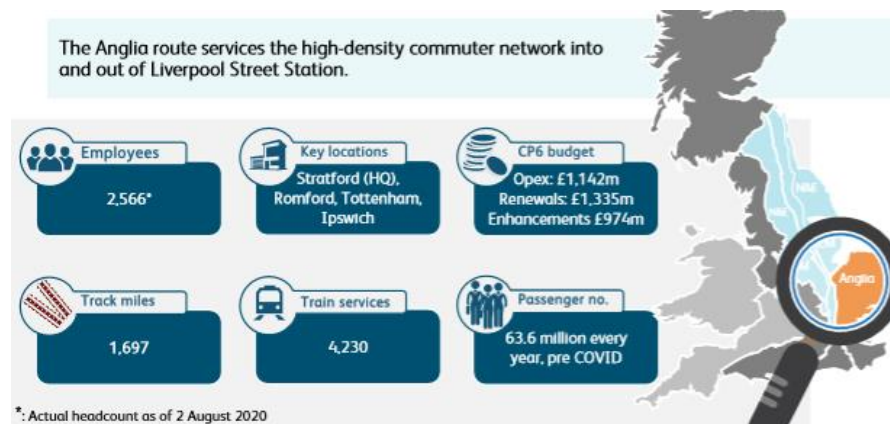


Figure 8: Route overview – Anglia

Our key investments and priorities include:

- Crossrail – Responsible for the design, development and delivery of the parts of the route that are on the existing network, running above ground through outer London, Berkshire and Essex.
- Clacton and Colchester re-signalling programmes – Replacing Victorian equipment with modern computer-based signalling, complimenting Greater Anglia’s new fleet of trains and delivering a better journey experience for passengers.
- Liverpool St roof renewal – Refurbishment project to keep our historic stations maintained for future generations; a critical part of our role as the custodian of the railway.
- Ely area capacity enhancement plan – Plan to improve connectivity and reliability for passenger services, and meet the demand for more rail freight to support sustainable, long-term economic growth.
- Thameside overhead line renewal programme – upgrading the Great Eastern main line’s overhead electrification system to make journey’s more reliable in the summer months.

### 1.5.7 Train Performance

The Eastern Region and its Operators are facing some considerable train performance challenges in the early years of CP6. This has been as a result of well documented delayed delivery of infrastructure and issues with the introduction of new rolling stock.

More recently, the challenges of the COVID-19 pandemic, has created a level of instability in train service plans and the timetabling process throughout 2020 that will continue through early 2021. This will continue to challenge the industry moving forward, with both long-term plans and short-term interventions necessary to enable the continued operation of a reliable train service with the necessary confidence of available train crew resources and resilience of the timetable.

Some of the initiatives we have been undertaking in CP6 in order to improve train service performance are set out in this chapter and this has been supported by a focus throughout the pandemic to identify how the train service can be ‘built back better’ to deliver to passengers and freight end-users.

We have joint plans in place with train and freight operating partners to enable us to build on our current day-to-day performance, looking at all aspects of how to prevent delays and respond more quickly to resolve them when they do occur. We are also committed to proactively working with stakeholders in the access planning process to inform how the plans are to be delivered in 2019-2024, these include:

- Managing capacity better by embedding lessons after the May 2018 timetable change helping resolve some of the timetable issues that emerged after May 2018.
- Formalising our approach to Performance improvement by further developing our implementation of RM3P principles, including formalised training and consistent methods of reporting to allow for continuous improvement of the way we capture, document and respond to delay incidents.
- Improving operational efficiency by consolidating staff at Route

Operations Centre (ROCs) in York.

- Continuing joint operations initiatives with TOCs to improve coordination and train control. In Anglia we will have integrated signalling, and control for both TOC and Network Rail on a single operating floor with c2c.
- Renewing lineside fencing and continue to look for innovative methods to help control external trespass such as using proactive measures in partnership with the BTP and local organisations.
- Deploying new technology, and working more closely with Operators to better utilise industry data to improve understanding of causes of performance issues and improve incident response times.
- Reducing delays attributed to fleet performance by working with our TOCs to help resolve teething issues with new rolling stock, and to support alignment between industry resources as timetables change.
- Engaging in a widespread programme of vegetation clearance across the region to reduce the occurrence of asset and track delays related to vegetation.
- 'Build back better' focuses on each Eastern route, ensuring that as the train service returns, the timetable and operational delivery of the network is more resilient and reliable for passengers and freight end-users.

### 1.5.8 Efficiency

Our financial performance so far up-to P06 CP6 Year 2 indicates that we have been delivering our CP6 plan efficiently. The combined Anglia and LNE&EM Route Strategic Plans set out efficiency targets of £876m across CP6. We have so far delivered £117m in Year 1 and £57m so far in Year 2.

Headwinds in FY21 have increased due to the COVID-19 global pandemic, this is having a significant impact on the OPEX headwinds as we put measures in place to protect the safety of our staff and passengers through hand sanitiser, covering sickness and putting procedures in place to adhere to the social distancing rules in our managed stations, this is currently £17.3m, in addition there are £19.7m

of headwinds across our Renewals portfolio due to COVID-19 impacts.

### 1.5.9 Stations

Improving stations for passengers across the Eastern Region is a shared priority. This is to enhance passenger experiences, improve capacity for the Routes through new stations and support connectivity across local communities. Stations have also been the shop window for a lot of the industry's work to combat the impact of COVID-19 to keep both our staff and passengers safe. Our three managed stations in Eastern have all adapted the way they are run, with one-way systems, additional cleaning regimes, providing anti-bacterial products and masks, as well as clear information and guidance on social distancing and how to stay safe.

An example of this, is the management of Kings Cross Station, where a number of joint COVID-19 plans with our stakeholders have been successfully introduced. These included initial use of one-way systems, updated COVID-19 station signage and floor vinyl's, information screens and posters, with guidance for everyone using the station.

It also involved enhancing the cleaning regime, provided hand sanitisers and upgraded our toilet facilities to touch free where possible. Finally, it introduced highly trained Journey Makers, a role put in place to support our passengers while also ensuring the station is a safer environment to be.

The following examples outline a few other station initiatives that have been rolled out across the Region to support these outcomes:

The transformation of Leeds station is well underway. This is improving the passenger experience as well as providing capacity for more and longer trains to operate from the city.

**Figure 9: The remodelled entrance at Leeds station opened in December 2019**



For over a year, Network Rail has worked to install a new, transparent roof over the main concourse to replace the old, wooden and dark structure. The new roof allows natural light to flood the station, brightening up the area

and making the station feel more open. The new roof has used the same design as the southern entrance and has a modern look befitting of the city.

Additionally, the development of Platform Zero at Leeds Station will help to reduce train congestion and support the city's growing demand for rail travel, given Leeds is the North's busiest railway station. The work is ongoing with expected completion by early 2021 and regular updates provided to those impacted.

Liverpool Street Station removed the cost to use the public toilets last April which fulfilled Network Rail's wider commitment to make toilets 'free to pee' across all its 19 managed stations. In 2020, the toilets were completely refurbished to improve the passenger experience at the station. As well as introducing cutting-edge interior design, the new toilets will help to reduce the spread of coronavirus. The flushes, taps, soap dispensers and hand dryers are all touchless, while the sinks have an anti-viral coating.

Other improvements to London Liverpool Street include the addition of water fountains to encourage environmental sustainability practices and greater awareness of both hidden and visible disabilities. We have also introduced recycling coffee cup facilities and installed eco-friendly seating. The number of seats available at the station has increased by 98 per cent.

## 1.6 What will Passengers see

Eastern region will be a different experience for passengers by 2024. In London, Elizabeth Line services will be transforming cross-London travel for millions, and our managed stations King's Cross and Liverpool St will be offering an improved passenger experience.

Modern signalling systems will be enabling our people to better manage trains like air traffic control and reduce signal failures and faults that cause delays. Train operators will be operating new fleets of trains that will be running across the region, enabling more comfortable journeys with modern services such as Wi-Fi.

We aim to have upgraded or removed level crossings and continued our work with local communities and British Transport Police to improve the safety of everyone who connects with our railway, reducing trespass and keeping trains running.

We will continue to work with our stakeholders to develop projects to build new stations such as those proposed in Soham and Cambridge South, and evolve plans to create greater capacity for increased freight and services at Ely and Haughley Junction in Suffolk.

From late 2020, up to 50 % more seats will be available during peak times between Bedford and Corby. Benefits in terms of reliability and capacity will be felt the length of the Midland Main Line. On the East Coast main line, passengers will notice quicker, more reliable journey times, improving choice and reduced congestion on the line.



**Figure 10: The Elizabeth Line will offer through services along the existing Great Eastern Mainline through Central London to Reading and Heathrow Airport**

### 1.7 Engaging our stakeholders

As part of our engagement process for CP6, we invited groups of stakeholders to take part in a series of workshops and meetings to share plans and gain valuable feedback, and where possible, changes to the plan were made.

As we progress through CP6, we will continue to engage with our stakeholders, recognising the need for regular and effective engagement, listening exercises and a mechanism for feedback. The Customer and Communities Section of this document sets out the structures and forums we have put in place to improve the way we engage with stakeholders during this Control Period.

### 1.8 Our people

Our workforce will also see positive changes to their working environment and training, helping them stay safe and become the best they can be to help deliver for passengers and freight users.

Across Eastern, our Safety Programmes are helping reduce the risk of our people being hurt while on track by investing in our Track Worker Safety programme. We're also investing in improved protective equipment and new technology designed to keep track workers safer. Additionally, more safety and wellbeing programmes aim to help keep our staff fit and stay mentally well.

We have diversity and inclusion strategies that set out how we will make Network Rail a better place to work for everyone. We will continue to run recognition excellence schemes, recognising individuals and teams who have gone above and beyond in their role and contributed to the success of the Eastern region and its routes. A key part of this is to recognise those who live by our values, behaviours and those that demonstrate our safety and performance culture.

It is an exciting time for Eastern region. We have a clear vision for the future, and a winning team of more than 10,000 dedicated employees to deliver a safe, high-performing railway with greater capacity and efficiency to drive economic growth here and the wider UK.

### 1.9 Structure of our plan

This Regional Plan is comprised of the various strategies and initiatives for the N&E, EM, EC and the Anglia Routes within the Eastern Region and include updates where relevant for our plans in CP6. The rest of this document is structured as follows:

- Chapter 2 provides an overview of the key financials for CP6, main risks and opportunities and how we measure success
- Chapter 3 provides a summary of the key strategic and financial changes since the previous Delivery Plan (FY20 RF11)
- Chapter 4 provides an overview of our Regional **Safety** Strategy
- Chapter 5 outlines our **Train Service Delivery** Strategy
- Chapter 6 sets out our Regional approach to **Customers and Communities** with key focus on our Stakeholders
- Chapter 7 details our approach to achieve **Sustainable Growth** within the Eastern Region
- Chapter 8 details our current progress to deliver our **Efficiency** plan
- Chapter 9 sets out our **People** Strategy

Additional information is provided in the appendices which should be referred to as needed. The appendices included are as follows:

- Appendix A: Key Assumptions and Risks
- Appendix B: Significant Changes
- Appendix C: Income breakdown
- Appendix D Glossary of Terms

## 2 Financials and Outcomes

### 2.1 Financial Overview for CP6

A summary of the costs across Operations, Maintenance and Renewals for the Eastern Region are presented below.

**Table 1: Summary of costs and outcome risk levels**

	Unit of Measure	CP6 (£m)					CP6 Total
		19/20	20/21	21/22	22/23	23/24	
		(actual)	(forecast)	(forecast)	(forecast)	(forecast)	
<b>Total Income</b>	<b>£m</b>	(435)	(398)	(445)	(477)	(502)	<b>(2,257)</b>
Maintenance	£m	499	571	591	581	591	2,833
Operations	£m	189	214	206	205	210	1,024
Support	£m	46	53	33	9	1	141
<b>Total MOS</b>	<b>£m</b>	734	837	830	795	802	<b>3,998</b>
Risk (Region-controlled)	£m	-	-	-	-	-	-
Risk - GPF	£m	-	-		45	51	96
<b>Total Controllable costs</b>	<b>£m</b>	734	837	830	839	853	<b>4,094</b>
Non-controllable costs	£m	0	(0)	-	-	-	0
<b>Renewals</b>	<b>£m</b>	744	1,042	1,008	902	837	<b>4,533</b>
<b>Total OMR</b>	<b>£m</b>	1,042	1,481	1,392	1,265	1,188	<b>6,370</b>

<b>Enhancements</b>	<b>£m</b>	<b>769</b>	<b>772</b>	<b>1,064</b>	<b>1,406</b>	<b>1,483</b>	<b>5,494</b>
<b>Headcount</b>	<b>FTE</b>	<b>9,727</b>	<b>10,512</b>	<b>10,501</b>	<b>10,367</b>	<b>10,367</b>	<b>10,367</b>
Permanent	FTE	9,626	10,333	10,333	10,200	10,200	10,200
Agency	FTE	101	179	168	167	167	167

**Profit & Losses** (excl. Property) present net position for CP6. Net P&L is driven by continued OPEX cost pressures across the Region offset by stronger income forecast throughout the Control Period. This includes Group Stretch Targets announced in October £250m across NR have been factored in at Rf8 (£37m for Eastern).

**Property** P&L forecast adverse due to the impact of the three COVID lockdowns in FY21, with has had a significant impact on passenger footfall. Expectations assume passenger demand peaking at 85 % pre-COVID levels in FY23 and remain at that level through the rest of the Control Period.. Opportunities to offset part of this being work through at Regional and company level.

**Renewals:** Strong renewals forecast despite COVID-19, outturn slightly ahead in FY21 and rebalancing portfolio across CP6 resulting in smooth spend profile in years 3-5 to aid maintaining consistent engagement, key resources and expertise from the supply chain and take advantage from safety culture standards developed to date. Portfolio in line with Final Determination budget overall in CP6.

**Enhancements portfolio:** FY22 reduction in outturn and overall re-phasing towards later years. Figures reported in table above are prior potential spending review changes.

**Headcount:** Routes and Functions working towards new Regional Target (incl. Property and PPF transfers). This is below PPF and takes cognisance of cost pressures arising from COVID-19 without compromising on operations and/or safety critical roles. The forecast also includes over 200 Apprentices/Grads/YII student across the Routes and support functions and takes into account:

- Middlesbrough - N&E embedded within CP6 OPEX plan
- Bedford – East Midlands capability drive for MML South
- Capital Delivery right sizing
- TRU natural ramping up scheme for delivery phases

## 2.2 Long-Term Scorecard

The scorecard detailed on the following page summarizes Eastern Region's performance measures for CP6. The development process for the Eastern Region scorecards has involved agreeing and adapting the national scorecards measures provided by Central teams in December 2019. These measures have been reviewed by the Eastern Exec team and then restructured in line with our Strategic Priorities.

Eastern		CP6					
Long Term Scorecard RF11		Yr1 Actuals	Yr2 Forecast	Yr3 Forecast	Yr4 Forecast	Yr5 Forecast	CP6 Forecast
<b>ON THE SIDE OF PASSENGERS AND FREIGHT USERS</b>		<b>19/20</b>	<b>20/21</b>	<b>21/22</b>	<b>22/23</b>	<b>23/24</b>	<b>Achievability</b>
North & East Route Scorecard	Current Forecast	54%	73%	50%	50%	50%	
	Last Year's Plan	50%	50%	50%	50%	50%	
East Coast Route Scorecard	Current Forecast	47%	73%	50%	50%	50%	
	Last Year's Plan	50%	50%	50%	50%	50%	
East Midlands Route Scorecard	Current Forecast	46%	73%	50%	50%	50%	
	Last Year's Plan	50%	50%	50%	50%	50%	
Anglia Route Scorecard	Current Forecast	53%	65%	50%	50%	50%	
	Last Year's Plan	50%	50%	50%	50%	50%	
<b>EASY TO ENGAGE WITH, EFFICIENT AND DEPENDABLE PARTNER</b>		<b>19/20</b>	<b>20/21</b>	<b>21/22</b>	<b>22/23</b>	<b>23/24</b>	<b>Achievability</b>
Complaints Handling	Current Forecast		30%	50%	50%	50%	
	Last Year's Plan		50%	50%	50%	50%	
Financial Performance Measure (FPM)	Current Forecast	(£33.1m)	(£62.6m)	£0m	£0m	£0m	
	Last Year's Plan	£0m	£0m	£0m	£0m	£0m	
Enhancement Milestones	Current Forecast	89%	58%	90%	90%	90%	
	Last Year's Plan	50%	50%	50%	50%	50%	
<b>PROUD TO WORK FOR NETWORK RAIL</b>		<b>19/20</b>	<b>20/21</b>	<b>21/22</b>	<b>22/23</b>	<b>23/24</b>	<b>Achievability</b>
Employee Engagement	Current Forecast	N/A	64%	67%	67%	67%	
	Last Year's Plan	N/A	64%	64%	64%	64%	
Fatalities and Weighted Injuries (FWI)	Current Forecast	N/A	0.044	0.045	0.042	0.041	
	Last Year's Plan	N/A	0.045	0.043	0.042	0.041	
Personal Accountability for Safety	Current Forecast	N/A	267	221	142	141	
	Last Year's Plan	N/A	146	145	144	143	
<b>INSTINCTIVE INDUSTRY LEADER</b>		<b>19/20</b>	<b>20/21</b>	<b>21/22</b>	<b>22/23</b>	<b>23/24</b>	<b>Achievability</b>
Environmental Sustainability Index	Current Forecast	N/A	56%	50%	50%	50%	
	Last Year's Plan	N/A	50%	50%	50%	50%	
Effective Volumes	Current Forecast	N/A	115%	100%	100%	100%	
	Last Year's Plan	N/A	100%	100%	100%	100%	
Composite Reliability Index (CRI)	Current Forecast	-10.8%	5.4%	-0.8%	1.0%	3.1%	
	Last Year's Plan	0.2%	2.3%	4.40%	5.40%	6.50%	
Service Affecting Failures (SAFs)	Current Forecast	8375	8178	7976	7873	7764	
	Last Year's Plan	8488	8291	8088	7985	7876	

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

## 3 Safety

### 3.1 Context

Safety remains the number one priority across the Eastern Region not just for workers but across passengers and the wider communities which we serve. Reducing Level Crossing risk remains a key priority, particularly for the Anglia Route. There is an onus on the Eastern Region to ensure the physical and mental health of all employees, as well as the safety of passengers and the wider public.

Go live of PPF Phase 3 has enabled further development of each Route's Health and Safety Delivery Plan, these implement this strategic plan and as a result this plan is under active review through a series of collaborative workshops which are in progress as this revision is being authored. The outcome of this process will be reflected in future iteration of this Strategic Plan.

### 3.2 Overview

Our Safety Strategies have been developed by collaborating with key stakeholders, customers and staff across the Region. The Region will continue to ensure Safety remains at the heart of our culture in CP6.

When looking at workforce safety specifically, the following initiatives are being developed:

- **Creating a safe and healthy working culture:** All Routes understand the importance of improving safety culture and ensure that risk is well managed to limit exposure. Change is being driven from the top with leadership communicating the importance of keeping safety at the forefront of everyone's minds, ensuring processes are being followed, trainings are undertaken and risks identified and cascaded.
- **Responding to FWI and LTIFR:** Reducing LTIFR is a priority across all Routes, given 65 % of all lost times injuries are caused by Slips, Trips and Falls, manual handling incidences of being struck by poorly

secured objects. Initiatives across the Routes include enhanced driver training, improving fatigue management across all employees, prioritising risk awareness training through the IOSH Training programme and implementing new tools and systems to create safer work practices.

- **Track Worker Safety:** There is a focus on using Planning of Work and Technology to improve track worker safety, which includes the implementation of new track circuit operating devices (TCODs) across the Eastern Region which will add a layer of protection for employees working track side, as well the reduction of near misses by limiting open line working and unassisted lookouts.

The main initiatives relating to Passenger Safety across the Eastern Region include reducing operational incidents, maintaining asset integrity and reducing accidents at stations. This is being achieved through upgraded signalling work, regular asset maintenance and improved station safety to mitigate against operational issues and station related injuries. Additionally, collaborative working with the TOCs has led to Joint Communications Review Groups being established which monitor safety critical communications.

Ensuring the public's safety is a key area of focus and initiatives have been targeted at the following areas:

- **Level Crossings:** This is a considerable risk for the Region, particularly for the Anglia Route which has seen an above average level of train / car collisions historically. To reduce the risk associated with level crossings has resulted in an improvement in technology, the removals of level crossings where possible and also engagement with the public to enhance their understanding of the risks around level crossings.
- **Security:** To safeguard the public and employees, the Routes closely manage the security at key stations in line with the national security

strategy, this is a key focus area for the N&E, EM and EC Routes with a focus at Leeds and Kings Cross. Through clearly defined governance structures and processes staff are able to identify, mitigate and respond to security threats effectively.

### 3.3 The Eastern Region approach to Safety

#### Prioritise Safety and Performance

Eastern Region is committed to taking a “whole railway system” approach to managing Safety Risk using this to understand the interface between Workforce Safety and System Safety along with the cause and effect of each on the other. Our approaches to improving Workforce and System Safety are summarised in Figure 11 & Figure 12.

Underpinning our whole railway system approach is our belief in building a strong health and safety culture – see section below.

#### 3.3.1 Building a strong health and safety culture

Improving health and safety culture, and ensuring people are considering the implications of their day to day activities, is essential in securing a reduction in LTIFR and creating a safer workplace. The Region understands the importance of improving safety culture. All the work detailed in this section is critical to helping change our safety culture and how we work across the Eastern Region.

Change comes about by leaders driving improvements that make a visible difference to our staff. Staff see the commitment and change that the business want to utilise and in turn respond to implement that change. Our work detailed above will continue to push our improvements forward to deliver that change.

Specific initiatives to promote this culture include:

- Safety leadership training aimed at management staff to ensure managers within teams are accountable for the occupational safety of colleagues under their management.
- Strong safety communications targeted at key touchpoints in the

working day. This includes adding safety-related signage at access points to the network so that colleagues consider safety from the moment they enter a worksite at the start of a shift.

- Better recording of safety performance of individuals and teams within the Route with the sharing of this information within the Route to ensure good safety behaviours are spread.
- Continuing our policy of integrating performance assessment and progression as well as giving our most promising staff additional safety training to allow them to influence the way teams work and consider safety.

#### 3.3.2 Our Approach to Improving Workforce Safety

“Everyone home safe every day” is the vision of Network Rail and the Eastern Region. This includes our passengers, staff, contractors and everyone who comes into contact with our railway.

The Eastern Region has set itself a world class safety target of 0.041 Fatality Weighted Index by end of CP6. This will be delivered through the Region’s safety plan which is based on three key pillars:

- **Creating the Environment** – Creating the right environment for our people to behave safely
- **Leadership** – Putting in place the right safety leadership across



Figure 11: The Workforce ‘Safety Wheel’

the Route

- **Accountability** – Holding everyone to account for their safety performance and rewarding good safety behaviours

The workforce safety plan is further divided in to Route Delivery Plans, owned by the Route Director and updated on a quarterly basis.

Our Workforce Safety Wheel - 11 - summarises, for each of these pillars, the activities and initiatives being collaboratively developed by the Routes and Capital Delivery to deliver their own Delivery Plan and overall Regional Plan.

### 3.3.2.1 Responding to LTIFR

Across the Eastern Region, approximately **60%** of all lost time injuries are caused by Slips, Trips and Falls; being struck by poorly secured objects; and by manual handling injuries. We are targeting these key drivers of lost time injury to reduce LTIFR through:

- Undertaking activities which focus on eliminating manual handling injuries (see heading below)
- Driver training: Additional training for drivers and monitoring devices fitted to vehicles to prevent lost time injuries related to vehicle accidents.
- Improving conditions and facilities: We are levelling surfaces and providing additional welfare facilities at key access points to reduce likelihood of Slips, Trips and Falls.
- New tools: Introduced new tools and policies, such as a ban on the use of hammers during track works to prevent pandrol clips from releasing and hitting our staff.
- Communications Strategy: We have developed a well-established annual safety communications plan includes quarterly stand down themes on Accountability and Risk Awareness and Driving. We use a variety of mediums to relay safety messages, including posters, videos, briefing packs and practical activities. A review process which involves employee representatives provides feedback for continuous development and improvement of our safety communications.

- Fatigue improvement: We are developing a Fatigue Management Plan to reduce fatigue risk to employees. This follows the Fatigue Risk standard, but also includes awareness for employees on identifying and managing fatigue and reporting where they are not fit to work. We recently conducted a fatigue survey of which more than 15 % of staff responded, which is considered a positive result across of engagement for across the business).
- Risk awareness training: We have undertaken 1 Day IOSH Training for specific groups of employees in Year 1 of CP6. This training was delivered to 1,000 people. After a pause due to the eruption of COVID, delivery has now recommenced on line and in a COVID secure settings.
- Focus on Accident Investigators: We are investing in upskilling Lead Investigators to enable accurate information to be obtained regarding the nature of the accident, how it occurred, who was affected and the resulting impact of the accident. We are also looking at reviewing processes for shared learning as we move into a regional structure for PPF. This is supporting the Route in identifying effective risk controls to prevent accidents and incidents.

### 3.3.2.2 Eliminating manual handling injuries

We have set ourselves the objective of eliminating manual handling injuries by the end of CP6. Initiatives to drive this include:

Manual handling training: We continue a programme of manual handling training across the Routes with more than 1000 staff now trained in basic manual handling and more than 120 competent as mentors. We are focusing on Operations staff who analysis shows are also at risk of manual handling and Slip, Trip and Fall accidents. We have introduced tools and equipment to eliminate manual handling risk which include cable pullers, welsh wheels, battery packs for level crossings, mechanised trolleys and carts. Our focus on reducing manual handling risk has seen a reduction in the number of manual handling accidents on the Routes. What is more significant is the reduction in accidents related to Slips, Trips and Falls, which the practical manual handling training

course also seeks to address. This in-house manual handling training is a continued focus for the Route across the first three years of CP6.

- Identification of risky activities: Identifying activities where it is reasonably practicable to eliminate manual handling injuries entirely or reduce the instances of manual handling in an overall process to minimise the likelihood of injuries being incurred as a result.
- Introduction of technology: Identify and implement new technology to reduce the risk of manual handling injuries. A number of items have already been implemented, as noted above, however items still in development include level crossing lifters and sleeper squaring tools.
- Improved planning and logistics: Using the Safe and Effective Working programme to streamline planning and logistics processes and reduce the need for manual handling activities.

### 3.3.2.3 Track Worker Safety Programme

This Programme focuses on two core workstreams, Planning of Work and Technology.

The **Planning of Work** workstream is comprised of three core initiatives:

- Safe and Effective Working, this initiative looks at creating the right access footprint to support delivery of our work and is currently being rolled out throughout the Region;
- Planning for Delivery, this focuses on the empowerment of Person In Charge and on improving safety around access points; and
- Remove the Need, this initiative looks at implementing processes such as Plain Line Pattern Recognition and risk-based maintenance to remove the need to work trackside.

Our near miss reduction plan, which relates to our Remove the Need initiative has evolved and includes a new instruction that came into force in September 2019 that severely restricts open line working with unassisted lookouts. Since the instruction was briefed, we have increased the amount of work orders completed using protection and assisted lookouts.

The **Technology** workstream for the Eastern Region has adopted and trialled the ZKL 3000 remote control track circuit operating devices (TCODs). We are continuing to embed the use of the remote control TCODs throughout CP6, sharing best practice and identifying further locations for fitment. In addition, we are exploring the use of all newly designed and approved equipment to make the taking and giving up of lineside line blockages safer as well as more effective and efficient, and using technology built into the railway signalling system e.g. LEWIS to provide a warning when working open line. We also identified further areas where Semi-automatic train warning systems (SATWS) can be installed.

### 3.3.2.4 Managing Occupational Road Risk

The Eastern Region is currently undertaking a number of improvements around creating a minimum driver standard. This is critical to reducing harm as in the past three years, particularly for the Anglia Route, where fifty-one staff members have been injured in road vehicle collisions. Implementing plans around fatigue and rest periods for drivers going over a set driving distance.

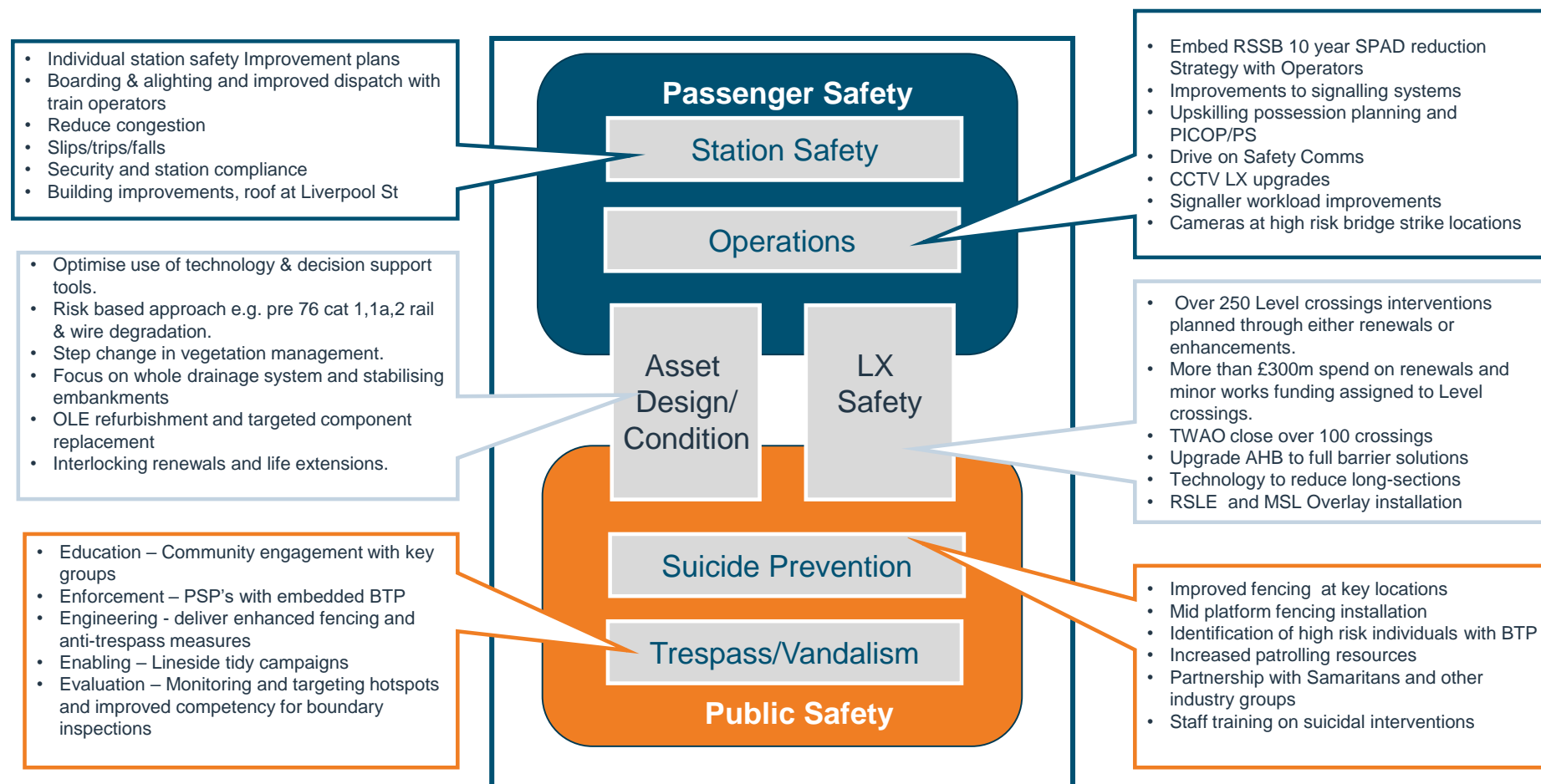
Young or inexperienced drivers are being given orientation in using vehicles and where appropriate sent on training courses. As a minimum they are being assessed for their skill level before being allowed to drive vehicles under set driver classification. All drivers are asked to undertake online assessments to identify shortfalls in knowledge and understanding of road risk. Identified at risk groups are offered driver assessment training to individuals to improve their ability to drive safely and understand road risk.

Our new road fleet have puddle lighting fitted as standard to assist staff to see what ground they are stepping on to as they exit their vehicles. Additional initiatives include risk training, as mentioned above through the IOSH Training programmes, investment in improved infrastructure and installing new overhead line equipment.

### 3.3.3 Our approach to System, Passenger and Public Safety

Figure 12: Eastern Region System Safety Panel

Our whole railway system approach to Passenger and Public Safety along with a summary of interventions for CP6 are summarised in Figure 12.



### 3.3.3.1 Passenger Safety

We are focused on reducing the risk of train accidents by reducing the number of operational incidents, maintaining asset integrity and reducing the number of accidents at our stations.

To do this we collaborate with our train operating companies. We have bespoke Joint Safety Improvement Plans in place with all our lead train operators. These are monitored at our Joint Alliance Boards with the train operators. To manage this important subject area, the route has established a new framework for collaboration; a route System Safety Review Group attended by all lead train operator safety leads. Under this group there are train operations, route crime, and safety critical communications working groups all of which are attended by our industry partners

In relation to our scorecard, the Train Accident Risk Reduction (TARR) measure is made up of a number of indicators that all enable our trains to run safely. We monitor these as proactive risk indices to make sure we prevent derailments.

### 3.3.3.2 Reducing Operational Incidents

We continue to invest in modern signalling technology to improve operational controls and reduce risks. We continue to migrate the current signal boxes and signal centres into the ROC at N&E, EM and EC. This will include enhanced training for the signalling controllers being deployed in the ROC.

N&E, EM and EC along with its TOC and FOC customers is supporting the RSSB 10 year Signals Passed At Danger (SPAD) reduction strategy. The route Train Operations Sub Group will continue to focus on Category A SPADs and serious Operating Incidents and will amend working arrangements where lessons can be learned from incidents. The Eastern Region undertook a regional workshop on SPADs in February 2020 to look at what we can do as an industry to respond to the increased risk of SPAD.

In CP6 the Route is focusing on safety critical communications through:

- Joint Communications Review Groups with Train and Freight Operators
- Monitoring safety critical communications with the aim of promoting best practice and highlighting and addressing deficiencies
- Improved CCTV cameras with larger colour screen giving greater clarity are being installed in our signalling centres
- The potential trial of video analytics to reduce the risk of pedestrians getting trapped in CCTV monitored crossings.

Accident investigation will remain a key instrument for learning and preventing recurrence. We will continue to share information relating to recommendations via safety hour discussions and safety bulletins to prevent repeat occurrences.

### 3.3.3.3 Asset Integrity

Our Renewals and Maintenance strategies set out how we continue to prioritise safety critical assets as part of our overall asset management strategy. We maintain and improve our asset integrity through the use of decision support tools to support reductions in the likelihood and impact of equipment failures. Examples include further roll out of monitoring and analytics in key areas such as track circuits, switches and crossings and Level Crossings. We have also made improvements to depots including Park Lane Darlington, Selby MOM, Park Street Hull, Retford DU, Oakham DU and Cricklewood DU.

### 3.3.3.4 Station Safety

Our management teams at Kings Cross, Liverpool Street and Leeds are embedding initiatives that will deliver a lower number of Slips, Trips and Falls, and incidents at the platform-train-interface. These initiatives focus on 3 key areas:

- **Platform Train Interface** risk, where the station management teams are proactively monitoring and managing the many changes to the rolling stock during CP6, along with platform infrastructure, processes and procedures maximising safety benefit through careful consideration, robust risk assessment, implementation and review.

- **Station development** given the changes to the layout and working of Kings Cross and Leeds occurring during CP6. Increasing passenger numbers are putting a further strain on the stairs, escalators and lifts. Further use of pedestrian flow monitoring is being embraced, whilst our close working relationships with train operators at each of our stations is essential when planning and implementing changes.
- **Station management capability** is being developed to manage the increased demands on stations effectively. Station managers are developing their teams to maintain high levels of competence, including non-technical skills, to be able to effectively manage increasingly complex operational interfaces.

### 3.3.4 Public Safety

#### 3.3.4.1 Level Crossings

##### N&E, EM and EC

We have continued to reduce the risks associated with level crossings as part of our renewals and enhancement investments through the installation of modern technology. 130 level crossing interventions are planned during CP6 with an anticipated FWI benefit of 0.33. However, increased traffic on the Network in CP6 is expected to increase this level crossing FWI value across CP6.

Year to date we have closed 24 level crossings on the Routes and reduced 3 in status. We have also completed installation of VAMOS at eight sites across the Route. This gives a total FWI benefit of 1.09 % year to date.

##### Anglia

Level crossings are one of Anglia's key risk areas and accounts for 25 % of the national risk as measured by the All Level Crossing Risk Mode (ALCRM) (2018/19 P7 Anglia 2.955 of National 11.625 FWI). The route has seen a significant risk improvement (37 %) over the last 18 months including a reduction in vehicle near misses associated with level crossings.

However, we still experience significant train/car collisions. In the past 12 months, three deliberate events occurred at automatic half barriers crossings (Thorpe Lane, Waterbeach and Palgrave). Additionally, at Routs level crossing, which has a Power Operated Gate Opener (POGO), we saw deliberate misuse leading to a collision with a freight train. Our strategy is to seek to close crossings where we can, especially those with significant risk and misuse.

Anglia Route pioneered the use of Transport and Works Act Orders as a method to enable more efficient closure of Level Crossings, the benefits of this approach to the wider region are now being explored.

#### 3.3.4.2 Specific Safety Improvement Schemes

The ORR's Final Determination set out the need for additional spending on safety as part of the CP6 plans. As a result, an additional £80m (18/19 prices) of safety related expenditure was allocated across all of the Routes nationally, for inclusion in their updated CP6 plans. Of this, Network Rail set out that approximately 30 % of this should be allocated to improve protection of user worked crossings (UWCs) through the installation of miniature stop lights (MSLs).

N&E, EM and EC was allocated £5.9m of this to focus on UWCs, on top of existing safety expenditure included in the Route's base plan.

#### 3.3.4.3 Suicide & Trespass

Suicide and Trespass continue to be a highly significant societal issue which impacts the Eastern Region significantly. The biggest at risk group for suicidal people on the railway is men between the ages of 30-55 although tragically we are seeing more young people committing suicide than ever before.

We have integrated our approach to external incidents making sure we don't lose opportunities for one solution to have benefits across suicide, trespass, vandalism and other issues. This approach includes 3 pillars – denial of means, response and recovery and understanding the problem. Denial of means includes the increase in vigilant presence through training and deployment of resources to interrupt and intervene

with incidents, or prevent them by high visibility patrols. We have implemented and will implement physical mitigations to prevent access to the line at critical locations. We combine physical prevention with patrolling to ensure that any remaining points of access such as stations and level crossings remain incident free.

We have engaged with and fund partnership working with British Transport Police, Samaritans and Local Authorities. We have funded 3 embedded inspectors seconded from the British Transport Police to take charge of the tactical deployment of resources from BTP, Network Rail and specialist contractors.

We have, for example, lineside fenced over 79 kilometres, platform end gated 146 stations, mid platform fenced 11 stations, introduced smart cameras at 2 stations at crucial hotspot locations where lives have been repeatedly lost or suicide attempts have been made. We have established a highly effective patrolling strategy funding specialist contractors and additional BTP resource.

A summary of our key CP6 suicide and trespass prevention strategies are shown below.

### Suicide Prevention:

- A target of 10 % increase in lifesaving interventions per year
- £1.4m station mitigations
- Samaritans partnership plan for community outreach
- Local Authority partnership trials will be expanded
- BTP partnership operations outline plan developed including additional funded resource of 17 officers
- BTP Embedded Inspectors x 3
- Emergency Intervention Unit
- Flagship roving suicide prevention patrols to continue with 40 patrollers

### Trespass:

- £6m available fencing budget allocated to route trespass hotspots,

- animal incursion and cable theft target hardening
- Community engagement and outreach programme
- Joint BTP operations targeting seasonal peaks and hotspot location
- Patrolling will integrate with suicide hotspots for maximum benefit

### Community Safety:

Continues to be led by a single point of contact in each route with a region wide emphasis on an intelligence lead approach targeting interventions at hotspot locations and vulnerable groups.

### 3.3.5 Our Approach to Occupational Health & Wellbeing

Network Rail's Occupational Health and Wellbeing programme aims to optimise the Occupational Health management and safety of its workforce, by effectively mitigating, monitoring and diagnosing occupational health conditions. The Eastern Region has empowered staff to take individual ownership of their health and provide support and information on how to improve both mental and physical wellbeing through health campaigns, kiosks and stand down days. Our plan drives improvements in key areas associated with occupational health including hand arm vibration, respiratory risks, fatigue and musculoskeletal related risks.

Mental wellbeing is critical to staff health, and we recognise and will seek to help our staff improve their health and wellbeing. We will collaborate with our STE colleagues to bring greater focus to our occupational health services for our staff and as a result encourage and enable them to take healthy lifestyle choices. We have initiated a programme regarding mental wellbeing. Initially, we are developing staff to be mental wellbeing champions to enable them to talk with staff who have concerns regarding anxiety or depression. Their role is solely to sign post staff to sources of expertise both inside and outside of Network Rail. We are training managers to be able to recognise and manage mental ill health within staff whilst at work.

The Routes are committed to expanding its mental health first aid training programme throughout CP6, which will allow employees to recognise colleagues who may be suffering mental illness and providing appropriate support. We have recently started the 3 day Managing Safety Course to further enhance occupational health and safety training and development. The aim is that this course amongst others, will reduce the likelihood of staff being involved in injuries as a result of slips or lapses in concentration.

### 3.3.6 Our Approach to Security

Security is core to Network Rail's culture and is embedded in everything that the organisation does. The Region's management of security at its managed stations is considered to be particularly well managed. All security threats identified across the Routes are addressed in line with processes as part of our business continuity management system. New developments or the introduction of new schemes are considered by the Route to present an opportunity to consider, review and improve railway security. The Route's approach to security is in alignment with the national security strategy, as we are focused on the following objectives in CP6:

- Safeguarding our people
- Reducing the safety, railway performance and cost impacts of security incidents
- Establishing clear roles and responsibilities for security within the Route
- Establishing performance management systems that provide clear and relevant security information to stakeholders
- Reducing the cost of security through standardisation
- Establishing and maintaining a safe and secure culture, supported

from the top down.

During CP6, the Route's Security and Resilience Committee continue to undertake regular reviews of security threats, and manage implementation of mitigations, such as security fences, access, CCTV and alarms. Cyber security is also a key consideration for the Route, and throughout CP6 we will continue to educate employees on cyber security risks through eLearning and internal briefings throughout CP6. Additionally, we will require project teams introducing software-based systems to take security threat into consideration during design phase.

### 3.3.7 Making sure we do what we say we will

#### 3.3.7.1 Governance

Regional Health and Safety Performance and Assurance Outputs are Monitored through each Routes Periodic Business Review with an in-depth review of trends for Region and Route taking place Quarterly at the Region and Route Quarterly Reviews.

The Management System and Improvement Activity are Governed through the Quarterly Regional HSE Committee and Route Level Period HSE Review Meetings which are able to act with delegated authority.

#### 3.3.7.2 Assurance

Eastern Region's assurance methodology for CP6 is aligned to the Risk Management Maturity Model (RM3) and this commitment is written into the corporate Health and Safety Management System. RM3 allows a structured approach to enabling improved leadership across both workforce safety, operational safety, asset management and public safety at level crossings and within all managed stations within the Region.

## 4 Train Service Delivery

### 4.1 Context

The Eastern Region and its Operators are facing some considerable train performance challenges in the early years of CP6. This has been as a result of well documented delayed delivery of infrastructure and issues with the introduction of new rolling stock. More recently, the challenges of the COVID-19 pandemic, has created a level of instability in train service plans and the timetabling process throughout 2020 that continues in early 2021. This will continue to challenge the industry moving forward, with both long-term plans and short-term interventions necessary to enable the continued operation of a reliable train service with the necessary confidence of available operational resources and resilience of the timetable.

Further timetable changes and rolling stock introductions are planned through CP6 and the ongoing impact of the pandemic means the region needs to carefully balance a focus on the short-term disruption and maintaining a robust longer-term view of assurance and readiness activity.

Some of the initiatives we have been undertaking in CP6 in order to improve train service performance are set out in this chapter and this has been supported by a focus throughout the pandemic to identify how the train service can be ‘built back better’ to deliver the capacity needed to passengers and freight end-users in a more reliable and consistent manner.

### 4.2 Overview

Over the remaining years of CP6 the aim of the Eastern Region is to achieve the following to improve train service punctuality and performance:

- Managing capacity better by embedding lessons after the May 2018

timetable change helping resolve some of the timetable issues that emerged after May 2018, including establishing programme management resource to co-ordinate a programme of future timetable change in each Eastern route, interfacing with the Industry Timetable Assurance PMO. Formalising our approach to Performance improvement by further developing our implementation of PIMS policies, tools and governance, including RM3P principles, with formalised training and consistent methods of reporting to allow for continuous improvement of the way we capture, document and respond to delay incidents.

- Improving operational efficiency by consolidating staff at Route Operations Centres (ROCs) in York.
- Continuing joint operations initiatives with TOCs to improve coordination and train control through arrangements started in CP5 such as the East Coast Partnership. In Anglia we will have integrated signalling, and control for both TOC and Network Rail on a single operating floor with c2c. East Midlands will introduce a joint Control organisation by end of 2021.
- Renewing lineside fencing and continuing projects to reduce trespass and suicide on the railway in partnership with the British Transport Police. We continue to look for innovative methods to help control external trespass such as using proactive measures in partnership with the BTP and local organisations.
- Deploying new technology, and working more closely with Operators to better utilise industry data, including GPS tracking, Forward Facing CCTV footage, such as GPS tracking, Quartz and RAPPORT supported by data analytics techniques to improve understanding of causes of performance issues and improve incident response times.
- Reducing delays attributed to fleet performance by working with our TOCs to help resolve teething issues with new rolling stock, and to support alignment between industry resources as timetables change
- Engaging in a widespread programme of vegetation clearance across

the region to reduce the occurrence of asset and track delays related to vegetation.

Ensure there is a 'build back better' focus on all aspects of the operating plan on each Eastern route, ensuring that as the train service returns, the timetable, resource plan and operational delivery plan is more resilient and reliable for passengers and freight end-users.

### 4.3 North & East, East Midlands and East Coast

This section provides an overview of the Train Performance strategy, Operational Performance strategy and Capacity and timetabling strategy for the N&E, EM and EC routes. Please refer to Section 3 of the LNE & EM Route Strategic Plan (March 2019) to review the activity prioritisation and risk outcomes of the Route.

#### 4.3.1 Operating performance improvement Strategy

##### 4.3.1.1 Addressing recent performance issues

The Eastern Region is undergoing considerable changes to its operations and train performance approach in CP6 to prevent a repeat of the issues experienced following the May 2018 timetable change.

The Eastern Region is adopting a more holistic approach to dealing with timetable planning and operational incidents which includes the following:

Timetable planning (see also 3.3.2

- **Having robust Operating Plans in place** to manage timetable changes, deliver more 'right time' starts and account for Train Speed Restrictions (TSRs) along the route. These are priority challenges that are the focus of the National Performance Board (NPB)
- **Ensuring timetables are more carefully planned** from the outset in collaboration with our System Operator colleagues and TOCs. This also means working with bidders during the franchise letting process to ensure timetables are workable and realistic, and dedicated

resources within each route to manage the industry programme of timetable change.

#### Operational incidents

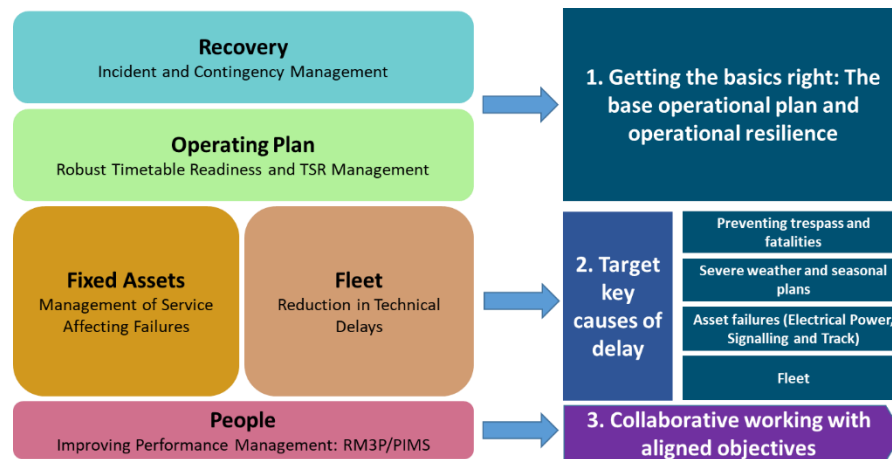
**Recovery plans** – as mentioned below in section 4.3.1.3, we are ensuring we have procedures in place to minimise delays per incident, this includes having the right incident response teams based in critical locations that are equipped with the right tools and training to help restore services, and table top testing of our operational response and service recovery plans.

- **Addressing underlying causes of delay** - There are also underlying delay causes that are in our control such as issues with OLE and Track failures. These have been targeted with specific interventions (see Table 2 overleaf). For delays related to trespass, an External Manager has been recruited to co-ordinate all route anti-crime activity, working closely with Route Asset Managers to prioritise fencing and stations work, working with industry partners like BTP, Samaritans, TOCs.
- **People** - Creating joint delivery plans with TOCs to ensure better alignment of objectives and collaborative working but also adopting performance improvement principles. These include PIMS teams which will provide us with a programme of activities to improve performance management capabilities incl. the development of the RM3P tool.

Figure 13 illustrates the key areas of our performance plan and shows how we are applying this model to specific issues on the East Coast Routes. A similar model has been deployed across North & East and East Midlands.

We are now strengthening the performance management capability in all Eastern routes, with resources mostly established to provide either a Head of Performance or Joint Head of Performance supported with capability to lead on PIMS in each route.

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**Figure 13: Overview of Eastern Region's Performance Improvement Strategy**

We summarise what each of these have translated into over the last year for three of Eastern Region's Routes below. Anglia's Performance Improvement activities are set out under Anglia Operational Performance Strategy in section 4.4.2 below.

**Table 2: Route by Route Performance Improvement Activities in CP6 years 1 and 2**

Route	Performance Improvement Activities
North & East	<ul style="list-style-type: none"> <li><b>Operational Implementation of the December 2019 Timetable</b> - Supporting train operators to resource the operational plan and support their driver training plans as well as working with them to develop more robust and resilient timetables.</li> <li><b>Improving Start of Service</b> – Establishing fortnightly Control Rooms at Neville Hill depot to focus on delivery of the Leeds to Neville Hill empty stock plan to help achieve right time departures from Neville Hill. As part of the North of England performance board have now instigated an innovative analysis programme of Neville Hill performance.</li> </ul>

Route	Performance Improvement Activities
	<ul style="list-style-type: none"> <li><b>TPML Resilience</b> - We are implementing our resilience programme for the TransPennine Main Line. This includes addressing key asset areas, access requirements, and resources to strengthen the resilience of the route before &amp; during implementation of the anticipated Route Upgrade.</li> <li><b>Perturbation Management</b> - Deploying Train Running Specialists in the sub-ROCs at York to help drive optimum service regulation decisions on North TransPennine corridor.</li> <li><b>Providing greater focus on Northern &amp; TPE services</b> – At Right Time Railway meetings to and to drive local performance improvement plans in areas such as regulation, alignment of maintenance plans and minor adjustments to timetable &amp; station plans.</li> <li><b>Preparing response management capability</b> – We have increased the number of Mobile Operations Manager posts in a manner that aligns with current and future changes to services across the North &amp; East route (e.g. Additional MOM posts at Harrogate) providing 24/7 coverage at more locations.</li> <li><b>Reducing External Incidents and Trespass</b> - We are designing a programme of platform end fencing, gating and cattle guards at stations to reduce External delays. At hotspots mobile covert cameras, and static patrols have been deployed supported by the wider MOM coverage.</li> <li><b>Intelligent Infrastructure</b> – We are installing enhanced asset monitoring on Key assets at Leeds St, Mirfield Corridor and Leeds NW which will allow us to fully understand asset condition and reduce the need to perform interventions, with a number of trial sites established for further II assets.</li> <li><b>Flooding Response</b> – RAMs are reviewing all earthworks, structures and drainage systems across the route to determine where asset resilience can be improved.</li> <li><b>North of England Performance Board</b> – Continued to provide co-ordination of performance improvement activities across both N&amp;E and the North West Route in NW&amp;C Region.</li> <li><b>Build Back Better</b> - Activity focussed particularly on the Leeds to Micklefield corridor to implement a higher performing</li> </ul>

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Route	Performance Improvement Activities
	timetable supported by improved operational delivery
East Midlands	<ul style="list-style-type: none"> <li>• <b>First Fifty Miles Performance Improvement Plan</b> - Established for Operations, 'The Core', OLE, Track and Signalling on the key section of railway between London and Bedford, which are monitored bi-weekly at the Route Performance Management War Room.</li> <li>• <b>Second Fifty Miles Strategy</b> – we are advancing plans to split accountability for the current Bedford DU area to enable a sustained focus on the first 50 miles and in turn to enable a greater focus on the busy section of railway between Bedford and Leicester.</li> <li>• <b>Strengthening Incident Officer Cover</b> - at East Midlands Control Centre (EMCC) and Ops Management cover at West Hampstead across both morning and evening peaks has been established.</li> <li>• <b>Information Coordinator roles</b> – These are new roles that have been created to support incident management.</li> <li>• <b>Working with East Midlands Railway</b> - Lincoln incident management has migrated from York to the EMCC, resulting in better focus on the holistic management of incidents affecting the route.</li> <li>• We are developing the <b>East Midlands Extreme Weather Plan</b> to set our strategy for short-term and long-term weather mitigations and to improve our readiness for impending extreme weather events (from T -5 days).</li> <li>• <b>OLE improvements</b> – Rosters have been amended to improve the amount of daytime patrolling to identify more faults in advance.</li> <li>• <b>Vegetation work</b> - £2m of vegetation work accelerated from year 2 CP6 will be completed in 2020/21 between Luton and Bedford.</li> <li>• <b>Additional track staff</b> – employed to improve compliance, defect and S&amp;C management.</li> <li>• <b>Track renewal of Elstree Tunnel</b> – This was delivered in weeks 46 and 47 to resolve a longstanding issue with TSRs and track faults caused by drainage issues.</li> </ul>

Route	Performance Improvement Activities
	<ul style="list-style-type: none"> <li>• <b>Service recovery plans</b> - Have been reviewed and 'tightened' for EMR.</li> <li>• <b>Robin Hood Line infrastructure resilience works</b> have been delivered in 2020/21</li> <li>• <b>Substantial programme of flood mitigation works</b> has been delivered at high risk sites including Draycott.</li> <li>• <b>Two tier Project Liverpool – Norwich</b> service group improvement commenced in December 2019 and has delivered five tactical improvement actions in advance of the December timetable change and is continuing to work across routes to develop further performance mitigations.</li> <li>• <b>Build Back Better</b> – amendments to four EMR line of route timetables were introduced in September 2020 to build contingency into specific poor performing trains and these changes are being closely monitored to inform future timetables.</li> <li>• <b>Alliance Suicide Prevention Strategy</b> – launched in September 2019 to provide greater focus on prevention and mitigation measures.</li> </ul>
East Coast	<ul style="list-style-type: none"> <li>• <b>Addressing Overhead Line failures</b> - detailed plans have been created to target the highest risk sites, which have been implemented throughout 2020, and with a programme of OHL resilience now in flight with regard to wind resilience.</li> <li>• <b>Additional staff</b> – we have recruited 30 new OHL staff across East Coast, at Hornsey to assist with response around London, at Doncaster to create 24/7 capability solely for ECML.</li> <li>• <b>Resolving clearance issues</b> - 50 % reduction in tripping's caused at bridges, vegetation and birds.</li> <li>• <b>Data Analytics</b> - Data scientists have been deployed at York to work with station and operations staff to assist with passenger and train movements to improve dwell times and support on time departures. This dovetails LNER's programme of works to improve in-station workings of trains at York, and the trial of a platform docking tool to improve operational delivery of the plan.</li> <li>• <b>Introduction of Train Running Specialist roles</b> - within signal</li> </ul>

Route	Performance Improvement Activities
	<p>boxes to improve platforming and regulation.</p> <ul style="list-style-type: none"> <li>• Potential project for York North – Signalling and layout improvements to alleviate restrictions between existing fixed signalling blocks.</li> <li>• <b>Fleet</b> –All LNER services are now Azuma Bi-mode trains or Class 91, with the previous section running times being used to reduce risks to timetable in the event of teething issues .</li> <li>• <b>External incidents</b> - in particular Fatalities and Trespass events are being addressed by specific measures: <ul style="list-style-type: none"> <li>– Continuing Vital patrols; including targeted static patrol at key locations like Durham station. External incidents still cause large delays as a result of suicide.</li> <li>– Level Crossing risk assessments for suicide prevention</li> <li>– Targeted Samaritans training for station staff</li> </ul> </li> <li>• <b>Targeted Track Renewals</b> – As mentioned in section 6.3, RAM-led improvements have included additional funding per Track Maintenance Engineer for track resilience and renewal of highest risk crossings.</li> </ul>

The above Performance Improvement Activities are documented in the Region's quarterly reviews. We have also continued the following initiatives to improve our Operational response capability and reduce the occurrence of delays.

### 4.3.1.2 Consolidating our Route Operations

During CP6 we are continuing to streamline our operational capabilities by transforming maintenance and centralising our operations, enabling us to work more closely and collaboratively with our TOCs when issues arise.

Main signalling operations will continue to be centralised to our York (LNE) ROC. Management of signallers will be more coordinated whilst Controllers work alongside our TOCs to ensure delays are managed collaboratively and that communications between us and our customers are more effective.

Previous plans included consolidate operations staff across Derby, Luton and West Hampstead control centres. However, this decision has now been reversed as the risks of a centralised operation (attrition, skills gaps, business continuity, exacerbated due to COVID) outweighed the associated benefits.

Incident Management System software (IMS) and the introduction of new technology such as delay reporting apps for drivers will allow us to identify and respond to delays in real time and conduct better analysis of the underlying causes of incidents. These can be reviewed with all TOCs and FOCs to continuously revise service recovery and regulating strategies.

### 4.3.1.3 Approach to resilience

#### Prioritising Safety and Performance

Throughout CP5, DPI on the Region fell to record low levels (achieving its lowest total delay minutes for a period for over eight years in Period 4 of 2017). Despite these improvements, DPI has increased from these low levels towards the end of the control period mainly due to a number of severe weather incidents, reliability of fleet and the introduction of the May 18 timetable. Combined, these events led to a 30 % increase in delay across the route. We continue to update and develop our robust business continuity plans to ensure the routes can promptly recover services and minimise impacts on railway users in the event of an incident on the network. 20/21 DPI levels have been low, with significantly lower levels of reactionary delay observed when incidents do occur, and we continue to learn lessons from the pandemic period with regard to the levels of train service, operational resilience and recovery following incidents.

The Region will improve response times for incidents with qualified response teams located efficiently so that all points on the Route can be reached within a 30-minute response time – with 15 minutes at critical locations. This will involve the implementation of a number of initiatives to:

- improve the skills of our response teams (e.g. live response rehearsals)

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for our most common causes of service affecting failures).

- improve the equipment they are using (e.g. 'grab bags' at strategically critical locations to ensure that tools and equipment to repair and resume services are easily available).
- improve the processes they follow Standard Operating Procedures (SOPs) to provide a structured approach to reacting to incidents as well as accountabilities, contact information and target times for treating certain types of incident.

New Mobile Operations Manager locations have been created and recruited to reduce the span of control and comply with 30 minute response times. Lead Operations Managers are now in place to bring single leadership to the MOM team.

Alongside this will work with our TOC customers to refresh and revise service recovery plans. We will work with Freight Operators to consistently implement the management of Freight services during disruption to ensure late-running Freight Trains do not disrupt other rail services.

We will also ensure that Control teams at our ROCs are well trained to ensure accurate, real-time information can be provided to customers, alongside structured communications in line with Passenger Information During Disruption (PIDD) protocols.

### 4.3.2 Capacity and timetabling strategy

A resilient and deliverable timetable is a core part of the Region's vision for CP6. This will be enabled by designing a precision timetable and a renewals and maintenance strategy that allows trains to start on time, every day.

#### 4.3.2.1 Delivering timetable changes

One of the key focus areas for the Eastern Region in CP6 is in the area of train performance, specifically, how we are planning to sustain performance seen during the COVID-19 pandemic. Timetable readiness activities continue on each route, and revisions to Network Rail standards with regard to Timetable Change Risk Assessment activity have been

implemented across the Region. The purpose of these activities is to identify and deliver the critical path outcomes for the release and delivery of the planned timetable changes and currently involves input from Network Rail (Route and System Operator), rail operators and stakeholders. We have a keen focus on assurance, working closely with both the industry PMO and other Regions.

In addition to this, we will support the system operator in their production of network wide timetable that maximise the number of services we can run on busiest sections of the Route. We continue to prioritise and focus on timetable performance improvements where legacy conflicts or inaccurate planning values are in place, including through our leadership of the East Coast ESG, and will continue to work with the System Operator to review existing train planning rules including dwell times and headways.

These will combine with new traffic management systems implemented in the most congested parts of the Route such as ECML and Thameslink, allowing pathing and performance allowances to be removed from the schedule. Our aim is that by the end of CP6 all allowances that are no longer relevant to rail operations are removed from the timetable.

In addition, we continue to work with FNPO in a review of the timetable to look at opportunities to improve average speed origin-destination, review suitability of current systems to capture network constraints and traction capability.

Whilst these changes should lead to operational benefits, service increases during CP6 (see below) will put additional pressure on our assets with consequent impacts on performance. This serves to emphasise the case for additional investment on some of the busiest sections of the network as set out in our ECML Supplementary Plan.

#### 4.3.2.2 Major timetable changes delivered so far in CP6.

##### **Focussing on our customers and stakeholders**

The table below details the timetable changes that have been delivered so far in CP6.

**Table 3: Proposed timetable changes affecting CP6 based on current franchise commitments**

Route	Timetable changes delivered so far in CP6
<b>Anglia</b>	<ul style="list-style-type: none"> <li>Greater Anglia rural services increase on weekends- the Saturday and Sunday service Ipswich- Felixstowe, Ipswich-Lowestoft and Ipswich-Cambridge service level will increase from Dec 19 to match the service level operated by GA in the summer period.</li> <li>Creation of a through service between Norwich-Cambridge-Stansted Airport on Greater Anglia</li> <li>Additional 2tph on the Gospel Oak-Barking line, Off Peak now 8tph and Peak 10tph. This will assist performance by relieving passenger loading.</li> <li>MTR Crossrail have introduced services to Reading, Maidenhead and Slough on the Western route, there are no service amendments on the Anglia area.</li> </ul>
<b>East Midlands</b>	<ul style="list-style-type: none"> <li>December 2019 Timetable change included strengthening for the regional services, with the addition of 9 x additional class 156 units from December 2019</li> <li>May 2021 sees the introduction of the TSR1 timetable on the MML, and related changes to regional routes. This is facilitated by the introduction of class 180 and class 360 units and the withdrawal of the HSTs. We are working closely with EMR to ensure that this timetable change is robust and delivers the required outputs in terms of performance, capacity and regional growth.</li> </ul>
<b>East Coast</b>	<ul style="list-style-type: none"> <li>The East Coast route changes in Dec 19 included introducing new rolling stock for TPE, LNER and Hull Trains, and extending services on the ECML, including more LNER services to Harrogate and the introduction of TPE services to Edinburgh.</li> <li>The COVID pandemic constrained train service changes planned in the May 20 timetable</li> <li>Future changes anticipated in CP6 will include:</li> </ul>

Route	Timetable changes delivered so far in CP6
	<ul style="list-style-type: none"> <li>An adjusted timetable between December 20 and June 21 in support of King's Cross remodelling.</li> <li>Implementation of new train services by First East Coast Trains from May 2021.</li> <li>A new East Coast Main Line timetable from May 2022 as benefits from infrastructure investment across the route is realised</li> </ul>
<b>North and East</b>	<ul style="list-style-type: none"> <li>Changes to rolling stock and train service levels were implemented in the Dec 19 timetable</li> <li>Further changes to train service levels expected in May 20 and Dec 20 timetable have broadly been deferred, as the COVID pandemic has created difficulty with driver training and levels of industry resources.</li> <li>Future changes anticipated in CP6 includes: <ul style="list-style-type: none"> <li>Additional services associated with infrastructure investment on the Harrogate branch</li> <li>Improved train service levels at locations including Scarborough, Middlesbrough and Bradford</li> <li>Train service changes in support of the delivery of TRU, such as greater operation over diversionary routes to enable infrastructure improvements to be delivered, including routes across the North West and Scotland.</li> </ul> </li> </ul>

These significant timetable interventions will be delivered in partnership with the National System Operator, funders and the operating community. We will utilise industry forums such as Event Steering Groups to manage these changes. Our approach will be flexible, customer-minded, and grounded in the principles of the Network Code. During CP6 there will be an opportunity to work more closely with the new East Midlands franchisee.

In line with our CP6 plans, we still aim to introduce the following during the remainder of CP6:

- New services from London to Middlesbrough

- Additional capacity between Newcastle and Edinburgh
- The rollout of new rolling stock on the Northern Network
- The Introduction of Bi-mode services on the Midland Mainline
- Additional capacity to Corby using Electric traction
- Split of Liverpool – Norwich services at Nottingham from December 2021
- Enhanced frequency for regional services in Lincolnshire from May 2022.
- Supporting the introduction of new Open Access Operators on the ECML
- Completing the delivery of the Thameslink
- The Elizabeth Line
- London Overground Services to Barking Riverside

With support from NSO, we plan to avoid the shortcomings of the more recent franchise changes to make certain that funders understand the capability of the network and specify the franchise service requirements appropriately.

### 4.3.2.3 Future capacity and growth

Putting passengers first Tranche 3 have seen a transfer of the SO Strategic Planning teams into the Investment Directorate. During CP6 our Investment team will support and shape the plans for CP7 and into the future. The Long-Term Planning Process (LTPP) considers options to accommodate future capacity and growth on the Route for the medium and long term, based on the output from the relevant continuous modular strategic planning outputs (CMSP).

The Route expects growth in several of its markets over CP6 and over the longer term, in line with recent forecasts published by STE. Forecasted growth is taken into consideration in the development of the Route's CRM-P targets for CP6.

## 4.4 Anglia

This section provides an overview of the Train Performance strategy, Operational Performance strategy, Capacity and timetabling strategy and Operations Strategy for the Anglia route section of the Eastern Region.

As part of the 'Putting Passengers First' programme and the creation of NR regions, Anglia passes lead route status for both London Overground and MTR Elizabeth Line to Southern Region and Western Region respectively. These operators will continue to operate across Anglia Route infrastructure, and we recognise that we maintain a collective responsibility to continue to deliver great train performance.

### 4.4.1 Train Performance strategy

2020/21 year to date has seen some strong performance delivered in comparison to the same period in 2019/20. Performance levels in the first two quarters of the year are reflective of the reduced train count and passenger ridership due to the impact of COVID 19 and the reduction in train service levels.

The uplift in performance from period 10 last year has continued its upward trend. Anglia's two lead route operators (Great Anglia and c2c) are demonstrating strong performance delivery, despite some challenging targets. Year-end targets in the most part are expected to be met.

In Year 2 of we are using the time-to-three-minutes at destination metric (T-3) for London Overground and PPM for MTR Elizabeth Line, Greater Anglia and c2c. Following consultation, we also agreed to include a measure for the Cross-Country franchise on our annual scorecard. The measure being used is 'Time loss in running Cambridge to Peterborough in the Down Direction'. There have been several key reasons for the improvement seen in train performance delivery in Anglia since period 10 2019/20, such as an enhanced focus on performance management

from both Network Rail and the Train Operators, robust tracking and management around improvement plans, targeted analysis on specific KPIs impacting performance, and a move towards leading measures to mitigate performance issues before they arise.

Three KPIs are the most detrimental to performance on the route year to date have been Fleet, Traincrew availability, External factors such as trespass and Non-Track/Track Assets. The creation of focussed 'Golden Corridor' plans have enabled us to tackle the areas and issues that impact the most and therefore offer the biggest opportunity for improvement.

Examples include, North Line (supporting London Overground performance delivery), London Liverpool St to Bethnal Green (Supporting GA and MTR performance delivery) and London Fenchurch Street to Barking (supporting c2c performance delivery).

Anglia Route Operators are all performing strongly and are forecast to hit their year-end targets. Greater Anglia and Arriva Rail London are both in the process of introducing new fleets which will provide for better passenger experience, increased performance and reliability. The COVID-19 pandemic has impacted Greater Anglia and London Overground's ability to train new drivers on the new fleets and this resulted in delays to the introduction of the new fleets to certain lines of route.

Trespass and suicides remain a real concern for Anglia Route and its operators, especially in light of the impact of COVID-19 and the uncertainty around the financial stability in the near future and the impact that this and social distancing has had on mental health. The highest degree of trespass is seen in the GE Rural Lines, WA Outer and North London Line (NLL), and the trend of trespass by vulnerable people has increased. Mitigations in place include the extension of security patrol coverage and shifts, platform end mitigations to stop people walking off platforms, anti-climb paint on bridges, and cattle grids at level crossings, mid platform fencing at Romford, enhanced embedded BTP resource and the recent introduction of mental health triage nurses.

We are continuing an awareness campaign with schools, Country Councils and care homes.

The ability to predict and prevent Non-Track asset failures between Liverpool Street to Bethnal Green station (Anglia's golden mile) is hugely important to performance and this is where we have noted several failures occurring. Analysis via a multidisciplinary review has found that track failures have the greatest number of individual incidents. Overhead line, points, interlocking and power have significantly less frequent incidents, but these rarer events have equal performance impact to track. Eighteen projects have been approved for funding, (categorised by time to implement and cost) to address this priority line of route. Great progress is being made on the Golden Mile programme, with all structural vegetation removal complete, the introduction of joint working teams with track and signalling, the purchase of incline S&C, over 750 IBJs replaced and the fitment of more RCM to point ends and track circuits. A similar approach has been taken to focussed performance improvement between London Fenchurch Street and Barking, and the North London Line.

The impact of imposed speed restrictions across the route either due to track quality issues or Soil Moisture Deficit (SMD) continue to be a concern. Examples of mitigations employed include; a speed restriction and track governance board within our weekly visualisation to help monitor and prioritise removal. A Soil Moisture Deficit Crisis Management programme has been put in place and will remain through autumn, as well as an extensive IBJ replacement (to 6-hole type) and Dutch magnet installation programme. The route has also employed a 'Speeds management Champion' who works with the delivery teams to prioritise works and keep our customers informed on progress against plans

### 4.4.2 Operational Performance Strategy

We continue to address the performance challenge areas that we have seen in 2019/20, as we move through 2020 and into 2021. We have overhauled our approach to performance management in the route,

upskilled and increased the capability of our people as well as the levels of resource deployed.

### 4.4.2.1 Immediate response

Regarding track related faults, we have implemented actions to address the high number of speed restrictions on the network,

- Sourced an increase of 20 % in tamping
- Undertaken an independent review of key performance-affecting speeds to ensure that they are required, plans to address are robust and that they are properly prioritised
- Made speed restrictions a key agenda item at all performance steering meetings including a dedicated speed management board within the Routes weekly visualisation meeting.
- Made a commitment to remove all unplanned ESRs within 28 days).

For seasonal preparedness our autumn plan has worked well every year since 2015/16 with fewer delay minutes from autumn delay reason codes. Autumn KPIs in 2019 were adversely affected by the rural interface issues that were experienced on the rural Norfolk lines with greater Anglia and the 755 fleet. Independent investigations were launched as well as the RAIB investigation which is yet to conclude, but



Figure 14: Poster from Anglia's "Every Second Counts" campaign

in the meantime a raft of additional measures have been put in place to address the problems experienced. These range from additional rail head treatment, amendments to the timing sequence of the level

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crossings, installation of treadles on HXP-3 predictor track circuits, intelligent infrastructure loggers installed at all problem sites, 148 axle counters now installed as part of the NYL project, targeted vegetation clearance of 30km at eight locations, and additional leaf fall cleaning teams to name but a few.

We have further advanced the winter plan from previous years. A key component of the winter plan is a review of the Key Route Strategy whereby we have introduced greater flexibility into the plan, which was previously route wide, and table top exercises to test our plans.

As mentioned in the introduction we have seen an increase of lineside trespass across the entire route. To mitigate this, we have enhanced the resource within our embedded British Transport Police (BTP) team within the route organisation to focus on crime related disruption as part of joint operation. They carry out patrols across known route crime hotspots and identify issues such as easy access points that could be used for trespass and vandalism. They will also attend fatalities to reduce the overall resolution time and are the route's single point of contact for the BTP.

The extension of route coverage of a specialist security contractor has also continued while we will also continue our work with the Samaritans and local authorities with incident and trauma support alongside providing training for our staff on the management of suicidal contacts.

Unexplained delays are being reviewed and the route have employed a dedicated resource (Quartz champion) whose remit is to engage with all operators, provide training and support and facilitate improvements through working with local station management teams.

The fleet category has the biggest impact on performance across three of the four main Anglia train operators. We are actively engaged with our train operators at many levels to ensure that we understand what plans are in place to maintain and improve the reliability of existing fleets, but also to facilitate the introduction of new trains. Reviews of improvement and reliability plans are carried out periodically at our respective joint performance governance meetings.

Finally, at the tail end of 2018/19 Anglia route commissioned an independent performance review, to be undertaken by the team that carried out the Holden Review on Wessex. The recommendations of which, along with the implementation of PIMS (the industry Performance Improvement Management System) will change our approach to the way we route look at performance within the control period.

### 4.4.2.2 Performance culture and governance

Notwithstanding the immediate actions that we are undertaking, we have recognised that a refreshed approach to managing performance across the route was necessary, and that we needed to both raise the profile and awareness of the performance challenge amongst all staff.

The start of the “Every Second Counts” campaign has led to a wider awareness of how all members of the route team play their part in improving performance and making Every Second Count.

We are continuing and evolving our approach to joint visualisation sessions with our operators (Performance Steering Group) that bring together NR, TOCs and freight stakeholders around the table. These sessions are analysis driven, combining tactical and strategic risk management. An increased emphasis on accountability means that there are clear “owners” for different types of delay, with associated performance improvement schemes. Refreshing the approach to root-cause performance analysis

### 4.4.2.3 Refreshing the approach to root-cause performance analysis

Whilst some of the bigger performance issues facing Anglia are easily identifiable, we are aware of the limitations of delay minute analysis. 2019/20 saw us introduce (in collaboration with Amey Consulting Ltd) access to ‘to-the-second’ data and an associated suite of dashboards and tools – Cosmo and Quartz to review in real time, worst performing trains, dwell times, and the impact of sub-threshold delay. We have also started to use PowerBI – an interactive dashboard to facilitate analysis and presentation of data with both internal and external stakeholders.

One of the key recommendations from the Holden review was for us to recognise that a single 'one toc' type approach to performance management is no longer fit for purpose. As such, the performance team has been expanded and upskilled to enable a 'Line of Route' approach to performance management.

We will be looking to continue to use the Performance Innovation Fund which was included as part of the Final Determination for specific schemes that can demonstrate a tangible performance improvement. Schemes with industry benefit will be prioritised. To date Anglia has applied for and successfully acquired funding for an innovative new 'hot rack system' that will provide assurance on the operational status of new train detection system assets prior to fitment.

Alongside that we are committed to developing and delivering a fit for purpose Intelligent Infrastructure programme for the route that improves the analytics to support a predict and prevent approach where possible. We are also increasing collaboration with our train operators to capture asset information from equipment fitted to service trains.

### 4.4.3 Capacity and Timetabling Strategy

#### Prioritising Safety and Performance

Significant timetable change is currently taking place in CP6 and Anglia has been working closely with the System Operator team to establish Event Steering Groups. These are convened to enable the smooth transition for the proposed timetable changes and include affected operators and other stakeholders. They identify and co-ordinate the challenges and potential for future timetable changes, which can be as a result of the completion of infrastructure enhancements, the introduction of new rolling stock or changes driven through franchise change. The three most significant changes on the Anglia route are:

- 1 The opening of the Elizabeth Line. The 'concept Elizabeth Line train plan' has been subject to analysis through a Crossrail Railway

Systems Model. The date for full opening of the Elizabeth line is still to be confirmed.

- 2 Planned changes to the Greater Anglia and Freight timetables on the Great Eastern Mainline. The new timetable will require the performance and economic modelling of freight and new passenger services as well as supporting power and level crossing assessments.
- 3 Planned changes to the Greater Anglia timetable on the West Anglia Mainline. The new timetable will require supporting depot and stabling works, platform lengthening works, a package of gauging works, and power and level crossing assessments as well as alignment with the East Coast Mainline changes.

Nationally, the System Operator function has developed a programme plan for Event Steering Groups providing visibility of plans to lead the industry in preparing for major timetable events. These are reported through a Calendar of Events. Maintaining performance levels with this quantum of change across multiple operators is challenging and has been identified as a significant risk. A Programme Management Office also exists, represented by train and freight operators, to consider significant future timetable change options.

Network Rail has a long-term vision to produce a 'zero defect timetable'. There is a clear strategy throughout CP6 to gravitate towards achieving this, which includes investment in the technology portfolio. Further details of this are included in the System Operator Strategic Business Plan. Anglia continues to work closely with System Operator to understand and input into the long-term planning process, notably through study project boards, and will continue to support strategies for the delivery of a rail network to meet future passenger and freight growth and demand.

### 4.4.4 Operations strategy

The Anglia route has seen a massive amount of change in recent years. In 2011, Anglia, had one owning group (National Express) that operated

c2c and Greater Anglia. After several franchise and concession awards, the number of owning groups has increased to 5. Moreover, each TOC has a different enforcement regime and control centre. This has turned a relatively simple operation, into a very complex and demanding one. However, despite these changes, we control and command the railway in broadly the same way, we did in CP4.

In 2007, Network Operations recognised a change was needed and created a Network Operating Strategy (NOS), which developed an operating concept, roles and processes, to run the railway much more effectively and efficiently for the benefit of passengers and freight companies. To trial this model 3 candidate route areas were identified, including Thameside on the Anglia route, along with Wales and East Midlands.

For Anglia this would mean a major people, process and technology change and the establishment of “Pod” working (A integrated set of roles and responsibilities designed to control the running of the railway in an effective manner) at the Romford ROC. Followed by a migration of 90 % of all signalling to the Romford ROC, using the “Pod” model and Traffic Management by the end of CP6. Following a number of technical challenges, this was abandoned in 2018 and it was decided to descope the programme to leave Thameside at Upminster, albeit with a basic Traffic Management system, upon which to build a local Anglia Strategy in due course.

Learning the lessons from NOS, Anglia is now in a position to develop a local strategy for Operations, which this document sets out. A strategy for Anglia Operations developed and delivered by local operators.

In 2018, the industry suffered from a continuing trend in poor performance. This led to the Office of Rail and Road (ORR) issuing a ‘provisional order against Network Rail to deliver improved performance’ on the 29th November 2018. Network Rail responded to the provisional order by committing to the ORR in February 2019, to undertake the following:

- Establish a new performance management system that will enable a clearer understanding of the factors that contribute to delays;
- Address improvements in the response to incidents and in the time taken to recover a normal service after disruption;
- Increase operational capability through additional staff training and recruitment; and
- Work in collaboration with train operators to deliver a better service for passengers.

Anglia had also seen a steady decline in performance, where PPM MAA (Public Performance Measure Moving Annual Average) had dropped 2 % from target. A deep dive review into how Anglia manages performance was led by Michael Holden in early 2019, which identified several flaws in performance management and incident recovery.

As a result, the Operations Director for the route has requested, that a systematic change in how we operate the railway is required, focusing on People, process, technology and organisation.

There are some key areas to focus on below that require change, if we are to meet the challenge at hand, these are:

- Safety – continue to improve (specifically Mental Health & Fatigue)
- Training, Culture, Competence & Leadership – We need the right people in the right jobs
- Technology and Information - Much of it is old, expensive to maintain & life expired
- Performance Improvement – Effective & efficient industry operating model
- Customer Information – Passenger Information During Disruption (PIDD) improvements & better communications to passenger and freight customers.

### 4.4.4.1 Safety

The safety culture within Network Rail has improved significantly over the last 15 years, and initiatives such as the 'Life saving Rules' and 'Close Calls' have helped with continuous improvement. However, to maintain and improve the safety culture, we need to support our leaders to do less administrative tasks and help our operators improve their work life balance. Areas that need a rigorous focus for this and next control period are as follows:

- Addressing RAIB recommendations - We will review the recommendations in this report and develop implantation strategies.
- Fatigue Management – Our signalling locations are built on overtime and many of our people are working to the limit of hours possible within a week. The latest fatigue risk management standard (NR/L2/OHS/003) shows that Anglia need 6 additional signallers (or equivalent flexi ratio) to be compliant;
- Mental health related illness is increasing within society and there are several schemes, such as Vallidium and Trauma Risk Management) to support our colleagues. The ratio of LOMs to Signallers is very high (1 to 40), when compared to similar transport industries (such as TOC's) which can hinder supporting these schemes; and
- Accident and Investigations are normally carried out by busy Local Operations Managers and the quality can vary depending on skill set and underpinning knowledge of the LOM.

### 4.4.4.2 Training, Culture, Competence & Leadership

The Chief Exec have stated that there is a knowledge gap within Network Rail, in regard to understanding 'the whole system. Privatisation has created a railway, where Operations colleagues spend all their working career at either a Train Operator or Network Rail.

This coupled with lots of our more experienced operators retiring or leaving rail, has led to issues with a lack of underpinning knowledge to deliver a consistent timetable for our passengers. Moreover, our leaders are given little training on leadership which in turn creates a structure

that allows for many of our leaders to be less competent than their direct reports. Therefore, we need to develop training, to support our current operational staff, whilst having the ability to attract people from other parts of the business to help with diversity and culture change. In order to address the challenges above there needs to be focus on the following initiatives:

- Leadership courses - Supplied by the (IRO) Institute of Railway Operators (for some years there has been a considerably high turnover of LOMs)
- Training for controllers (There is currently no formal Controller training package)
- Ops conversion courses (There is only one person in the AICC that is not from an operational background)
- Culture – Identify existing culture status, set out a strategy to improve culture throughout Anglia

### 4.4.4.3 Technology and Information

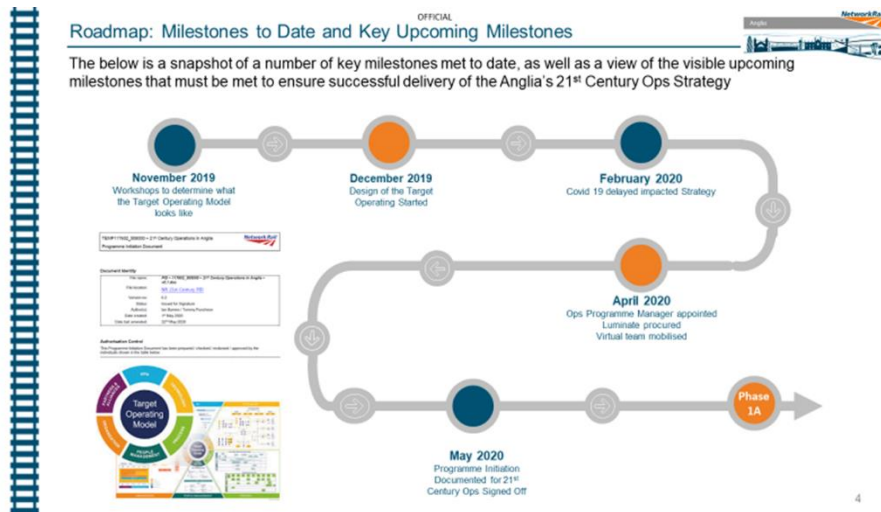
Much of the technology and information we use to operate and control the railway was designed and implemented in the 1980's and 1990's. It is also very expensive to maintain, with some skills/spares in short supply. Whilst some improvements have been made in terms of system upgrades etc. the core design principles remain unchanged. We need to embrace information and develop systems and processes that exploit information to deliver Performance Improvement.

### 4.4.4.4 Performance Improvement

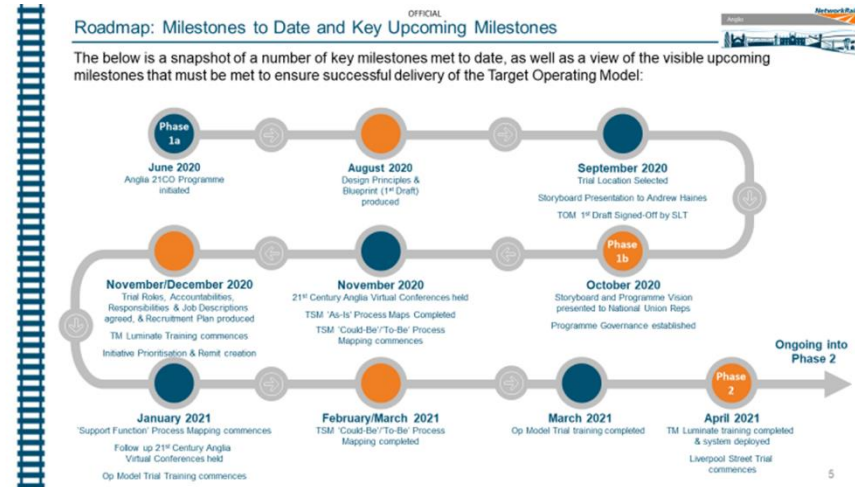
The one TOC mentality noted in the Holden report is emphasised in how our Anglia Integrated Control Centre (AICC) is structured. This has broadly remained the same for the last 15 years despite Anglia now having to work with 7 different control centres as opposed to 2 control centres in the past. The Holden report mentions that intervention with the timetable is required more than ever due to an increase in the amount of trains per hour. The Ops model needs to focus on the following:

## Eastern Region Strategic Plan

- Train Service Management – Train Operators are contracted run a near max capacity – Quick decisions are required to minimise the impact of an incident. Our current operating models, processes and procedures do not adequately support this.
- Response and Recovery - Anglia in 2019 were -2 % from target and the industry faced huge reputational damage
- Data quality – Root cause data is often not understood due to current processes
- A more effective CONOPS to support our new multi TOC way of operating the railway.



### 4.4.4.5 Customer Information



We need to improve how Controls communicate with stations and, in turn, passengers. This will build on and improve Passenger Information During Disturbance (PIDD) by configuring, integrating and exploiting our information systems. The goal is to provide access to information at source to all stakeholders. Thereby maintaining consistent/accurate updates and building customer confidence.

## 5 Customers & Communities

### 5.1 Context

The Eastern Region has one of the broadest range of stakeholders of all Network Rail Regions – ranging from local authorities in cities like Leeds and Norwich to regional authorities like Transport for London (TfL) and Transport for the North (TfN). We have the largest number of TOCs within our Region, many of whom operate across multiple regions, therefore stakeholder engagement and consultation remain integral part of our day-to-day business in order to deliver the train services, local and regional connectivity our passengers want.

Eastern is also one of the most devolved Regions within Network Rail. It is formed by four individual Routes who operates autonomously and have all developed the most suitable engagement mechanisms aligned with the needs of their individual stakeholders. This has included working around the challenges imposed by COVID-19 but also exploiting some of the opportunities that have brought along, including the use of new technologies that have enabled working even more closely with our stakeholders.

### 5.2 Overview

This section looks at our approach to interacting with customers, passengers and stakeholders. We recognise the importance each of these parties has on the success of the Eastern Region, as such it remains a priority to consider the needs of each of these groups independently. Our vision for Stakeholder engagement is:

***‘Putting our passengers and freight customers first by enabling and empowering our people’***

Our new vision and values are shaping how we act and the decisions we make, ensuring our people work together to support our stakeholders. Eastern Region continues to recognise the benefits and importance of

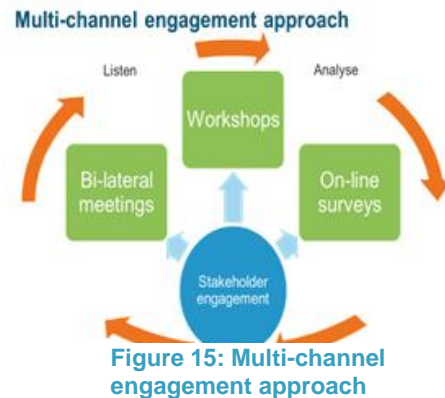
comprehensive stakeholder management. Over the last 12 months our business has changed rapidly as we work towards a more devolved organisation, we view this as an opportunity to move from a more transactional to a personal relationship with our stakeholders. The analogy we like to use is that of a corner shop which is local, trusted and approachable as opposed to a large supermarket which can be faceless, impersonal and difficult to navigate. This more local approach underpins our desire to become much easier to do business with.

Whilst we recognise the necessity to have formal governance and plans in place we are keen that our people nurture relationships with our stakeholders at a local level. By getting to know individuals it is much easier to identify priorities, issues and concerns and work together to resolve them. Eastern Region works dynamically using multiple channels to support and communicate with our wide variety of stakeholders. We recognise that by taking a more flexible approach, we are able to adapt to support their individual requirements. More details of our specific engagement strategy for CP6 is set out below.

Our Freight and National Passenger Operator Partners also have a unique set of requirements. As part of our Engagement Strategy we also plan to work closely with our FNPO Team to ensure we offer the appropriate level of support and that we minimise the number of touchpoints they have with our business.

### 5.3 Stakeholder Engagement Strategy

Our stakeholder engagement strategy is based on a multi-channel engagement cycle (i.e. Listen, Analyse and Respond) that entails working collaboratively with all of our stakeholders to deliver a brilliant passenger and freight operator experience and a safe environment for our colleagues.



We want to implement business model where we will:

- Encourage all of our stakeholders to come together as an industry to drive improvements for our passengers and freight operators.
- Be fully inclusive and transparent and listen to how our stakeholders want us to engage with them.
- Create a business where all of our people role model the values and understand our vision with fully devolved and clear accountabilities.

In summary, we want to have an open and dependable partnership with all our Stakeholders. We want our Stakeholders to be our critical friend, the voice of our passengers and an advocate for our Region and Industry. As our business and operating model changes and we move towards deeper devolution we see a real opportunity to make a difference.

## 5.4 East Midlands

### 5.4.1 Stakeholder Engagement Strategy

The East Midlands Route continues to recognise the benefits and importance of comprehensive stakeholder management. Over the last

12 months our business has changed rapidly as we work towards a more devolved organisation, this has given the route an opportunity to move from a more transactional to a personal relationship with our stakeholders. This has allowed a more local approach which underpins our desire to become much easier to do business with.

Whilst we recognise the necessity to have formal governance and plans in place, we are keen that our people to nurture relationships with our stakeholders at a local level. By getting to know individuals it is much easier to identify priorities, issues and concerns and work together to resolve them. The East Midlands Route works dynamically using multiple channels to support and communicate with our wide variety of stakeholders. It has been recognised that by taking a more flexible approach, the route is able to adapt to support their individual requirements.

### 5.4.2 Our customers and stakeholders

TOCs	Government	Transport Authorities

#### 5.4.2.1 Customer and stakeholder engagement

The East Midlands Route has engaged with its stakeholder using the multi-channel engagement approach and this has created a step change in our stakeholder engagement with the follow examples showing the approach coming to life. However, one of the biggest impacts to the route gaining the full potential of its engagement strategy has been the COVID 19 pandemic. This has meant to way we have engaged with our stakeholders have changed using technology, but also the priorities of the stakeholders and network rail have changed and so has the rail

industry commercial settings. On a positive note we have seen train performance overall improve through collaborative working with our stakeholders through very challenging circumstances.

### 5.4.2.2 Collaborative relationship with our stakeholders and prioritisation needs

#### Example 1 - East Midlands Railway.

Abellio Group were awarded the East Midlands franchise in 2019, our teams worked together to achieve a successful transition from EMT to EMR. We quickly identified the priority areas of engagement during mobilisation, assigning owners from each organisation and agreeing our governance and methods of working. This high level of engagement in these early stages formed strong foundations on which we have developed our Alliance. Our Alliance Agreement comprised of 14 joint tasks including 105 joint initiatives that align to objectives to improve customer satisfaction through improved operational performance as well as whole industry efficiencies.

- A governance structure been created with an Alliance Delivery Board been accountable for pursuing the Alliance purpose and objectives including joint workstreams – Performance, Safety, Stations, Depots.
- We have jointly developed and begun to deliver 7 joint projects encompassing over 30 joint initiatives, and have embraced the Alliance as part of business as usual working, introducing a common shared IT workspace, joint attendance at customer events and the implementation of the new EMR Service Quality Regime.
- We launched a joint performance policy across both organisations to address operational performance which is delivering ‘green shoot’ improvements and agreed and implemented extreme weather contingency plans. Station Masterplan Meetings have been set up to include other external stakeholders such as councils with the aim of improving the wider station environment bringing together 3rd party funds, Network

Rail funds and EMR franchise obligations.

#### Example 2 – Govia Thameslink Railway.

Our teams work closely with GTR who operate on the MML from Bedford into St Pancras. We have introduced an Area Improvement Team on the Thameslink North focusing on the First 50 miles and have jointly developed along with BTP several initiatives with the aim of reducing crime, improving safety and train performance.

The launch of our joint Communications Review Group has enabled us to share safety communications with all frontline staff which has raised awareness, encouraged joint learning and best practice. The relationship between our front-line staff has developed over the past 12 months, with the encouragement of cross functional visits for drivers and signallers, this has provided a greater understanding of roles and day to day challenges.

The performance of Luton Airport Parkway lifts has deteriorated over the past 12 months and our Customer and Asset teams have worked collaboratively with GTR to complete interim repairs, obtain spare components for site and to accelerate the renewals from CP7 into 2020/21 (July- Nov 2020). Our teams have worked closely with Luton Airport to develop our communication strategies, passenger plans and our engagement strategy with external stakeholders such as Rail User Groups, MP's and councils.



Figure 16: Luton Airport Parkway. New lift in P1

### 5.4.2.3 Regular customer and stakeholder engagement activities

Our team carry out regular 360 Pulse Surveys to capture what's working well, identify areas of focus, monitor confidence in delivery and levels of engagement. The surveys also provide the opportunity for us to

## Eastern Region Strategic Plan

celebrate our successes, raise items for awareness and the opportunity to raise any issues for escalation. The results from the surveys form part of our Alliance Board Meetings and often instigate valuable discussions.

These surveys have proved to be beneficial with many leading to improvement initiatives, examples being our recent Joint Safety Improvement Plan workshop to identify new areas of focus and creation of 3-year joint plan. Also, from the Pulse surveys we created “you said, we did” action plans.

Network Rail have also undertaken a listening programme as part of Putting Passengers First (PPF) initiative, feedback from XC highlighted concerns regarding the restructure within the Routes and Regions. Our Route Director and Customer Manager met with XC Head of Performance to discuss the changes and to fully understand the impact to XC, providing reassurance and putting measures in place to help.



Figure 17: Example EMR/NR Pulse survey results

### 5.4.2.4 Aligning stakeholder needs to long-term business objectives

The East Midlands route will enhance its stakeholder engagement through creating joint relationship plans with the TOCs. This allowing us to understand our strategic relationships with each TOC, the gaps in our relationships and review the focus areas with each TOC. The continued strengthening of the Alliance with EMR focusing on embedding collaborative working behaviours and the Joint tasks and initiatives. Plus working with all industry partners to adhere to government guidelines regarding the COVID-19 impact and assist with the rail industry's

recovery. Also, as part of our Engagement Strategy we will work closely with our FNPO Team to ensure we offer the appropriate level of support and that we minimise the number of touchpoints they have with our business.

## 5.5 East Coast

### 5.5.1 Our customers and stakeholders

TOCs	Government	Transport Authorities

#### 5.5.1.1 Customer and stakeholder engagement

During FY21, we have expanded and built upon our stakeholder engagement strategy and have delivered the following improvements:

- Held a number of joint NR / TOC workshops in order to improve the customer experience and make NR easier to do business with
- Set up a periodic lift call with key stakeholders to drive pro-active interventions to improve performance as well as a deep dive workshop on lift performance and impacts at Kings Cross and York.
- Completed Pulse Reports in line with Alliance Board and Level 1 meetings, ensuring key issues are captured and followed up with pro-active actions to resolve via our You Said We Did report
- Provided Hull Trains with monthly “Good News” messages to share with their passengers.
- Completed deep dive workshops with our stakeholders to identify opportunities and solutions to long-term challenges.

## Eastern Region Strategic Plan

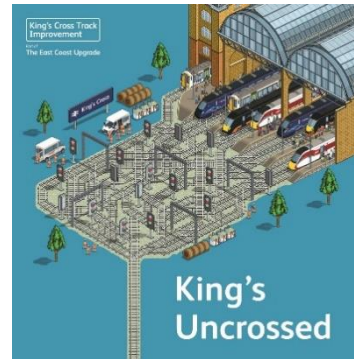
- Set up a joint bi-monthly Performance Newsletter with LNER celebrating achievements and new initiatives across both organisations
- Supported the East Coast Performance Board, providing minutes, actions and reporting packs for all TOCs who interact with the East Coast route

### 5.5.1.2 Collaborative relationship with our stakeholders – East Coast Partnership

The East Coast Partnership with the DfT, Network Rail and LNER is an example of the collaborative way of working that we are implementing with our stakeholders. The East Coast Partnership launched 12 key priorities overseen by the Partnership Charter. Some ongoing successes include:

- Implementing a 'One Team' culture at Kings Cross to help all passengers
- Aligning our behaviours, objectives, targets and incentives
- Piloting a new approach to Schedule 8 to better align incentives and behaviours to improve our understanding of the root causes of delay and improve performance
- Appointing an industry Programme Director with responsibility and accountability to deliver changes and realise benefits for passengers
- Appointing a joint Head of Performance to embed a systematic approach to improving performance

Another example of how we engage with our stakeholders is the multi-million-pound investment into upgrading the infrastructure at King's Cross railway station. The upgrade aims to transform train travel on the East Coast Main Line (ECML) from London via the replacement of track, signalling and overhead line equipment outside the station. Undertaking this work delivers a significant benefit to customers through reduced journey times, greater efficiency in timetabling and reduced congestion, resulting in greater network resilience and reliability.



**Figure 18: Poster from King's Cross Throat works**

The upgrade required a shutdown of services from King's Cross over two weekends in July and August 2019 so that majority of the work could be undertaken with further work scheduled for 2020/21. To ensure customers remain informed both of the project and the shutdown periods, regular updates are provided online, both on the Network Rail website and on the East Coast Upgrade website.

#### 5.5.1.3 Regular customer and stakeholder engagement activities

Our team carry out regular 360 Pulse Surveys to capture what's working well, identify areas of focus, monitor confidence in delivery and levels of engagement. The surveys also provide the opportunity for us to celebrate our successes, raise items for awareness and identify any issues for escalation.

Network Rail have also undertaken a listening programme as part of Putting Passengers First (PPF) initiative.

The feedback from Grand Central highlighted concerns regarding the restructure within the Routes and Regions including the geography of the Route. There was a real desire for Network Rail to closely align with the TOCs and FOCs on the route to best serve our passengers.

## Eastern Region Strategic Plan

Hull Trains commented that the changes through the Putting Passengers First programme (PPF) had enabled stronger engagement with Network Rail with the opportunity for more consultation and joint working across all levels of the business.

Feedback from LNER supported the strong relationships that have developed through the new Route structure enabling concentrated focus on key issues. Devolution through PPF gave the opportunity for improved communication, further collaborative working to serve our passengers and the chance to bring expertise into the Route.

Our Route Director has discussed this feedback with each of the organisations to understand the impacts and opportunities and discuss how the new organisation will best support the East Coast Route

During the last 12 months we have seen a significant impact on our passengers, colleagues and stakeholders as a result of the COVID-19 pandemic. During this period, we have all adapted to upgraded technology which has enabled continued interaction, engagement and support of our stakeholders.

Figure 19 and Figure 20 show some examples from the outputs in FY21 Period 7.

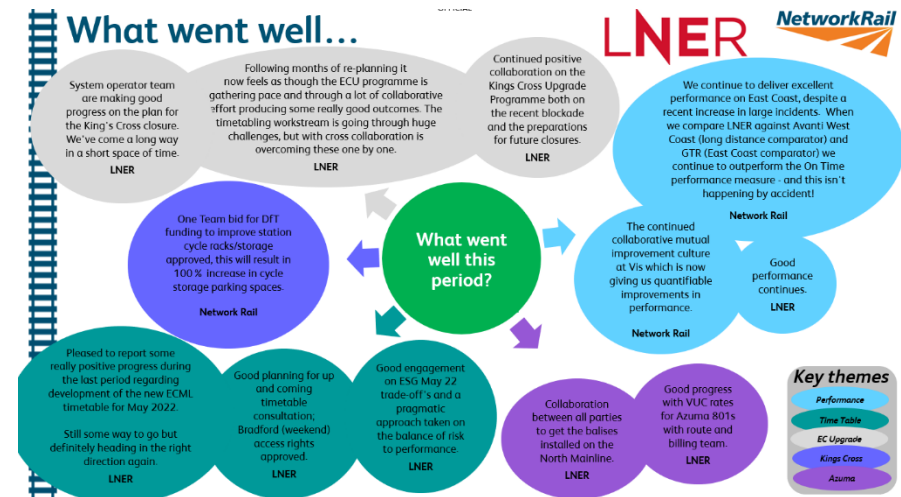


Figure 19: Pulse Check Results – What went well – P7 FY21



**Figure 20: Pulse Check Results – What’s not going so well – P7 FY21**

### 5.5.1.4 Aligning stakeholder needs to long-term business objectives

The East Coast route will continue to identify key challenges, pro-actively bring stakeholders together to resolve issues and will act as a key point of contact in Network Rail for both escalation and support for TOCs on the East Coast route. In addition, the East Coast Team will:

Continue to support the East Coast Partnership project, providing support, guidance, and expertise in delivering the strategy

Continue to support the East Coast Upgrade and the passenger experience working group ensuring full and robust plans in place for high impact blockades during 2020/2021.

Continue to work with all industry partners, to adhere to government guidelines regarding the COVID-19 impact and;

Identify the Top 3 issues with each TOC and develop a plan to address them together ensuring success is clearly identified.

### 5.5.2 Our customers’ priorities and how we have addressed them

The engagement activities outlined above have enabled us to develop a view of our customers’ priorities during CP5 and CP6.

At a strategic level, our customers’ priorities are aligned around performance, customer experience, and timetable improvements. Both LNER and Hull Trains have deployed the majority of their new fleet and along with the East Coast Upgrade this will allow more services to run, deliver quicker journeys across the route along with improved train journey reliability. Each operator has also committed to challenging performance targets. Meeting all of these priorities present a challenge as performance improvements cannot all easily be achieved at the same time as increasing intensity of usage of the network without significant

increases in funding. In addition, a number of our customers have concerns about Access Planning and unplanned disruption, weather resilience measures and vegetation management.

Within our CP6 strategy we have therefore had to make difficult decisions about how to balance sometimes competing and conflicting priorities within a constrained funding envelope.

## 5.6 North East

### 5.6.1 Our customers and stakeholders

TOCs	Government	Transport Authorities
    	 Department for Transport 	 BRITISH TRANSPORT POLICE 

#### 5.6.1.1 Regular customer and stakeholder engagement activities

We lead the management of relationships with Nexus and SuperTram and work closely with North West Route, to support the management of relationships with Northern and TransPennine Express (TPE).

We engage with our operating company colleagues to develop collective plans for the benefit of passengers and freight end-users across a series of forums and fora. For example, we hold periodic Alliance Boards, lead train plan assurance meetings (across four stages of the train plan preparation lifecycle) and contribute towards ongoing relationship resetting activities.

The frequency of meetings and engagement varies, but scheduling means that, as a minimum, there are weekly touchpoints. With the current level of effort and energy being applied to improve and reset relationships, engagement activities are almost at daily levels.

Meetings are guided by relevant materials. These can include sharing of

organisational charts to describe organisational changes related to the Putting Passengers First programme and sharing progress updates against scorecard or control period targets. We are transparent with the information shared with operating company colleagues.

### 5.6.1.2 How we deal with our stakeholders needs and manage potential issues

- Ways of stakeholder engagement: The effectiveness of engagement activities can be characterised as good. The relationship with Northern and TPE, continues to become stronger. Collectively we are making better decisions for passengers in the North. Collaboration is high and we are beginning to apply some of the best-practice principles of ISO 44,001 - collaborative business relationship management systems.
- How we dealt with refranchising: The Route has contributed towards supporting the ongoing development of operator agreements. We have contributed towards the development of the Emergency Recovery Measures Agreement (ERMA) and are working closely with operators contracted by an ERMA to successfully deliver against qualitative outputs. We continue to provide support to operating companies to successfully deliver these agreements and to develop the next generation of agreements,
- Management of cross-Route implications: we enjoy a close and productive working relationship with adjoining Routes. We recognise that a railway needs to be developed and operated as a network and a system. There are daily and weekly touch points between North West, North & East, East Coast and Scotland. For example, the customer manager for Scotland's Railway is a member of the TPE Alliance Board to reflect the consideration that is required to successfully deliver cross-border services.

### 5.6.1.3 Collaborative relationship with our stakeholders and prioritisation needs

Stakeholder requirements can vary. Above all, we recognise the need for stakeholders to feel that we are on the side of passengers. Stakeholders need us to be easy to engage with – so that means we have worked hard to ensure that there are single points of contacts and that colleagues demonstrate accountability for these actions. Furthermore, we recognise the need to be more efficient, noting that some of our operators have lean organisations, and are more increasingly considering delivery in terms of the end to end efficacy of processes to limit avoidable activity upstream or downstream of our contribution.

Stakeholder priorities are understood and ranked through collaborative and honest discussion. We take cognisance of their commitments and obligations, alongside passenger and freight end-user feedback. These insights, augmented with our own commitments and obligations, enable us to prioritise effectively and achieve economies of effort required to deliver and embed activities.

### 5.6.1.4 Aligning stakeholder needs to long-term business objectives

North & East Route has a simple vision to provide safe and reliable assets, to deliver a high performing timetable. Our planning activities, management of infrastructure and operational delivery are all oriented towards delivering - our promise to passengers and freight end-users – the timetable.

## 5.7 Anglia

### 5.7.1 Our customers and stakeholders

#### Engaging with our customers and stakeholders

Customer and stakeholder engagement is a critical part of Anglia route's business. Putting passengers, freight customers and the public at the heart of everything we do, getting the insight,

input, expectations and views of our stakeholders from customers and supply chain partners, politicians, residents and businesses is extremely valuable. Stakeholder engagement enriches our decision-making, increases our accountability and improves our ability to understand and anticipate emerging trends and perspectives that might impact on our ability to run a railway that serves the public and 'UK Plc'.

We are aware that stakeholders' needs are always changing, so our annual programme of engagement enables stakeholders to inform our plans and help us deliver for our customers.

Anglia route engages with various stakeholders in different ways. This strategy seeks not to dictate the nature of engagement, nor to constrain it in an overly prescriptive manner, but to bring together the various strands of engagement, undertaken by many people in the route, into a coherent whole so that the full extent of our engagement can be seen, allowing for improvement opportunities to be identified and implemented. Table 4 outlines purpose of engaging with each group, the frequency of engaging and the responsible contract from the Route.

### 5.7.1.1 Recent customer and stakeholder engagement

The following examples demonstrate the approach the Anglia Route has taken to engage with local communities across different projects since the beginning of CP6.

## Platform Extensions – Waterbeach and Littleport

**Figure 21: Waterbeach Station**



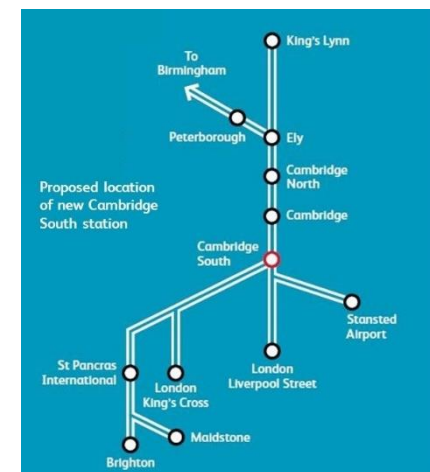
Since the start of CP6 Anglia has consulted on two platform extensions at Waterbeach and Littleport stations, and new stabling at King's Lynn.

The work will enable longer trains to be run, creating more seats on trains during peak times and a better passenger experience. To communicate the upgrades, three events were held with local communities in Cambridgeshire and Norfolk to

learn more about the work and understand the benefits. The drop-in sessions were run by Network Rail and contractor Volker Fitzpatrick so that local residences and businesses can speak with the project team.

## New Cambridge South Station

Work is proposed to be undertaken in the vicinity of the Cambridge Biomedical Campus to improve connectivity in the Cambridgeshire region and nearby local hospitals and housing developments. A public consultation was recently launched in January 2020, with a number of events planned to enable the local community to be informed of the proposals being put forward, including three possible location options, early designs for the stations and possible access. The consultation process is expected to



**Figure 22: Consultation on the New Cambridge South Station**

run for six weeks closing on the 2<sup>nd</sup> March 2020.

### 5.8 Station Management in Eastern Region

Improving stations for passengers across the Eastern Region is a shared priority. This is to enhance passenger experiences, improve capacity for the Routes through new stations and support connectivity across local communities. Stations have also been the shop window for a lot of the industry's work to combat the impact of COVID-19 to keep both our staff and passengers safe. Our three managed stations in Eastern have all adapted the way they are run, with one-way systems, additional cleaning regimes, providing anti-bacterial products and masks, as well as clear information and guidance on social distancing and how to stay safe.

An example of this, is the management of Kings Cross Station, where a number of joint COVID-19 plans with our stakeholders have been successfully introduced. These included initial use of one-way systems, updated COVID-19 station signage and floor vinyl's, information screens and posters, with guidance for everyone using the station.

It also involved enhancing the cleaning regime, provided hand sanitisers and upgraded our toilet facilities to touch free where possible. Finally, it introduced highly trained Journey Makers, a role put in place to support our passengers while also ensuring the station is a safer environment to be.

The following examples outline a few other station initiatives that have been rolled out across the Region:

- **Enhanced connectivity:** The new station Meridian Water in Enfield was opened in June 2019 to tackle congestion and boost regeneration in the region. This was delivered as part of the Lee Valley Rail Programme and supports the region of Enfield which is seeing £6 billion of development in housing and job creation.
- **Increasing capacity:** The development of Platform Zero at Leeds Station will help to reduce train congestion and support the city's growing demand for rail travel, given Leeds is the North's busiest railway station. The work is ongoing with expected completion by

early 2021 and regular updates provided to those impacted

**Improving passenger experiences:** Liverpool Street Station removed the cost to use the public toilets last April which fulfilled Network Rail's wider commitment to make toilets 'free to pee' across all its 19 managed stations. In 2020, the toilets were completely refurbished to improve the passenger experience at the station. As well as introducing cutting-edge interior design, the new toilets will help to reduce the spread of coronavirus. The flushes, taps, soap dispensers and hand dryers are all touchless, while the sinks have an anti-viral coating.

Other improvements to London Liverpool Street include the addition of water fountains to encourage environmental sustainability practices and greater awareness of both hidden and visible disabilities. We have also introduced recycling coffee cup facilities and installed eco-friendly seating. The number of seats available at the station has increased by 98 per cent.

Table 4: Anglia's Stakeholder Engagement Framework for the remainder of CP6.

Method of Engagement Stakeholders	Purpose & scope of engagement	Expected Output	Frequency	Stakeholder	Key route contact
Route Supervisory Board	Cross industry working (ToR)	See ToR	Quarterly	TOCs/FOCs/Passenger group	RMD Anglia Route
Great Eastern Taskforce	Inform on delivery progress and agree on strategic focus for region's future railway.	More informed and engaged stakeholder. Funding secured for future projects.		MPs, TOCs	PRP, System Operator
<b>BAU: Other Engagement</b>					
Annual Report	Update stakeholders on delivery progress.	More informed and engaged stakeholder. Fewer complaints. Potential for advocacy / support for funding.	Annually	Customers, MPs, LAs, councillors, LEs, business groups, rail interest groups, passenger organisations.	Head of Route Communications
Periodic stakeholder email update	Update stakeholders on delivery progress.	More informed and engaged stakeholder. Fewer complaints. Potential for advocacy / support for funding.	Periodically	MPs, councillors, rail user groups.	Public Relations Manager
Pre-notification of works	To advise of noisy or physical disruption to resident or business.	Reduction in complaints.	As required	Lineside neighbour	Community Relations Manager
Post- works neighbour survey	Assess engagement and learn lessons.	Better understanding of our engagement.	As required – trial	Lineside neighbour	Community Relations

Please note that the above table is still in development and should not be considered final.

## 6 Sustainable Growth

### 6.1 Context

The Eastern Region remains committed to the Renewals-focussed CP6 plans proposed by the former LNE&EM and Anglia routes during the PR18 Final Determination. Renewals, will be the Region's key focus to sustain asset performance given the recent traffic growth experienced across the Region in CP5 and further expected traffic growth expected in CP6. A busier railway and ageing assets impacts asset sustainability across the region, meaning targeted interventions are required to renew assets and sustain train performance. Securing access remains challenging on a busier railway, however new tools and techniques being developed and introduced on the railway give us massive potential to plan interventions more effectively and improve the efficiency of maintenance.

### 6.2 Overview

This section of the document is structured as follows:

- Section 5.3 provides an overview of the Asset Intervention Strategies set out in N&E, EM and EC, and Anglia Route plans across the seven asset areas. These summarise the main drivers of interventions and plan outcomes.
  - Sections 5.4 and 5.5 set out how Region will meet its responsibility to support the Government in managing environment and sustainability risks and opportunities.
- Sections 5.6 and 5.7 contain individual strategies for Technology (R&D) and Innovation. They explain our plans to continue rolling out new technologies such as PLPR and the use of new technology and data analytics to help us better understand delays.
- Section 5.8 sets out our Asset Management Capability
- Section 5.9 sets out the Region's approach to Maintenance including

#### Prioritising Safety and Performance

initiatives to increase efficiency and effectiveness of maintenance by deploying new tools such as PLPR, Eddy Current and Intelligent Infrastructure

- Section 5.10 sets out the Region's initiatives around Access Planning to ensure
- Our approach to Delivery is set out in Section 5.11

### 6.3 Asset Intervention Strategy

#### 6.3.1 North & East, East Midlands and East Coast

The region will minimise Safety, Performance and Reputational risks across the asset portfolio within funding constraints. Assurance work undertaken by Safety, Technical and Engineering was also considered in refining final allocations of budget. We will as far as possible mitigate funding constraints through our robust process of benchmarking and challenging unit rates. However, the overall upward trajectory in unit rates seen in CP5, as well as revisions to unit rates throughout the CP6 planning process has meant increases in volumes to a level required to maintain high asset performance has been limited. The risk outcomes and scorecard for the EC, N&E and EM routes is summarised in section 5 of the LNE&EM Route Strategic Plan (March 2019) which also sets out the impact of the below strategy in terms of CRI, CSI and key volumes.

In summary, each of our asset types has a distinct strategy and targeted plan for interventions during CP6. Our plan will deliver schemes across each of our asset types, the following table outlines a selection of key trade-offs that were made between assets types during the budget allocation process for CP6. For further detail of interventions taking place across each asset type, please refer to Section 5.3 within the LNE&EM Route Strategic Plan (March 2019).

**Table 5: A selection of key risks and trade-offs considered during the CP6 budget constraining process for EC, N&E and EM.**

Asset	Risks	Decisions to Mitigate/Manage Risk
<b>Track</b>	Pre-1978 con-cast rail creates risk of contact fatigue and is more prone to failure.	Increased volumes of Plain Line renewal compared to CP5 - this is being targeted at areas of high criticality and where likely to impact performance.
	Track failure resulting from weather related incidents	Reallocating drainage budget to a dedicated Route Engineer (previously RAM) (Drainage and Off-Track) with a workbank of interventions to reduce risk.
<b>Structures</b>	Significantly aged assets could pose a performance and safety risk	Risks managed by doing a greater volume of lowest initial cost life-extension related works will take place in CP6 to reduce risk over greater proportion of the asset base. Minor works budgets increased to cater for expected reactive works.
<b>Buildings</b>	Risks to passengers from slips, trips and falls at stations due to uneven platform surfaces	Full renewals of platform surfaces at major stations such as Leeds and King's Cross.
<b>Earthworks</b>	Risks to performance and safety as a result of extreme weather and deterioration of ageing assets	Develop better understanding of the risks from the aging asset base using current and new technology and tools. Improvement in drainage system management.
<b>Signalling</b>	Significantly aged cabling types pose	Increased volumes of life extension work types (WT52s) as

Asset	Risks	Decisions to Mitigate/Manage Risk
	risks to signaling systems	opposed to full renewals (WT3s)
<b>E&amp;P</b>	Significantly aged wires pose a risk to performance, particularly given planned service increases and new rolling stock	Wire runs renewal volumes have been removed from our plans but corresponding increases in heavy maintenance OLE works have been added to increase asset resilience.

### 6.3.2 Anglia

For the Anglia route, the proposed renewals workbank has been prioritised according to asset policy compliance, safety and performance. Due to ageing assets, asset obsolescence, increasing traffic and deferred renewals from previous control periods, the work to be completed in CP6 is greater than in CP5 This enables a minor improvement in infrastructure asset reliability and therefore the number of service affecting failures is forecast to reduce across CP6. Maintenance activity will remain a critical factor in sustaining the levels of asset reliability.

The following table outlines some of the key outputs to be undertaken per asset area across the Route.

**Table 6 Key outputs per asset area**

Asset area	Intervention strategy and expected outputs
<b>Cross-asset prioritisation and maintenance/renewals balance</b>	<p>The asset intervention strategy focuses on maintaining asset reliability within deliverability and funding constraints. Priority has been placed on delivery of the route's strategic objectives, specifically around supporting the additional demand on assets to enable an uplift in passenger and freight volumes.</p> <p>The output of this is a CP6 workbank that is considered to be sustainable – in that it is</p>

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Asset area	Intervention strategy and expected outputs
	<ul style="list-style-type: none"> <li>Not creating undeliverable peaks for future renewals</li> <li>Is affordable, in that the total cost is within the route allocation of the SoFA set by DfT</li> <li>Is deliverable, in that the volume of work can be delivered with the resources available</li> </ul>
<b>Track</b>	The CP6 renewals workbank is expected to deliver an improvement in track CRI and an improvement in SAF at the exit of CP6. The total delivered track volumes across all activities in CP5 was 4 % higher than the forecast volume for exit of CP5. Items within the track workbank are supported by individual problem statements, site specific renewal proposals, risk assessment and prioritisation sheets.
<b>Signalling</b>	<p>The CP6 plan comprises of two major interlocking renewals, two signalling re-controls, four life extension schemes, a volume of level crossing refurbishment, and is independent of anything proposed as part of the Digital Railway programme. The two major renewals are Cambridge and Clacton both of which have been deferred from CP5:</p> <ul style="list-style-type: none"> <li>Cambridge: Only Cambridge Interlocking will be re-signalled; however, life extension and re-control works will take place on the Cambridge outer interlockings to control costs</li> <li>Clacton: The mechanical systems will be replaced with equipment to match the mainline signalling system that was delivered by Colchester to Clacton in CP4</li> </ul>
<b>Structures</b>	A comprehensive review of the structures portfolio was undertaken which identified all works required to the assets to achieve policy compliance and was built into a bottom up workbank. The CP6 workbank consists of structures which were deferred from CP5 and includes the highest risk score items which the route considers would likely lead to a reduction of line speed, RA rating or worse. The plan is robust, identifying assets requiring work and also considers deliverability.
<b>Geotechnical</b>	Funding re-prioritisations during CP5 have seen earthworks

Asset area	Intervention strategy and expected outputs
	<p>interventions from years 3 to 5 deferred into CP6. CP6 affordability and cross-asset prioritisation reviews have resulted in volumes being below STE minimum volumes. Whilst this will lead to a gradual reduction in overall asset condition and increase the risk of asset failure, the route will manage the risk. This risk will be managed by ongoing cyclical examinations, asset team evaluation walkouts, monitoring of a portfolio of slope instrumentation and associated desktop assessments using a variety of data sources. There is also an ongoing CP5 and CP6 programme of borehole inclinometer installation (typically 25No tube installations per year) to allow manual slope monitoring of emerging sites with remote condition monitoring currently installed on three of the highest priority sites.</p> <p>The CP6 workbank has a continued focus on earthworks embankments, earthworks crest and toe drainage and a preference for soil nails for more robust renewals interventions. Funding has also been identified to stabilise the historic embankment instability at Stour Wood in Wrabness and interventions are planned for the highest priority Weather Resilience and Climate Change Action Plan sites.</p>
<b>Buildings</b>	<p>Anglia's approach for buildings is based on a bottom-up review of its assets, used to identify those that do not meet policy targets. The workbank was built using a combination of detailed asset knowledge and includes work items previously deferred during CP5. Key assumptions in the plan are:</p> <ul style="list-style-type: none"> <li>Stations on Arriva Rail London and GTR lines would remain under standard franchise terms during CP6</li> <li>Light Maintenance Depots will remain under standard franchise terms with the TOC's during CP6</li> </ul> <p>It was assumed that Stratford High Level station would transfer to TfL under a full repairing lease in CP5 and as such no funding was allocated. However, it is now confirmed that the station is not transferring. Funding is required for</p>

Asset area	Intervention strategy and expected outputs
	investment proposals on the station. An additional £3.2m of renewals and maintenance funding is required through CP6 now that the station is no longer transferring. There is an aspiration to invest £2.3m in enhancements to the station to further improve the passenger experience
<b>Electrification and fixed plant</b>	CP6 volumes are based on a prioritised but deliverable workbank and are less than those modelled by STE. Due to under delivery of renewals volumes in the last two years of CP5, this work will need to be accommodated within the CP6 workbank. Renewal of the OLE at Stratford is required to improve reliability and remove heat-related risk in CP6. This is the final part of the GE re-wire project which targets the life expired, obsolete 1940s OLE system. It is a complex renewals project requiring significant access. This is currently planned for completion in April 2021 with significant access over Christmas 2020 and Easter 2021.
<b>Telecoms</b>	<p>The themes for telecoms for CP6 will support a safe, high performing, efficient and sustainable railway for Anglia. The key themes are:</p> <ul style="list-style-type: none"> <li>• Transition to a single IP telecommunications network, this will improve availability, performance and exploit new technology and extend the use of assets for passengers</li> <li>• Standardisation of assets and services, this will deliver open architecture which enables secure 'plug and play' of telecoms assets to reduce cost and complexity of assets</li> <li>• Mitigation of the decline of asset sustainability level, this will rectify underinvestment in assets from previous control periods to improve the sustainability of the telecoms assets</li> <li>• Extending the use of telecoms assets and infrastructure, telecoms assets and infrastructure are required to underpin Digital Railway, mobile connectivity on trains and digital inclusion for lineside neighbours</li> </ul>

## 6.4 Cost and volume summary

### 6.4.1 Renewals Costs (post headwinds and efficiencies in cash prices)

Table 7: Renewals Costs

	Unit of Measure	Funded by	CP6 (£m)					CP6 Total
			19/20	20/21	21/22	22/23	23/24	
			(actuals)	(forecast)				
Track	£m	Renewals	282	355	281	196	184	1,298
Signalling (Excluding DR)	£m	Renewals	184	235	216	219	269	1,124
Signalling DR	£m	Renewals	-	8	28	49	12	97
Structures	£m	Renewals	72	114	123	146	122	577
Earthworks	£m	Renewals	22	62	37	33	31	185
Buildings	£m	Renewals	61	63	66	51	35	277
Electrification & Fixed Plant	£m	Renewals	73	91	124	92	80	460
Drainage & off track	£m	Renewals	37	64	53	46	40	239
Telecoms	£m	Renewals	8	11	3	16	19	57
Other Renewals (Region Only)	£m	Renewals	2	32	64	44	39	182
Other Renewals (Functions)	£m	Renewals	1	6	13	9	6	36
Total Renewals	£m		744	1,042	1,008	902	837	4,533

## 6.4.2 Key Volumes

Table 8: Key Volumes

Asset Group	Funded by	CP6					CP6 Total
		19/20	20/21	21/22	22/23	23/24	
E&FP - Con Rail	Renewals	-	-	-	-	-	-
E&FP - OLE	Renewals	151	(12)	65	47	53	304
Earthworks	Renewals	705	1,315	1,165	629	877	4,691
Signalling	Renewals	165	162	409	342	780	1,857
Structures - Bridges	Renewals	15,121	19,026	23,085	19,566	29,513	106,311
Track - PL	Renewals	368	434	363	308	390	1,862
Track - S&C	Renewals	204	307	341	234	180	1,266

## 6.5 Sustainable Development strategy

Across the N&E, EM, EC and Anglia routes there is a shared understanding of the need to link the business strategy to the wider needs of society, to support economic growth and achieve social and environmental benefits. The following sustainability initiatives have been developed to align with the Network Rail Responsible Railway Plan and with the Environment and Social Performance Policy. This will demonstrate each route's commitment to maintaining an environmental system that follows the principles of ISO 14001, and an energy management system which is in line with ISO 50001. The Eastern Region will develop actions that will focus on Environmental Management, Energy and Carbon Reduction, Weather Resilience and Climate Change, and Social Performance. These actions will be supported by focused leadership training, competence development, and awareness campaigns.

The core priorities for the routes across the remainder of CP6 and beyond are:

- **Environmental Management:** Environment Management will form

part of an Integrated Management System (IMS) compliant to ISO14001 standards and will introduce changes in behaviour, procurement processes and lineside activities to reduce the environmental impact of the organisation.

- **Energy and Carbon Reduction:** The Region remains committed to a 25 % reduction in carbon emissions by the end of CP6 and an 18 % reduction in energy usage normalised against CP5 exit. Targeted actions such as procurement of green energy, considering whole life costs as part of our design and procurement process will take place as well as a reduction of energy consumption through upgraded technologies to improve energy management.
- **Weather Resilience and Climate Change:** The weather resilience and climate change adaptation action plan will include a drainage management strategy which has an increased focus on detailed inspection, cyclical jetting and increased volume of refurbishment and renewal. A proactive regime of tree felling and vegetation management focused on high risk trees will occur as well as improvements in weather monitoring and understanding of asset conditions through enhanced risk assessment and remote condition monitoring.
- **Social Performance:** Commitment to include social performance management in the IMS to improve reputation, manage our impact on lineside neighbours, maximising opportunities for socio-economic growth and investment in local communities through Network Rail's employee volunteering programme. Social value will also be added by working better with customer stakeholders through better coordination and planning of disruptive engineering works and working collaboratively with other agencies to best preserve our heritage, environment and ecology.
- **Biodiversity:** Production of a baseline to quantify biodiversity on the infrastructure and creation of a regional plan from which habitat management plans will be produced to help us achieve our target of no net loss by 2024.
- **Air Quality:** Undertaking a programme of monitoring for air quality at managed stations, at risk worksites and depots to quantify and manage risks. Working in partnership with the wider industry to

reduce the number of diesel trains and promotion of clean air initiatives.

### 6.6 Specific Sustainability Targeted Investment

We remain committed to responding to the challenges of climate change to improve long-term asset resilience and sustainability, specifically for N&E, EM and EC the following resilience schemes which will be prioritised in CP6 are summarised in the table below.

**Table 9 Weather resilience scheme in core plan**

Weather resilience scheme included in core plan	
Scheme	£m (18/19 prices, pre-efficient)
• 40 % embankment renew and refurbishment schemes will include an element of weather resilience work.	£13.5m
• 75 % of soil and rock cutting renew and refurbishment schemes will include an element of weather resilience work.	£10.8m
• Scour schemes on Underline Bridges which carry high criticality routes over watercourses	£25.75m

Separately, the Anglia route has identified areas for specific sustainability targeted investment. A key constraint has been deliverability due to the availability of track access which we will address using our Access Strategy for Anglia set out in section 6.10.2.

### 6.7 Technology and Innovation Strategy

Technology is being developed and deployed at product and system levels under Network Rail's centrally funded R&D Portfolio. The Research, Development and Innovation (RD&I) strategy builds Network Rail's capability to deploy technology to our network. Summarised under the

July 2020 Short Form Strategy for RD&I, it draws on industry and international collaboration and is aligned to the industry's Rail Technical Strategy, refreshed in October 2020.

In CP5, developments on the N&E, EM and EC routes included the roll out of a tunnel cleaning machine, widespread and early adoption of PLPR and pantograph cameras and being the trial route for the initial planning and delivering safe standards. This approach has continued in CP6 across all routes, for example by adopting rail milling, and using drones more widely to inform asset knowledge on items such as building roofs.

We are strongly engaged with pulling through first in class deployments of technology to improve the services we deliver for our customers and the value we offer to our funders.

Alongside working with the Intelligent Infrastructure team to implement monitoring solutions, we are supporting the demonstration of future monitoring solutions such as Trackwater to better understand and manage the condition of drainage.

We are the lead region working with the Technical Authority to develop and first deploy safety and efficiency improvements at the many level crossings across the region. From recently completed means to improve level crossing gates to anticipated completion of a solution to detect obstructions on the line in 2022.

We are at the forefront of the transition to moving block signalling, implementing the first mainline application where the safe separation of trains will fully switch to the European Train Control System (ETCS) and lineside signals will be removed. Reducing whole life costs as well as improving capacity and performance.

This implementation requires a major cross-industry collaboration and is a large and critical part of the learning necessary to deploy future communication and train control systems more widely across the network.

We have accelerated innovation, setting challenges and working closely with the R&D team to move from idea to first deployment quickly. Early

successes have been: the development of a passenger assistance app to pre-book assistance, initially at Liverpool Street station; and a tool to make overhead power line monitoring more efficient.

We are building on this success, enabling us to achieve more value through innovation in CP6 as well as longer-term technology development. Working with the central R&D team to identify opportunities for collaborative funding to benefit our customers and create opportunities for suppliers to benefit the economy, create jobs and build our industrial strength.

### 6.7.1 Performance Innovation Fund

The Office of Road Rail (ORR) determined that a Performance Innovation Fund of up to £10m to be created launched by Network Rail for access by Routes during CP6. The purpose of this is to support innovative proposals to improve passenger and freight performance, with funding to go towards testing and implementation of these new ideas.

To identify potential proposals to put forward for consideration by the Centre to receive funding under from this Performance Innovation Fund, the Eastern is leveraging its investment panel process. Innovation Business Cases are being assessed by the investment panel based on points such as the proposed cost, efficiencies offered and deliverability of the proposal.

The Eastern Region plans to use the fund for specific schemes that can help deliver performance improvement. Schemes with industry benefit are also being prioritised. One initiative within Anglia has included using new tools to display datasets in a systematic approach via interaction using Microsoft Power BI as well as taking advantage of tools such as Cosmo and Quartz to review in real time, worst performing trains, dwell times, and the impact of sub-threshold delay.

### 6.8 Asset management capability

Excellence in Asset management requires that we align decision making in our planning and delivery of works to provide infrastructure that

supports the delivery of our corporate objectives. Realising this goal in a whole life cycle cost efficient way will require improvement in our people, process, tools, and information capabilities to get better every day and to embrace the opportunity created by new technology.

We reviewed our processes and arrangements and compared them with the international asset management standard ISO 55001 in February 2019, identifying where we had gaps in our methodology, with the aim of approximating to ISO 55001 compliance requirements.

As a result of the gap analysis, key strategic workstreams were identified to improve the Engineering and Asset Management (E&AM) processes, capability and tools to the level required to support it in delivering its CP6 RSP commitments, wider PPF transformation programme aspirations, longer term strategy to meet its “to be” vision, and approximating to ISO 55001 compliance requirements. In its current shape, these strategic workstreams are as follows:

- **Governance:** setting effective governance, accountabilities and business review meetings in the Eastern Region to steer E&AM improvement workstreams.
- **Management System:** setting an effective management system for E&AM function in the Eastern Region, documenting ways of working (governance, business review / governance meetings, change control, assurance and measuring success) against core functional processes (strategy and planning, requirements specification, infrastructure management and asset protection).
- **Assurance:** capturing and documenting the ‘as is’ scenario, and defining and establishing the ‘to be’ scenario for level 1-3 Assurance activities associated to E&AM function in the Eastern Region.
- **KPI Dashboards and Reporting:** developing a common approach for management information and reporting processes associated to risk management across E&AM.

- **Capable People:** establishing a capability management and reporting process to enable effective management of competence of key safety roles within E&AM function in the Eastern Region.
- **RAMPs:** developing and deploying an integrated RAMP tool to improve the consistency, visibility, efficiency and effectiveness of Route Asset Management Planning and Delivery processes.
- **Portfolio Optimisation:** developing and implementing a Portfolio Optimisation tool to optimise our capital investments at portfolio level, producing a more realistically deliverable plan, with the aim of optimising outcomes achievement.

This strategy will support our target of reducing the number of service affecting failures and support efficient delivery through more stable plans, improve competency levels against our specified requirements, maintain our data quality at grade A2 and build in continuous improvement from our governance and assurance activity. Ultimately this will drive down whole life cycle costs of managing our infrastructure.

### 6.9 Maintenance Strategy

#### 6.9.1 North & East, East Midlands and East Coast

The maintenance strategy for N&E, EM and EC will deliver two core initiatives to significantly improve delivery of maintenance on these Routes in CP6:

- Safe and Effective Working
- Extending the use of Remote Condition Monitoring (RCM) and other Intelligent Infrastructure initiatives

##### 6.9.1.1 'Safe & Effective Working' (SEW)

#### Safe and Effective working

SEW has already been implemented in certain parts of the East Coast Route and has led to decreases in backlog and increased work completed on time. SEW incorporates many of the planning initiatives under the Intelligent Infrastructure programme, helping us plan

maintenance work more effectively around available access windows. This will be rolled out across the remainder of the Route and is due to be completed by the end of Year 2 of CP6, and will comprise the following elements:

**Peterborough South Permanent Way Team adopted SEW in July 2018.** Since having adopted the Safe and Effective working program, Peterborough South Pway has reported the following results:

- GREEN ZONE ACCESS UP FROM 30% TO 91%
  - RIGHT TIME DELIVERY UP FROM 30% TO 84%
  - NON –TIME ON TOOLS HOURS DOWN 40%
  - WORKS ORDER REPRIORITISATIONS DOWN BY 70%
  - BACKLOG – ZERO
- **Stable, Planned cyclical Maintenance Activity** is a core element of this initiative, which will move as much maintenance work as we can into the available possession access. This will reduce the level of Red Zone working and the risk of work being cancelled or not completed, improving overall productivity
  - **Smarter Rostering** – We will design a roster that fits the Access opportunities that exist, thereby minimising late applications for access and failed worksites that have historically driven up premium hours and impacted other planned work.
  - **Professional Logistics** – Improved logistics will allow us to deliver materials and plant to site in advance of the work taking place with waste carried away once jobs are complete. This will replace a more ad-hoc approach of our skilled maintenance teams transporting materials and waste themselves, which can lead to workplace injuries and inefficient fleet usage
  - **Improved Worksite Supervision** – More Lean supervision and performance management through the introduction of a production management approach, reducing the risk of unacceptable standards of work and productivity
  - **Improved Access Points** – we will upgrade our access points to include additional facilities and safety features depending upon the

type of access that is required (see section 6.10).

- **Structural Review** – the implications of the SEW Stable Maintenance Plan will trigger an examination of whether we have the right resources in the right place to deliver both the planned and unplanned maintenance. It will consider the changes in traffic growth, the signal box migrations and historical fault data to understand if we also have optimised our Response resources and competencies to meet the demands of the timetable. This review will also encompass the support teams.

### 6.9.1.2 Extending the use of Intelligent Infrastructure (II) including RCM

#### Intelligent Infrastructure

In CP5 the Route has benefitted from the fitment of a large amount of Remote Condition Monitoring (RCM) equipment to points, track circuits and a number of other different asset types. The number of Service Affecting Failures has reduced because we have improved our maintenance as we learn from the information it gives us.

During CP6 we are fitting more points and track circuits with RCM technology. We have already rolled out Plain Line Pattern Recognition (PLPR) across the Region, with further live mileage to be implemented. We continue to look for opportunities to deploy other II Capabilities such as Location Earth Busbar Monitoring, Level Crossing RCM and 'Pan cams'.

We are maximising the opportunities to improve our usage of this equipment through 'Predict and prevent' and to embrace other new technology to improve efficiency during CP6. This will be in line with the monitoring and analytics initiatives of the Intelligent Infrastructure programme.

The 'Predict and Prevent' programme is made up of three work-streams:

- **The development of a Delivery Unit 'dashboard'** to centralise all the information from our RCM equipment in one place. The ability to provide a 'helicopter' view of the Delivery Unit on one screen, with a traffic light health check of our all our RCM fitted assets across a DU.

- **The rollout of further RCM fitment to all our 'Critical' assets**, and to use existing RCM equipment for other previously unmonitored high risk assets e.g. relay room temperature monitoring.
- **Training & Support** – Larger volumes of asset data from new technology will require competent teams who are able to process, manage and interpret it. In CP6 we will use our own specialist staff to deliver training on site where teams can see how new technology works in context, giving them a better understanding of how to optimise its use. In CP6 we will also ensure that our front line staff receive the relevant training needed to take advantage of these new technologies will help us reduce the frequency of patrols, the need regularly inspect certain types of equipment and perform certain types of testing.

By extending the use and impact of Intelligent Infrastructure in CP6 we will restructure our maintenance regime from a preventative one to a more risk-based approach. This will help us eliminate non-essential maintenance activities and deliver essential activities at a frequency that is more appropriate to asset condition.

### 6.9.2 Anglia

The route maintenance strategy for CP6 and beyond takes a robust, bottom-up approach to understand core requirements in respect of meeting customers' needs and asset performance KPIs. This accounts for renewals volumes delivery during CP5 and the full renewals workbank for CP6, as well as passenger and freight service level changes and tonnage impact.

The strategy incorporates a number of factors including:

- Delivery of **Plain Line Pattern Recognition** (PLPR) and the associated reduction in the requirement for manual visual track asset inspections. This will deliver some benefit in the final year of CP5 and full benefits through CP6, including Risk Based approaches to delivering routine maintenance, with resources redeployed across the route to maximise productivity

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- **Eddy current technology** providing train borne Rolling Contact Fatigue detection allowing significantly improved track asset knowledge than previously available and replacing the requirements for manual visual inspection. The benefits of this project are expected in year 1 of CP6
- Once the **automated corporate rostering** tool is linked to payroll, the route anticipates delivery of efficiencies in CP6 based on maximising rosters to terms and conditions, and reduced administration in completing manual time sheets
- The **contracting mechanism** for Buildings and Civils maintenance and Civil Examination Framework Agreement (CEFA) works will be reviewed for CP6 with the aim of delivering greater productivity and efficiency. The route will also take a view as to whether efficiency can be generated by taking some of these services in house
- The use of **Intelligent Infrastructure** tools to create a 'predict and prevent' approach to maintenance is essential to delivering a high performing railway. Adoption of the range of such tools currently available is already advanced on Anglia, and this strength will continue to be built on into CP6 through the Intelligent Infrastructure programme. The existing Intelligent Infrastructure equipment will be extended to cover a higher proportion of the key assets in use enabling more real-time monitoring from the Romford Route Operating Centre (ROC) preventing failures from affecting the train service

We are undertaking a review of our maintenance strategy on the Anglia route to ensure that our resources and depots are in the optimal locations to respond to incidents and to effectively carry out maintenance. The maintenance organisation will help to reduce the volume and impact of incidents through better use of technology and tools to predict and prevent asset failure, as well as undertaking as much work as possible through fixed access windows.

The competence and capability of maintenance staff is a key driver of both quality of work and the safety and performance of the infrastructure assets. Anglia recognises this fact and will include in the CP6 plan the requirement to improve both the skill level of the staff, by

training and professional development, and the capability, by cultural training to create a professional and empowered workforce.

### 6.10 Access

#### 6.10.1 North & East, East Midlands and East Coast

##### Efficient and optimal access planning

We will work collaboratively with our customers, delivery functions, train and freight operating colleagues to maximise the efficient use of access with minimum disruption to the rail industry's customers and end users.

For the remainder of CP6 we will seek to adopt a different approach which will give full visibility of planned Maintenance, Renewal and Enhancement access through CP6 years 2-5, as opposed to the established process of year on year requirements.

The process will involve all relevant stakeholders within the Rail Industry, with Operators playing a pivotal role agreeing the principles of the Control Period's strategic track access.

##### 6.10.1.1 Maintenance access will provide the baseline

Our Safe and Effective Working programme will be a key pillar of our CP6 plan. This involves the detailed planning of access across all maintenance disciplines to maximise the use of the 'no trains' period. A benefit of this approach is to reduce the level of red-zone working for routine maintenance through improved integration and planning of booked access windows. The implementation of this strategy will maximise existing Rules of the Route access opportunities to deliver maintenance activities, with the result being maintenance that is less frequent but more effective and safer.

Our maintenance strategy will provide the baseline plan which will then have our Renewal and Enhancement project portfolios integrated and managed into and around the base line plan. Given the criticality and number of projects occurring on the ECML in CP6, we also plan to

establish a specific ECML South area access strategy to deliver several major projects and key renewal programmes.

### 6.10.1.2 Agreeing high Output track renewal access is critical

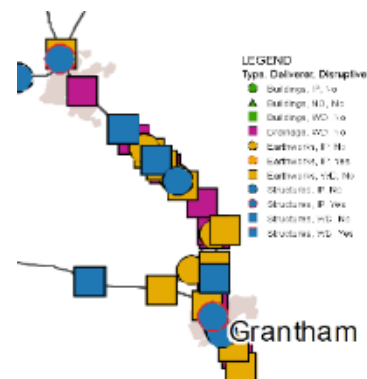
High Output track renewal is a key pillar of our track asset strategy in CP6, particularly on areas of high criticality on the MML and ECML. We are working with our TOC customers to agree the access windows required to deliver the works efficiently, and how we will manage risks around hand back time should the system incur a serious failure, where the performance impact could be significant.

Our customers recognise the importance of delivering this work and have committed to working collaboratively to approach the access required from an industry perspective.

### 6.10.1.3 Access through early planning and technology

Whilst working in partnership with our customers will be the cornerstone of our Access Strategy in CP6, we will also follow several other principles to ensure productive conversations with customers can take place, these include:

- **Earlier engagement with Route Engineers (previously RAMs):** Confirming workbanks earlier to allow better aligning of projects across asset disciplines and gain economies in areas e.g. shared site compound areas
- **New technology:** Using mapping software in the figure below and sharing details of workbanks across teams to allow for better alignment of works. Progress has been made in consolidating the workbanks across different asset disciplines as a key enabler to provide visibility of the workbank. Initial visualisation prototypes have been developed to visualise the integrated workbank, with the aim of informing decision making and realise trade-offs.



renewal, enhancement and Third/Other Party works. There continues to be a focus on the Great Eastern Main Line (GEM), with significant work also planned on the West Anglia Main Line (WAML), Thameside route, and the East Suffolk Line. The route will continue to negotiate and evolve the access opportunities with the various Operators affected in an open and transparent way to comply with the Network Code, supported by a combination of monthly stakeholder meetings and ad-hoc area- or work-specific meetings. The Route Planning Team, supported by the IAP team, is key to this process to optimise access requirements between the different delivery organisations.

For CP6 the delivery plan will require a significant volume of disruptive access in locations which have already endured significant disruption during CP5. In such instances the approach will be as follows:

- 1 A continuation of the 'Controlling Mind' principle
- 2 Obtain early agreements on access with TOCs and FOCs
- 3 Creating multi-disciplinary access strategies in key locations which will allow working time to be maximised while reducing the overheads associated with multiple possessions
- 4 Ensure that as many possessions as possible are multi-discipline

**Alignment with Enhancements:** Coordinating with enhancements programmes occurring in CP6 such as Thameslink, TRU, King's Cross remodelling and Huntingdon to optimise their access windows.

### 6.10.2 Anglia

## Eastern Route Strategic Plan

There will also be an increased use of blockades where there is stakeholder support for this approach.

There are a number of both company wide and Anglia route initiatives underway that we are bringing together to review current access planning principals, constraints and internal processes to deliver a fully integrated, efficient CP6 access plan. Some of the key objectives are as follows:

- 1 To continue to work in a meaningful manner with our train operators and System Operator, examining alternative options to move away from a weekend and midweek cyclical plan in places where they may no longer be fit for purpose
- 2 To resolve the problem of insufficient access at key locations in Anglia by developing a bespoke midweek and weekend cyclical plan which will be beneficial
- 3 Development of a fully de-conflicted CP6 plan by working with long term planning teams in Anglia and other routes

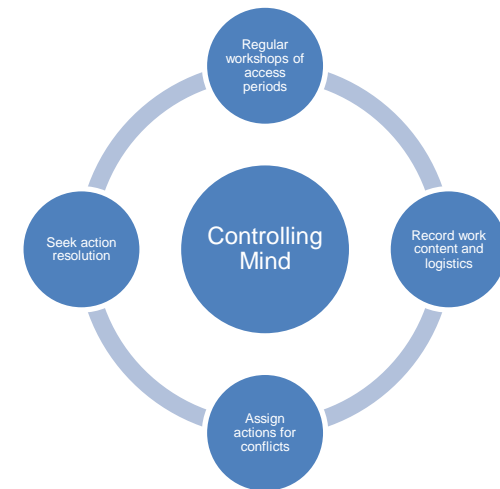
Delivery of a weekend cyclical access plan across each Delivery Unit to provide a more robust and flexible plan, that can be integrated with enhancement and renewals possessions

### Efficient and optimal access planning

Having an early understanding of the volume of work that can be delivered within the available access, and the need to integrate the work from different delivery organisations in order to maximise the access opportunities available, key lessons on the deliverability of works within CP5 have been learned. This has resulted in the 'Controlling Mind' principle and the creation of the routes Integrated Access Planning (IAP) team. In developing the CP6 plan the route has continued with this 'Controlling Mind' principle and has used the renewals workbanks to identify access requirements early.

The IAP team has developed a set of working assumptions which identify the access required for different work types and, in conjunction with train operators, has established a set of planning rules and agreements which define what disruptive access is normally acceptable. The IAP team has been able to develop an initial CP6 possession plan that:

- Maximises the volume of work delivered within the possessions
- Ensures that different work types are compatible
- Establishes outline haulage requirements including the availability



**Figure 24: A "Controlling Mind" in Anglia is helping create better integration to optimise Access**

## Eastern Route Strategic Plan

of routes to and from site

- Identifies the requirements for key resources
- Understands alignment to rules and agreements for disruptive access availability
- Minimises conflict with work on other routes based upon ongoing engagement

These plans are being developed with the support of the route Planning Team, TOCs and FOCs, and have been shared with other stakeholders as part of the early consultation process. Operators are also involved to explore options for different methods of working, including potential blockades.

From this, a detailed week by week plan across CP6 has been developed identifying suitable access periods for each piece of renewals work due to be undertaken on the route. This has enabled the route to further visualise the work and ensure that critical resource, access alignment and assumptions have been validated.

This work has been summarised into a CP6 'Strategic Engineering Access Statement' which is currently in production and will have senior level support from the TOCs and FOCs. This will provide a high level of confidence in the deliverability of the plan prior to formal engineering access negotiation taking place.

### 6.11 Supply chain, Works Delivery and the Capital Delivery Directorate

As a result of historic reviews into Network Rail's ability to deliver projects

on time and on budget, Network Rail is changing its approach to delivering large capital projects including renewals and enhancements as part of Devolution.

Previously, a significant portion of LNE & EM and Anglia's capital portfolio was delivered by a range of parties within Network Rail's Infrastructure Projects (IP) directorate. These were managed under a variety of business units. For Eastern this included IP SNE, IP Central and Southern business units, along with IP Track and IP Signalling business units.

#### Efficient and effective delivery

Under, PPF, the new Eastern Region Capital Delivery Directorate (CDD) will devolve these parts of IP and bring these together to form a single organisation within the Region under a Capital Delivery Director.

The CDD will sit on the Eastern Region executive alongside the Route Directors and will have aligned, customer and passenger facing objectives. The CDD will be accountable for work allocation between their delivery units, enabling them to manage the whole capital portfolio in the most efficient and effective way for the Region.

The CDD will be supported in this activity by a Portfolio Management Office which will provide the right management information to support decisions on how best to utilise the capacity of the Capital Delivery function over a 1-3 year planning horizon.

A new Delivery Partner model is also being developed which should improve the efficiency and effectiveness of the capital delivery function by allowing for a more collaborative and strategic approach to the manner in which work is assigned between IP and Works Delivery. To make the best use of its smaller and more efficient teams, Works Delivery will continue to work on low-medium value jobs, which are low complexity and low risk.

## 7 People

### 7.1 Context

Delivering the Eastern Region CP6 Plan depends on us having a high quality, appropriately trained and diverse workforce. This means not only ensuring people are growing in their existing roles, but that our Route's attract and retain the right people as well as support diversity and inclusion initiatives.

Tranche 3 PPF re-organisation within Eastern went live on 12th October, following successful IR and Safety consultation with the trade unions. This included consultation of moved within the Region alongside transfers into the Region from other functions including Network Services, Technical Authority, System Operator and Property.

### 7.2 Putting our People first

This section looks at the initiatives that the Eastern Region are undertaking to deliver our strategic business plan. The focus is to attract, recruit, develop and retain the best people. To do this we will listen to our employees to ensure that our people are motivated, supported, rewarded, and valued in an environment that is both professional and employee-focussed.

The Eastern Region people plan has six strategic themes, enabling us to truly put passengers first through the delivery of our strategic business plan. These are:

- **Diversity & Inclusion:** Creating an inclusive working environment that is reflective of the communities we serve and where our people are proud to work.
- **Workforce Planning:** Having the right number of people, with the skills that we need, when we need them to deliver our strategic plans.
- **Talent & Succession:** Supporting and developing our people through open and honest conversations.

- **Industrial Relations:** Enabling change through constructive engagement with our Trade Union colleagues.
- **Recruitment:** Becoming an inclusive company that attracts great people through a candidate focussed recruitment process.
- **Professionalism:** Developing a professional, credible and high performing HR team who are a trusted partner.

### 7.3 What we will deliver

Having agreed the six key strategic themes across the Eastern Region, we will create Route and functional plans to achieve the outcomes across the variety of businesses within the Region.

The working environment has changed for us all as a result of the COVID-19 pandemic. The 'Agile Working Principles' have been developed to support this new approach and we will be continuing to embed agility and flexibility into everything we do to support our people in a way that works for them.

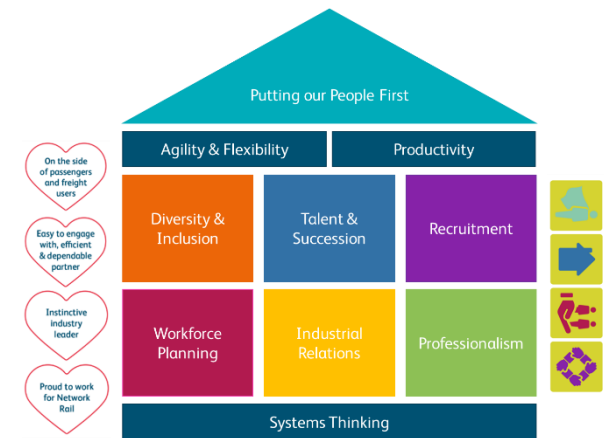


Figure 25 Eastern Region People Strategy

Striving for improvements to the service that we provide, we will engage with national systems interventions and lead regional continuous improvement projects to deliver for our customers. We will also undertake a productivity review of across the Region to become more effective and deliver more for our passengers with the resources available.

## Eastern Route Strategic Plan

Through all that we do, our vision and values will be core to our success in truly putting our people first.

The key deliverables for each of the six strategic themes can be seen below.

### 7.3.1 Diversity & Inclusion

- Achieve our Diversity targets for Women (26%) and BAME (13%) employees by 2024
- Create a culture where people feel proud to bring their whole self to work
- Educate and upskill our managers to improve engagement and drive inclusive leadership
- Link more closely to our supply chain and TOC/FOC partners to lead sustainable, industry change
- Engage with our local communities to understand the needs and wants of our passengers.

### 7.3.2 Workforce Planning

- Have workforce plans and appropriate actions to mitigate workforce risk in the short, medium and long-term planning.
- Have a clear view of demographics and turnover forecasts to inform appropriate local level tactical workforce action plans.
- Have a suite of scenarios for long term macro-level factors impacting our workforce, e.g. Digital Rail, Remote Condition Monitoring, Cyber Security, passenger demand.
- Understand the impact to enable us to make assumptions.
- Sponsor the national approach to strategic workforce planning, we will be working with the systems intervention project team to develop a more detailed strategic plan.

### 7.3.3 Talent & Succession

- Build capability within and source from outside, when needed, to deliver our strategy.
- Support career self-ownership.
- Move talent around the business as part of career development and where possible we move work to where talent is.
- Have open and honest conversations with individuals about talent outcomes to create clear personal development plans.
- Talent is shared for the greater good of the business and to benefit the industry.
- Eastern Region Exec will hold quarterly talent reviews focussing on individual career outcomes and development plans which will be tracked.
- Alignment to the national talent and succession strategy, including identification of Eastern Region employees into business-critical roles.

### 7.3.4 Industrial Relations

- Alignment to new collective bargaining agreement, to identify and resolve issues early and prevent the requirement for escalation.
- Deepen the professionalism of the relationship with the Trade Unions through initiatives such as joint working groups.
- Upskilling / Continuous improvement.
- Closer alignment with the national IR team sharing early insight into matters which have region and route implications.
- Develop strategies to implement changes through constructive engagement, e.g. remote condition monitoring.

### 7.3.5 Recruitment

- Local external awareness campaigns to make Network Rail as an employer choice across the Eastern Region geography.

## Eastern Route Strategic Plan

- Fully embed the five diversity and inclusion recruitment principles.
- Implement more targeted attraction to ensure our managers receive high quality candidates.
- Work closely with Centres of Excellence, D&I and SWP leads to enable the business to hire the best employees.
- Identifying best routes to market, aligned with D&I principles to maximise attraction. Clearer resource planning – seamless process. Volume recruitment – develop and embed initiative (systems intervention), relationship with NRSS.
- Enhance the onboarding process across the Region to provide an excellent candidate experience.

### 7.3.6 Professionalism

We have identified and implemented our target operating model for HR across Eastern Region and recruited strong Heads of HR across each business area. This model will enable us to;

- Deliver clarity on the HR priorities across Eastern, including the structure and delivery of HR activity and the relationship with the Network Rail HR profession.
- Develop professionalism through engagement with CIPD and the wider Network Rail HR profession to provide an excellent HR service to our Routes and Functions.
- HR service transformation across Eastern through the outputs of the Employee Relations systems intervention and embedding HR support in the right places to support the needs of our clients, e.g. through the introduction of dedicated HR support within our delivery units.
- Develop HR structure and priorities across Eastern to enable and drive business performance improvements across the Region.

## 7.4 Mental Health & Wellbeing Strategy

Our vision is to ensure that the Eastern Region provides a safe, healthy and fulfilling work environment to all colleagues.

As a business, Network Rail targets a reduction the amount of stated work-related mental health issues by 25 % by the end of CP6.

In order to achieve this reduction, we will:

- Raise mental health awareness through communications and campaigns, aligned with Public Health England and national campaigns such as Mental Health Awareness Day and Suicide Awareness Day.
- Increase the opportunity for peer to peer support for all our colleagues to enhance wellbeing, build confidence and provide support when needed.
- To have 10 % of our colleagues able to provide peer to peer support by the end of CP6.
- Train 10 % of line managers to enable them to support colleagues with reduced mental wellbeing. Providing specific training interventions and multiple delivery options for routes and functions.
- Set up a Regional Mental Wellbeing Forum.

## 7.5 Employee Engagement

Using the bi-annual, nationally agreed Your Voice engagement survey framework as a baseline, we will create Route and Functional level action plans to drive higher engagement levels across the Region. Through regular pulse surveys we will monitor the success of these actions and build on them accordingly.

### 7.5.1 People's Recognition

Each Route and Function across Eastern is developing their own dedicated plans to recognise their people. These plans include activities

## Eastern Route Strategic Plan

such as a regular newsletter section in East Coast, a regular 'celebrating success' item on East Midlands Exec meetings and the annual ACE awards held within Anglia.

### 7.6 Headcount

Routes and functions with the Eastern Region are taking steps to achieve further efficiencies within the workforce by embracing and exploiting the advantages that new technologies can offer. Some of these examples are captured below.

#### 7.6.1 Insourcing Plans

Through the employee relations transformation workstream, we have brought workload from HR Direct into the Route and Functional HR teams and are embedding this as the new operating model.

Following a recent trial in North & East Route, a timely and aligned recruitment process has been developed for Signallers, with the additional hires in North & East being brought in to reduce overtime and fatigue. We will also be engaging with other national systems interventions to enable robust workforce planning and to improve the

service that we provide.

We will be undertaking targeted recruitment to reduce dependency on contractors in track and welding and grinding disciplines.

#### 7.6.2 Exploiting Technology Opportunities

Across the Region, there are re-signalling schemes underway, including Kings Cross, Durham Coast and Cambridge, each reducing signaller headcount through introduction of technology.

Through effective workforce planning, we will embed technology into our resourcing plans, allowing for appropriate training and implementation strategies for technology such as remote condition monitoring.

## 8 Efficiency

### 8.1 Context

Measurement of Headwinds and Efficiencies (H&Es) allows the relationship between Network Rail's expenditure, its core business activities and its outputs to be monitored on a like-for-like basis over time. They have therefore formed a central part of the ORR's Periodic Review and Determination process<sup>1</sup>. In CP6 Network Rail as an organisation has been given stringent targets for achieving these. This section sets out the process that has been used to develop and quantify H&Es in Eastern Region's constituent Routes. Fishbone updates are currently being managed through Central Functions.

### 8.2 Overview

Our financial performance so far up-to P06 CP6 Year 2 indicates that we have been delivering our CP6 plan efficiently. The combined Anglia and LNE&EM Route Strategic Plans initially set out efficiency targets of £922m across CP6. Eastern committed to deliver additional £92m efficiencies rising the CP6 target to £1,018m. We are outperforming the original Business plan and so far have delivered £117m in Year 1 and are expected to achieve c.£186m in Year 2 vs a target of £165m.

**Table 10 CP6 Efficiencies Summary**

	CP6					CP6 Total
	19/20 (Actuals £m)	20/21 (Forecast £m)	21/22 (Forecast £m)	22/23 (Forecast £m)	23/24 (Forecast £m)	
CAPEX (Renewals)	106	152	187	198	198	841
OPEX	11	34	45	53	34	177
<b>Totals</b>	<b>117</b>	<b>186</b>	<b>232</b>	<b>251</b>	<b>232</b>	<b>1,018</b>

<sup>1</sup> ORR - Consultation on our approach for assessing Network Rail's efficiency and wider financial performance in CP6 [Link](#)

Most efficiencies within Eastern derive from new commercial frameworks which have been brought into operation in CP6, including a B&C framework to reduce cost of reactive. Within the Signalling portfolio competition brought into the marketplace at some of our mid-tier projects has resulted in efficiencies from better contract rates. Bringing the supply chain into the planning process early through having a stable workbank and early contractor engagement as well as better management of risk pots in projects has also helped us to deliver work more efficiently.

We are serious about providing more efficient delivery throughout the rest of CP6 to secure value for money for the passengers and taxpayers that help fund the railway.

Headwinds in FY21 have increased due to the COVID-19 global pandemic, this is having a significant impact on the Opex headwinds as we put measures in place to protect the safety of our staff and passengers through hand sanitiser, covering sickness and putting procedures in place to adhere to the social distancing rules in our managed stations, this is currently £17.3m, in addition there are £19.7m of headwinds across our Renewals portfolio due to COVID-19 impacts.

### 8.3 Headwinds and Efficiencies development process

#### Robust efficiency targets

Headwinds and Efficiencies were determined across Renewals and Opex and as part of the CP6 Business Planning process were categorised over seven areas:

- **Access** - Those resulting from better co-ordination and planning of Access or making better use of existing possessions
- **Workbank** – Efficiencies resulting from a more stable and mature workbank, with projects at a sufficient level of design maturity

meaning less divergence between forecast and outturn cost.

- **Technology** – Those resulting from deploying new technologies such as Opex efficiencies from PLPR, leading to reductions in planned volumes during the Control Period.
- **Delivery** – Efficiencies arising from more effective contracting strategies and better alignment between RAM teams and deliverers.
- **Design** – Making better use of similar components, similar specification works to reduce design development costs.
- **Commercial** – Making better use of frameworks and optimising procurement strategies.

### 8.3.1 North & East, East Midlands and East Coast

#### 8.3.1.1 Renewals

The following is a summary of the systematic approach that has been undertaken to identify the headwinds and efficiencies that will be realised across each asset class, and how they have been quantified.

In conjunction with the generation of their workbank, each RAM provided an initial description of potential headwinds and efficiencies expected to materialise in CP6 together with a qualification statement setting out why each was expected. At this stage, RAMs were asked to identify **all potential** headwinds and efficiencies, based on emerging trends in CP5, information from deliverers and national working groups.

This initial list of headwinds and efficiencies were compiled and compared across asset classes within the Route, and also with submissions from other routes. This allowed us to judge whether the initial list identified was complete, and helped assess quantification.

Following collation of this list of headwinds and efficiencies, a standard template was issued to RAMs to enable the capture of supporting information that was required to fully evaluate the potential headwinds and efficiencies and to enable them to be calculated.

The standard template used a series of filtering questions which were designed to funnel down into the impacts that each efficiency or headwind would potentially have across the following areas:

- Financial impact (Key KCLs impacted, type of spend, % workbank affected);
- Other cost areas;
- Initial assumptions around CP6 glide path;
- Efficiencies: Inputs and other dependencies;
- Headwinds: Identification of possible mitigations; and
- Likelihood of realisation.

A series of workshops were then held to challenge each RAM on the rationale for including each headwind and efficiency, together with the underlying assumptions provided in the standard templates.

This process resulted in a final set of headwinds and efficiencies, which are as included in our submission, together with a documented audit trail setting out how these were concluded, together with a robust supporting calculation basis.

#### 8.3.1.2 Opex (Maintenance, Operations and Support)

The maintenance volumes submitted in NE, EM and EC CP6 plan has been derived using the Activity Based Planning Tool devised by our central ORBIS team. This has been used to forecast the cost required within each year of CP6 to deliver planned volumes.

These volumes were then priced at standard rates and, along with OTM costs and other costs, are reflected in our Opex submission (see section 7.1). In order to calculate how this will flow through to actual headcount we have applied the following overlays:

- The additional headcount required to cover volumes driven by new core activities such as Signalling Power Supply testing, Vegetation and Drainage
- Estimated efficiency improvements resulting from the above initiatives will mean that non-time on tools is reduced over time,

whilst initiatives such as PLPR and other initiatives included under the Intelligent Infrastructure programme will reduce the volumes of work required as activities become more targeted.

The estimated cost impact of the equivalent reduction in FTE's these efficiencies imply is then calculated and overlaid to estimate Opex efficiencies.

### 8.3.2 Anglia

#### 8.3.2.1 Renewals

A pre-efficient plan costing was built up using a cost model developed by PwC based on delivering CP6 volumes under CP5 behaviours – i.e. no change. We have then developed a post-efficient plan built up using rates and methodologies agreed with deliverers, cognisant of changing business environment (e.g. more difficult access) and ways of working (e.g. access principles agreed before start of CP6, around a fixed workbank). The headwinds and efficiencies are the bridge between the two plans. In developing the efficiency plans the following activities were undertaken in FY19:

- RF4: Education and upskilling on fishbone framework with deliverers.
- RF8: Assigned SROs to initiatives.
- RF11: Pre/post efficiency targets assigned to all projects and documented efficiency action for projects.

These were followed in FY20 with the following:

- RF4: Trackers rolled out across 'guinea pig' schemes and a workshop was held with deliverer finance.
- RF8: Trackers were rolled out across all projects with identified efficiency.
- RF11: Trackers were rolled out across all live projects.

FY21 continues the development journey incorporating prior year improvements and continuous improvement across this area.

#### 8.3.2.2 Opex (Maintenance, Operations and Support)

Similar to N&E, EM and EC, Opex efficiencies have been overlaid onto baseline Opex plan which has been developed using activity based planning tools. To determine Opex Headwinds and Efficiencies at Anglia, High level opex risks and opportunities were developed to cover headwinds (fatigue standard, annual leave pay legislation, Crossrail access) and efficiencies (resignalling projects, access optimisation, local contracting strategy, maintenance strategy).

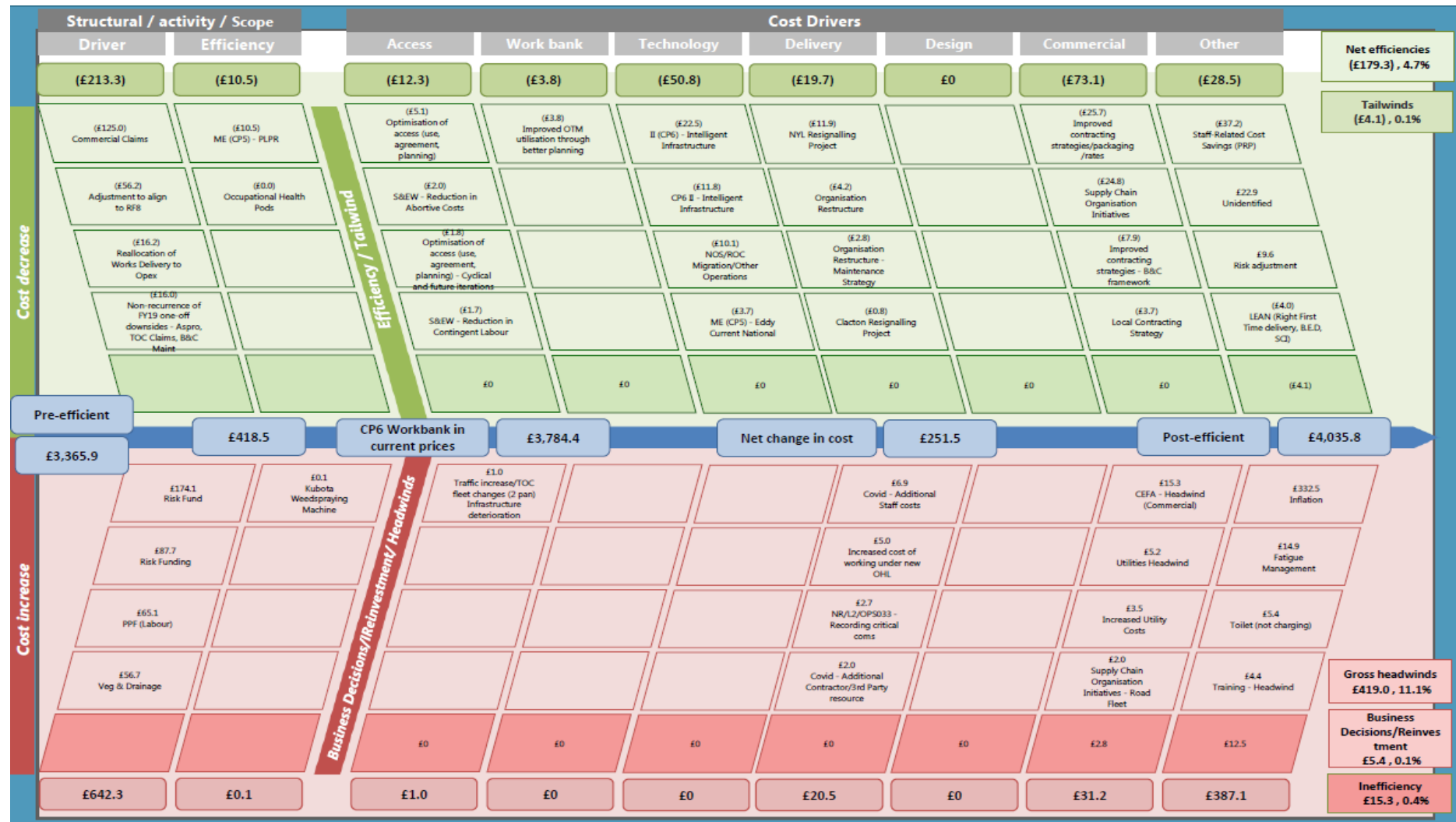
Efficiencies from national programmes were then assessed and included, such as programmes that have been developed and delivered in the back end of CP5 (PLPR, Eddy Current) and new programmes for CP6 (Intelligent Infrastructure, ESD).

**Figure 26: Eastern Capex fishbone as at P10 FY21**



### 8.4.1.2 Opex

Figure 27: Eastern Opex fishbone as at P10 FY21



## 9 Sign-off

**This document and accompanying templates are owned by the Managing Director Region (MD-R).**

**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 MD-R 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 A.

Authorised by:

A handwritten signature in black ink, appearing to be 'Rob MacIntosh', written over a horizontal line.

Rob MacIntosh  
Managing Director, Eastern Region

12 February 2021

A handwritten signature in black ink, appearing to be 'Meliha Duymaz', written in a cursive style.

Meliha Duymaz  
Region Finance Director

12 February 2021

# Appendix

# Appendix A Key assumptions

## A.1 North & East, East Midlands and East Coast

Table 11 Key Eastern Region assumptions and impacts

Ref no.	Topic (e.g. access, deliverability, climate etc.)	Assumption	Areas of spend impacted (e.g. all opex, track renewals, all spend etc.)
N&E, EM AND EC 01	Digital Railway	Funding for Digital Railway is excluded from this Strategic Business Plan, as reflected in cost and volume tables. Enhanced ECML SOBC referred to in this submission. Non Route costs have been budgeted for by DR, including those held by the FNPO, TOCs and other parties outlined in the Digital Railway funding breakdown in the table in Section 6.3 of the N&E, EM and EC RSP.	Signalling renewals
N&E, EM AND EC 02	MML Electrification	The submission now reflects the cancellation of Key Output 2	OPEX E&P
N&E, EM AND EC 03	Delivery	CP6 Plan assumes successful completion of current forecast CP5 exit position for renewals,	All Renewal and Maintenance

Ref no.	Topic (e.g. access, deliverability, climate etc.)	Assumption	Areas of spend impacted (e.g. all opex, track renewals, all spend etc.)
EC 03		enhancement, maintenance delivery and train performance	
N&E, EM AND EC 04	Access	This submission assumes that appropriate access will be secured and optimised in CP6	All Renewal and Maintenance
N&E, EM AND EC 05	Unit Rates	Cost and volumes have been developed using current emerging unit rates which are assumed to be achievable.	All Renewals and Refurbishment
N&E, EM AND EC 06	Deliverability	The supply chain has the capacity to deliver the volume of work that is in the current plan.	All Renewals and Refurbishment
N&E, EM AND EC 07	Weather	This submission assumes that the impact of severe weather events will be in line with that experienced in CP5.	Performance and Reactive Renewals
N&E, EM AND EC 08	Organisational Capability	This submission assumes that the Route attracts and retains the required engineering competence	All Renewal and Maintenance

## Eastern Region Strategic Plan Appendix

Ref no.	Topic (e.g. access, deliverability, climate etc.)	Assumption	Areas of spend impacted (e.g. all opex, track renewals, all spend etc.)
EC 08		to manage and deliver the required outputs.	
N&E, EM AND EC 09	Enhancement Deliverability	It is assumed that the current Tier 1 and Tier 2 CP6 enhancement schemes described in this plan have received committed funding to proceed in CP6 (unless stated otherwise)	All Renewal and Maintenance
N&E, EM AND EC 10	Central Service Provision	Central services will continue to provide the same services as currently such as NMT	All Renewal and Maintenance
N&E, EM AND EC 11	Telecoms	Renewals activities will be undertaken by NRT. The maintenance is owned by the Route as is the subsequent operational activity required.	Signalling and Telecoms Renewal and Maintenance
N&E, EM AND EC 12	Intelligent Infrastructure	The Route supports this programme, although the benefits are currently being fully developed and quantified, many initiatives are considered in the Route's "Safe and Effective" working initiatives.	All Renewal and Maintenance
N&E,	East Coast	The proposed East Coast	All Renewal and

Ref no.	Topic (e.g. access, deliverability, climate etc.)	Assumption	Areas of spend impacted (e.g. all opex, track renewals, all spend etc.)
EM AND EC 13	Partnership (2020)	Partnership has not been considered when developing this plan due to the timing of the announcement and lack of detail on what impact this might have. Performance forecasts referred to in our East Coast supplementary plan (Appendix D) are compared against VTEC's original franchise agreement with the DfT published on 27 November 2014 (Now LNER).	Maintenance

## A.2 Anglia

Table 12 Key Anglia assumptions and impacts

Ref no.	Topic	Assumption	Areas of spend impacted
1	Policy	Engineering Policy does not change and therefore no additional volume will be required	CAPEX and maintenance OPEX
2	Access	Operators do not deviate from agreed CP6 engineering access principles	CAPEX, maintenance OPEX, Enhancements spend
3	Safety	No new safety risk areas materialise outside those already covered in our safety	All areas of spend affecting

## Eastern Region Strategic Plan Appendix

R ef n o.	Topic	Assumption	Areas of spend impacted
		strategy which need additional safety plans creating and delivering	passenger, public and workforce
4	Level Crossings	Risk levels will not substantially change at individual crossings	CAPEX, all OPEX, Enhancements spend
5	Deliverability	Current Enhancement Delivery Plan (EDP) milestones achieved with no further deferral of significant milestones into CP6 putting pressure on availability of key resources including access	CAPEX, Maintenance OPEX, Enhancements spend
6	Sustainability	New rolling stock being introduced does not cause a change to forecasted asset condition	CAPEX, Maintenance OPEX
7	Deliverability	Base access plan assumes that Digital Railway rollout will not require significant access & resources that would adversely impact on the delivery of the CAPEX renewals	CAPEX, Maintenance OPEX
8	Train performance	Forecasted train performance in CP6 aligns with forecast model	OPEX
9	Train performance	CP6 train performance forecasts include Network Rail modelled risks and benefits.	OPEX
10	Locally Driven	Congestion improvement works required at Liverpool Street are not completed until CP7	Passenger satisfaction (Liverpool St)

R ef n o.	Topic	Assumption	Areas of spend impacted
	Customer Measures		
11	Enhancements	Crossrail phases are achieved to the revised plan	CAPEX and OPEX
12	Finance	Industrial Relations strategy changes to allow redundancies	CAPEX and OPEX

## Appendix B Significant Changes

Description of change (Include any links to additional details)	East Coast and North East Boundary Changes as part of Putting Passengers First Initiative		
Reason for change	To align the maintenance boundaries in the York and Newcastle areas with the new route boundaries	Mitigations	Transition plan in place with hosting arrangements until the consulted organization is filled.
Timescales	Consulted and boundary changes implemented	Benefits / Drawbacks / Risks	Provides a direct line of accountability and responsibility from maintaining section to the owning route director.
Impact / Deliverability	Significant change to the maintenance organization. 2 new maintenance areas introduced at Middlesbrough (N&E) Darlington (East Coast)		

- Key financial changes are included within the Financial Tracker Template.
- Other changes include scorecards section and other timetable changes reflected in the Train Service Delivery section.
- Property within figures devolved to the Region.

## Appendix C Income breakdown

£m in cash prices	19/20	20/21	21/22	22/23	23/24	CP6
Variable charges (VUC, EAUC)	-85	-66	-90	-97	-96	-434
Open Access	-13	-11	-12	-13	-13	-62
Stations LTC	-13	-13	-14	-14	-15	-70
EC4T	0	0	0	0	0	0
Schedule 4 ACS	-85	-51	-54	-52	-49	-291
FTAC	-217	-161	-165	-179	-198	-919
Network Grant (SOMR)	0	0	0	0	0	0
Income from FNPO	-22	-20	-24	-28	-32	-127
Other single till income	-1	-1	-1	-1	-1	-5
<b>Total Turnover within scope of PR18</b>	<b>-436</b>	<b>-322</b>	<b>-359</b>	<b>-385</b>	<b>-405</b>	<b>-1907</b>

## Appendix D Glossary of Terms

<b>ABP</b>	Activity Based Planning	<b>CRM-P</b>	Consistent Route Measure – Performance	<b>FTN</b>	Fixed Telecoms Network	<b>NPIF</b>	National Productivity Investment Fund
<b>ADB</b>	Assurable Database	<b>CSI</b>	Composite Sustainability Index	<b>FWI</b>	Fatality Weighted Injuries	<b>NRPS</b>	National Rail Passenger Survey
<b>AFC</b>	Anticipated Final Cost	<b>DC</b>	Direct Current	<b>GRIP</b>	Governance of Railway Investment Projects	<b>NRT</b>	Network Rail Telecoms
<b>AHB</b>	Automated Half Barrier	<b>DfT</b>	Department for Transport	<b>GSM-R</b>	Global System for Mobile comms – Railways	<b>NSCD</b>	Negative Short Circuiting Device
<b>ARL</b>	Arriva Rail London	<b>DOO</b>	Driver Only Operation	<b>GTR</b>	Govia Thameslink Railway	<b>NSIP</b>	National Stations Improvement Programme
<b>ARS</b>	Automatic Route Setting	<b>DPI</b>	Delay Per Incident	<b>HAVS</b>	Hand Arm Vibration Syndrome	<b>O&amp;M</b>	Operations & Maintenance
<b>ASC</b>	Area Signalling Centre	<b>DR</b>	Digital Railway	<b>HS1</b>	High Speed 1	<b>OD</b>	Obstacle Detection
<b>ATO</b>	Automatic Train Operation	<b>DRAM</b>	Director, Route Asset Management	<b>HV</b>	High Voltage	<b>Opex</b>	Operational Expenditure
<b>BTP</b>	British Transport Police	<b>DRHSQE</b>	Director, Route Health, Safety, Quality and Environment	<b>IECC</b>	Integrated Electronic Control Centre	<b>ORR</b>	Office of Rail and Road
<b>C-DAS</b>	Connected-Driver Advisory System	<b>DU</b>	Delivery Unit	<b>ICM</b>	Infrastructure Cost Model	<b>PAVA</b>	Public Address and Voice Alarm
<b>Capex</b>	Capital Expenditure	<b>EAUC</b>	Electricity Access Usage Charge	<b>IMS</b>	Incident Management System	<b>PPE</b>	Personal Protective Equipment
<b>CCTV</b>	Closed Circuit Television	<b>E&amp;P</b>	Electrification & Plant	<b>IP</b>	Infrastructure Projects	<b>PPF</b>	Putting passengers and freight users first
<b>CIS</b>	Customer Information System	<b>EMGPTA</b>	Equivalent Million Gross Tonnes Per Annum	<b>KPI</b>	Key Performance Indicator	<b>PPM</b>	Public Performance Measure
<b>CMSP</b>	Continual Modular Strategic Planning	<b>ETCS</b>	European Train Control System	<b>KVL</b>	Key Volume Line	<b>RAM</b>	Route Asset Manager
<b>CNI</b>	Critical National Infrastructure	<b>FDM</b>	Freight Delivery Metric	<b>LED</b>	Light Emitting Diode	<b>RCM</b>	Remote Condition Monitoring
<b>COO</b>	Chief Operating Officer	<b>F42</b>	Framework 42	<b>LEP</b>	Local Enterprise Partnership	<b>RCM</b>	Remote Condition Monitoring
<b>CP</b>	Control Period	<b>FOC</b>	Freight Operating Company	<b>LEWIS</b>	Lineside Early Warning System	<b>RDG</b>	Rail Delivery Group
<b>CRAM</b>	Corporate Risk Assessment Matrix	<b>PO</b>	Freight and National Passenger Operators	<b>LTIFR</b>	Lost Time Injury	<b>RFD</b>	Route Financial Director
<b>CRI</b>	Composite Reliability Index	<b>FPM</b>	Financial Performance Measure				

## Eastern Region Strategic Plan Appendix

	Frequency Rate				System		
<b>MMT</b>	Mobile Maintenance Train	<b>RLSE</b>	Red Light Safety Equipment	<b>SDG</b>	Sustainable Development Goals	<b>WD</b>	Works Delivery
<b>MSL</b>	Miniature Stop Lights	<b>RM3(P)</b>	Risk Management Maturity Model (Performance)	<b>S-DAS</b>	Standalone-Driver's Advisory System		
		<b>RSP</b>	Route Strategic Plan (March 2019)	<b>SIN</b>	Safety Improvement Notice		
<b>RMD</b>	Route Managing Director	<b>T'link</b>	Thameslink	<b>SICA</b>	Signalling Infrastructure Condition Assessment		
<b>ROC</b>	Rail Operating Centre	<b>TM</b>	Traffic Management	<b>SO</b>	System Operator		
<b>RPM</b>	Route Performance Manager	<b>TRP</b>	Thameslink Resilience Programme	<b>SOBC</b>	Strategic Outline Business Case		
<b>RRP</b>	Responsible Railway Plan	<b>tph</b>	Trains per hour	<b>SoFA</b>	Statements of Funds Available		
<b>TPE</b>	Trans-Pennine Express	<b>EMR</b>	East Midlands Railway	<b>SPAD</b>	Signals Passed at Danger		
<b>RS</b>	Route Services	<b>TPR</b>	Timetable Planning Rules	<b>STE</b>	Safety, Technical and Engineering		
<b>RSP</b>	Route Strategic Plan	<b>TOC</b>	Train Operating Company				
<b>RTL</b>	Road Traffic Lights	<b>TSR</b>	Temporary Speed Restriction				
<b>S&amp;C</b>	Switches and Crossings	<b>UWC</b>	User Worked Crossing				
<b>S&amp;T</b>	Signalling & Telecoms	<b>VfM</b>	Value for Money	<b>TfL</b>	Transport for London		
<b>SatWaS</b>	Satellite-based Warning	<b>VTAC</b>	Variable Track Access Charge				