

Annual assessment of Network Rail

April 2019 – March 2020



Executive summary

- 1 The Office of Rail and Road holds Network Rail to account for its management of the rail network. We monitor how well it operates the network to keep trains running on time, and whether it is keeping the network safe and in good condition.
- 2 This report is our 'Annual assessment of Network Rail'¹. It sets out our views on Network Rail's performance in 2019-20, the first year of Control Period 6 (CP6) which runs from 1 April 2019 to 31 March 2024. Separate chapters provide greater detail on network-wide performance, performance of Network Rail's regions, its System Operator function and its Freight & National Passenger Operator function.

The impact of the coronavirus pandemic

- 3 The coronavirus (COVID-19) pandemic has led to exceptional challenges for society – and this is just as true for Network Rail and the rail sector as it is for the wider economy. While the pandemic occurred towards the end of 2019-20, Network Rail's delivery at the year-end was impacted and needed to be different, while continuing essential work. So, this report looks at performance across the year, and separately reviews Network Rail's response to coronavirus.

Assessing performance throughout the year

- 4 In looking at Network Rail's performance across the year, we assess its delivery of the outcomes that matter to rail users and governments, and take a forward look at future delivery and risk management. Key requirements are captured in our Periodic Review 2018 (PR18) Final Determination², which reflects governments' High Level Outputs Specifications, and in Network Rail's network licence.
- 5 In reviewing Network Rail's performance we focus on:
 - train performance (passenger and freight);
 - how it is maintaining, renewing and enhancing the network;
 - health and safety (this document provides an overview – our full review is in our annual report on health and safety); and
 - efficient delivery and financial performance (this document provides an overview – our full review is in our Annual Efficiency and Finance Assessment).
- 6 We also look at Network Rail's System Operator function – how it plans network capacity over the long term, manages access to the network and ensures that there is a working timetable.

¹ This report replaces the Network Rail Monitor, which we have published in previous years

² PR18 Final Determination: <https://orr.gov.uk/rail/economic-regulation/regulation-of-network-rail/price-controls/periodic-review-2018/publications/final-determination>

Network Rail's reorganisation

- 7 Network Rail's reorganisation is called Putting Passengers First (PPF). It is restructuring to deliver through five regions, which have more autonomy and greater focus on customers. The regions are: Eastern, North West & Central, Network Rail Scotland, Southern, and Wales & Western. This annual assessment reports on performance in each of the regions in separate chapters, and also compares performance – identifying best practice and where there is room to improve.
- 8 The Putting Passengers First programme will see the devolution of parts of Network Rail's Infrastructure Projects, System Operator and other key functions over four phases, with the programme due to complete by the end of 2020.
- 9 The programme was paused earlier this year to prioritise making sure that critical workers and essential supplies were kept moving in response to the coronavirus pandemic, but has since resumed. We have continued to review the company's detailed proposals in order to understand their impact on commitments to its customers and funders and its relationships with stakeholders and have provided assessments at the completion of key stages.³

Our annual assessment key messages

Network Rail's management of its response to coronavirus has been strong

- 10 The coronavirus pandemic has presented huge challenges to Network Rail and the wider rail sector. It has been vital that it continues to deliver a safe operational railway to keep critical workers and freight moving.
- 11 In its response during 2019-20, Network Rail has managed safety and operational risks effectively, while introducing a reduced timetable to make sure that the railway remains open for critical workers and freight flows. It has done this while continuing to deliver the majority of planned engineering works. It has also continued to collect and analyse performance data to examine whether there are any key learning points from running a reduced service that can be applied for when services return to full operations.
- 12 The coronavirus pandemic will continue to have an impact on performance and delivery in 2020-21 and beyond. It is important that Network Rail plans effectively to respond to changes in operational requirements and governments' priorities. We are monitoring its ongoing response – with a focus on its forward planning and management of risks to future delivery – and will report on this in due course.⁴

³ Our assessment of Network Rail's proposals to date can be found here:

<https://orr.gov.uk/rail/economic-regulation/regulation-of-network-rail/holding-network-rail-to-account>

⁴ We have set out our approach to monitoring Network Rail during the coronavirus pandemic here: https://orr.gov.uk/data/assets/pdf_file/0006/42855/holding-network-rail-to-account-during-the-coronavirus-pandemic-2020-05-06.pdf

Passenger and freight train performance has varied by region

- 13 Network Rail plays a vital role in helping connect people and deliver goods by rail. Passengers and freight companies rely on a service that runs on time. The overall performance they experience depends on the actions of Network Rail, train operating companies and external factors.
- 14 In 2019-20, 64.8% of passenger trains arrived on time (within one minute of schedule) at recorded station stops, an improvement of 1.4 percentage points on the previous year. The proportion of trains classified as cancellations was 3.4%, 0.5 percentage points worse than the year before.
- 15 To understand Network Rail's contribution to performance and compare train performance across regions, we use two measures. For passenger services, we use the delay minutes caused by Network Rail, per 100 train kilometres. For freight services, we use a measure of Network Rail's ability to get commercial freight services to their destination within 15 minutes of scheduled time. We monitor delivery of these measures for each region against an annual trajectory / target and a regulatory minimum level (or floor).
- 16 In Scotland, we set a target requiring 92.5% of Abellio ScotRail trains to arrive at their final destination within five minutes of their scheduled time – to align with the Scottish Ministers' output requirements.
- 17 Passenger and freight performance has varied by region in 2019-20 – with some regions performing above target, and some below.
- 18 Passenger train performance in Scotland improved during the year but was worse than target. 88.5% of Abellio ScotRail trains arrived at their destination within five minutes of their scheduled time, lower than the target of 92.5%. The portion of train delay in Scotland attributed to Network Rail was better in 2019-20 than the previous year – but there can be no let-up in its focus on driving performance improvements.
- 19 Using the measure of Network Rail caused delay, performance in Wales & Western was best. In particular, the region successfully implemented a large timetable change while maintaining performance, and is now sharing that best practice with other regions. Performance was also good in Southern. Performance was lower than target in North West & Central, Network Rail Scotland, and Eastern regions. In North West & Central it fell below the minimum level that we set.
- 20 Freight performance was poor. 92.8% of freight services were delivered successfully.⁵ This was worse than the target of 94%. Performance for freight was above Network Rail's internal target in Wales & Western and Network Rail Scotland, but below in all other regions. It fell below the minimum level that we set in Eastern and North West & Central.
- 21 Earlier this year we investigated passenger and freight performance issues in North West & Central. We found that the region was taking performance improvements very seriously but had not, at the time, produced time-bound improvement plans. It has now produced these and must deliver them. We will monitor progress and take action if delivery stalls.

⁵ As measured by the Freight Delivery Metric (FDM). Services are deemed to have failed the measure when they have been cancelled, or delayed by 15 minutes or more, by Network Rail or another operator that is not a commercial freight operator.

- 22 Rightly, Network Rail's focus is now on its response to the coronavirus pandemic, but it must continue to address underlying performance issues across the network. We will consider further review when services have returned to a more steady-state.
- 23 Network Rail promised to make further changes to improve national performance in response to our enforcement action in 2018⁶. It has made reasonable progress in implementing those changes. For example, it has developed a new performance improvement management system to strengthen planning and delivery of improved train performance.

Network Rail has made good progress in renewing its network, but asset resilience needs to improve

- 24 In PR18, ORR placed significant emphasis on Network Rail managing its assets to support long-term condition and performance.
- 25 Network Rail has made progress in delivering on asset sustainability requirements and all regions have delivered their planned renewals volumes for the year – a good start to delivery in CP6.
- 26 However, asset reliability has reduced for some asset categories since the start of the year. Network Rail hit its internal target for four of the regions, but missed it for Eastern – where track and overhead line failure rates have been high.
- 27 The rail network suffered more delays due to severe weather in 2019-20. Network Rail must continue to progress its work to develop more robust resilience plans to mitigate against climate change and severe weather.
- 28 Network Rail must improve its reporting of maintenance delivery to demonstrate that it is managing asset defects and carrying out routine work effectively.

Health and safety on the network needs continued focus

- 29 It is vital that Network Rail protects the safety of passengers and those working on the railway. Safety on the rail network remains good overall – we have one of the safest railways in the world.
- 30 But tragically, two rail workers lost their lives in July 2019 and there has been a further fatality this year, showing very clearly that more must be done. The industry must make sure it learns lessons to prevent this happening again. We are working closely with Network Rail on its response, including its Track Worker Safety Task Force.
- 31 ORR has issued two national improvement notices concerning track worker safety. The company is responding positively, but with variation between regions. Eastern is most advanced in its response.

⁶ ORR's Provisional Order issued against Network Rail to deliver improved performance: <https://orr.gov.uk/rail/investigations-and-current-issues/provisional-order-issued-against-network-rail-to-deliver-improved-performance>

- 32 Measures of worker safety show an improvement in 2019-20 compared to the previous year. But Network Rail missed its internal target for worker safety, as measured by the lost time injury frequency rate.
- 33 Passenger and public safety on the rail network remains good. All regions performed strongly against their targets for passenger train accident risk reduction.
- 34 There were two fatalities at level crossings in 2019-20 – the equal lowest number on record. But level crossings remain a high risk area. Network Rail closed 77 level crossings during the year and met its national target for milestones to reduce level crossing risk. Eastern and Southern met or exceeded their targets while the other regions fell short.
- 35 2019-20 saw the lowest number of trespass fatalities for 10 years, and the number of reported trespass incidents was lower than the previous year.
- 36 We assess Network Rail's health and safety management maturity using the Risk Management Maturity Model (RM3). In 2019-20 we found that its maturity was primarily at the managed and standardised levels⁷. The framework set by central functions is often more mature than the delivery of rules, standards and programmes by regions. For Network Rail's maturity to improve further, regions need to own the risk control framework more fully.
- 37 Risks on the network are changing – and the overall level of modelled risk has increased. This is mainly due to earthworks failures caused by more frequent and severe weather events. Network Rail has a plan to mitigate the impacts of climate change but these events indicate that the plans are not keeping up with the pace of change.
- 38 We have investigated a significant number of electrical safety incidents this year. These have shown weaknesses in Network Rail's risk control and raised concern over legal compliance. We are encouraged by the resource and level of governance that Network Rail has committed to the Electrical Safety Delivery Programme.
- 39 Our reporting of health and safety on the rail network is in a separate publication, ORR's annual report on health and safety.

⁷ Maturity is measured on a five point scale: ad-hoc, managed, standardised, predictable, excellence

Network Rail has improved its financial performance and efficiency

- 40 Network Rail must carry out its work efficiently – to deliver the best outcomes for taxpayers' and customers' money.
- 41 Overall, Network Rail outperformed its CP6 delivery plan by £10m in 2019-20 – a significant turnaround from its financial underperformance in CP5. This was mostly due to better than planned efficiency savings on its operations, support, maintenance and renewals activities – Network Rail has reported £385m of efficiency, ahead of its £316m commitment.
- 42 However, in England and Wales, enhancements underperformed by £94m, mostly due to cost increases on the Great Western Electrification Programme (GWEP) and Crossrail. Although we require Network Rail to report the financial performance of its enhancements, we are not currently responsible for monitoring its efficiency in enhancements in England and Wales. Conversely, in Scotland Network Rail outperformed in enhancements spend.
- 43 Eastern, Network Rail Scotland and Wales & Western all exceeded their efficiency plans in 2019-20, with Eastern delivering the largest efficiency. Southern met its plans and North West & Central slightly under-delivered.
- 44 Network Rail has committed to deliver £3.5bn of operations, maintenance and renewals efficiency in CP6 and has developed an improvement plan to achieve this. We have reviewed its regional efficiency plans. These show improvements – but more needs to be done, particularly in relation to the quality of renewals plans.
- 45 Network Rail's efficiency planning for CP5 was poor, leading to poor efficiency outcomes. So, we are monitoring plans to deliver CP6 efficiency closely, using a wider range of leading indicators. These show progress in developing the renewals workbank for 2020-21 – for example, 82% of remits for planned renewals have been accepted by the supply chain. But the percentage of bookings for engineering works in 2020-21 (76%) is behind the company's internal target and lower than last year. This represents a risk to the efficient delivery in 2020-21.
- 46 Network Rail's analysis of leading indicators was undertaken before the coronavirus pandemic. There will be disruption, particularly to renewals delivery and related efficiencies during 2020-21. We will report on this in due course and say more in our Annual Efficiency and Finance Assessment, to be published shortly.

Network Rail's System Operator is making improvements to its timetabling – but there is more to do

- 47 Network Rail's System Operator coordinates the process for fixing a base timetable twice a year and for making short-term changes to it. It is required to provide information to train operators so that they can meet their information obligations to passengers.
- 48 May 2019 and December 2019 timetable changes were generally well delivered – but the May timetable contributed to poor train performance in North West & Central. Services on the newly electrified route between London and Cardiff were introduced successfully in Wales & Western.
- 49 The System Operator aims to confirm timetables 12 weeks ahead of travel to open up ticket bookings. It achieved this for all operators in 2019-20, but these timescales have been impacted by the response to the coronavirus pandemic as Network Rail rightly focuses on contingency timetables while protecting its workforce from harm.
- 50 The System Operator is at an early stage of developing and delivering high priority improvement programmes to support timetable development. During 2019-20, it has been working to define the outputs from these programmes. Some quick-wins have been delivered, such as upgrades to train planning software.
- 51 Network Rail is working well with the industry (through the Rail Delivery Group) to deliver an industry-wide passenger information improvement plan.

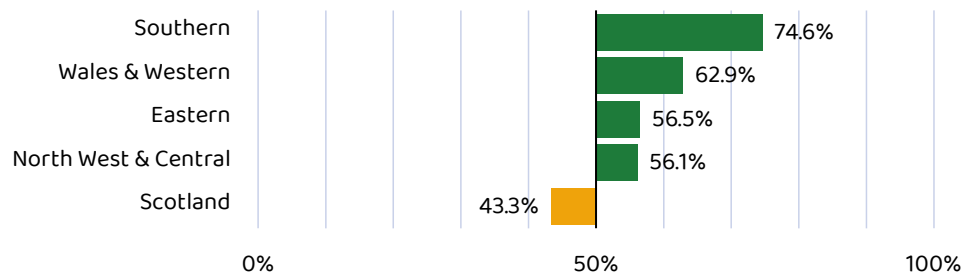
Network Rail Scotland is making good progress in delivering the Scottish Ministers' requirements

- 52 In PR18, we set a number of requirements specific to Scotland – reflecting what the Scottish Ministers wanted Network Rail to deliver during CP6. The company also worked with industry to establish a series of plans to deliver specific measures, including journey time improvements and freight growth.
- 53 Network Rail Scotland has made good progress with delivery of these requirements and plans. We consider only one area to be at risk – Network Rail Scotland's delivery of its gauge strategy. There have been delays in securing agreement with Transport Scotland on funding for the strategy and this needs to be resolved. Overall, Network Rail Scotland has shown commitment to delivering these requirements. We will continue to monitor progress in 2020-21.

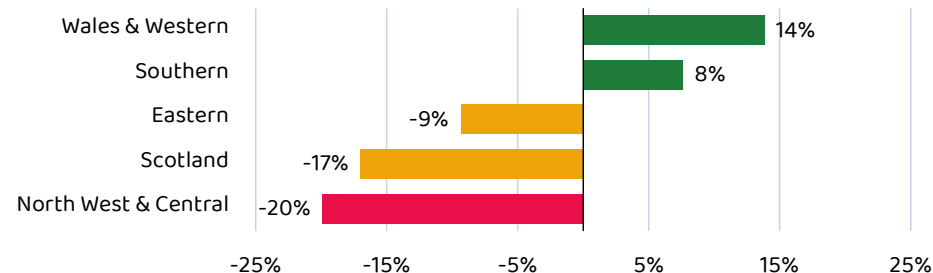
Comparison of regional performance

54 Network Rail's regions measure their performance using a set of metrics and internal targets (some of which they seek to agree with their customers) – which they report on in a “scorecard” format. We consider this alongside other indicators of performance.

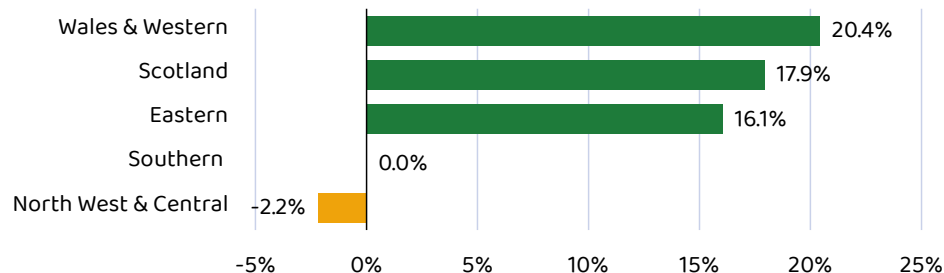
Region scorecard performance, 2019-20



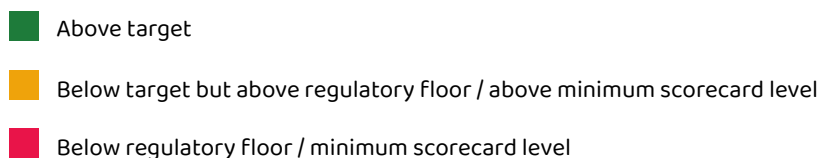
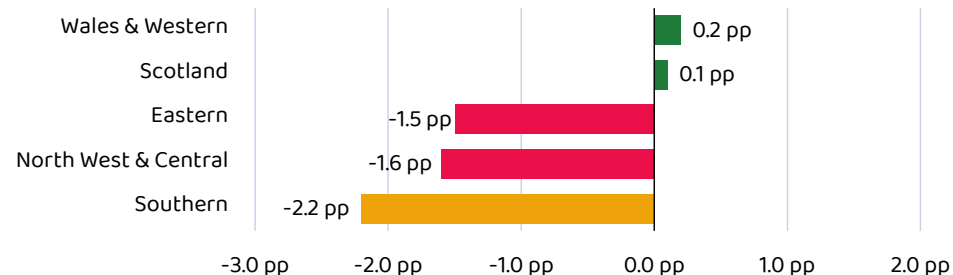
Passenger train performance (Network Rail caused delay minutes normalised, CRM-P) – % better / worse than target, 2019-20



Efficiencies - variance of actual to plan, 2019-20



Freight train performance (FDM-R) – percentage points better / worse than regional targets, 2019-20



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Context



1. Context

- 1.1 The Office of Rail and Road holds Network Rail to account for its management of the rail network. We monitor how it operates the network to keep trains running on time, and how it keeps the network safe and in good condition.

Purpose of this document

- 1.2 This report is our 'Annual assessment of Network Rail'. It sets out our views on Network Rail's performance in 2019-20, the first year of Control Period 6 (CP6) which runs from 1 April 2019 to 31 March 2024. Separate chapters provide greater detail on network-wide performance, performance of Network Rail's regions, its Freight & National Passenger Operators function and its System Operator function.

ORR's role

- 1.3 ORR's role is broad. Our functions in the rail sector include: regulation of the rail industry's health and safety performance; holding Network Rail and HS1 to account for delivery of performance and value for money; protecting competition in the rail sector; and protecting passengers from breaches in consumer law.
- 1.4 This report centres on our regulation of Network Rail – holding it to account for delivering high levels of performance and service, as well as good value for money – for passengers, the freight industry and taxpayers.
- 1.5 We assess Network Rail's performance in delivering the outcomes that matter to rail users and governments. These are captured in our Periodic Review 2018 (PR18) Final Determination, which reflects governments' High Level Output Specifications, and Network Rail's network licence.

Stakeholder engagement

- 1.6 We also monitor and assess the quality of Network Rail's stakeholder engagement during CP6. This is an important aspect of how we ensure that it continues to deliver the outcomes that matter to rail users and governments.
- 1.7 In 2019-20, we focused on how well Network Rail's regions, System Operator and Freight & National Passenger Operator (FNPO) functions have engaged on annual business planning and setting performance targets (in scorecards). We have sought feedback (including through a survey) from a range of stakeholders and funders on their experiences of engaging with Network Rail on these issues. We expect to publish our assessment of this, taking account of stakeholders' feedback, later this summer.

Network Rail's role

- 1.8 Network Rail operates, maintains, renews and improves the rail infrastructure to deliver a safe and reliable railway for passengers and freight customers. That includes 20,000 miles of track, 30,000 bridges, tunnels and viaducts, signalling and electrical power assets, and 20 of the largest railway stations.
- 1.9 In September 2019, Network Rail began its transformation programme called Putting Passengers First, creating 14 new routes, which are supported by five Network Rail regions, each led by a managing director. The devolved regions are intended to be more responsive to the local needs of train operators, passengers and freight users. They are: Eastern, North West & Central, Network Rail Scotland, Southern, and Wales & Western.
- 1.10 The routes are responsible for operations, maintenance and minor renewals. This includes the day-to-day delivery of train performance and the relationship with their local train operating companies. The regions are supported by the Network and Route Services functions.

Figure 1.1: Network Rail's regions and routes



Source: Network Rail

Network Rail's scorecards and reporting

- 1.11 Network Rail measures its company-wide and regional performance in core areas of its business using sets of metrics and internal targets. It captures these in national and regional 'scorecards'.⁸ We require Network Rail to include a set of consistent measures on all scorecards to allow comparison between regions and over time. (The version of the 2019-20 scorecards used for the purposes of this report were supplied by Network Rail to ORR on 12 June 2020. These may differ from those published later in Network Rail's Annual Return.)
- 1.12 Regions engage with their stakeholders to understand their priorities and determine the measures and targets to be included on scorecards for the coming year. Measures and targets set locally with train and freight operators make up a portion of region scorecards. Each region's scorecard includes six sections: safety, financial performance, investment, asset management, train performance and locally driven customer measures (although some regions combine the latter two into one 'customer measures' section). Scorecard targets vary across regions and some reflect the specific and stretching requirements of Network Rail's funders (most notably in Scotland).
- 1.13 Performance for each scorecard measure is expressed as a percentage achievement between zero and 100. On-target performance is shown as 50%.⁹
- 1.14 While scorecards are a key part of how Network Rail judges its own performance, we draw on wider information and apply greater weight to certain metrics (for example where we have specified them for regional comparison). This approach is reflected throughout this report. We are keeping our approach to scorecards under review.
- 1.15 Note that, throughout this document, our reporting of Network Rail's efficiency and wider financial performance is based on draft financial information provided by the company. We will report more fully on these matters in our annual efficiency and finance assessment which we expect to publish this summer.

Document outline

- 1.16 This document is divided into chapters to reflect both our PR18 determination and Network Rail's regional structure. It covers:
 - Network Rail's network-wide performance, including regional comparisons;
 - performance in each of Network Rail's five regions (including Scotland);
 - performance of Network Rail's Freight & National Passenger Operators function;
 - performance of Network Rail's System Operator function; and
 - performance of Network Rail's Wales route.

⁸ It also sets Freight & National Passenger Operator and System Operator scorecards – we report in the relevant chapters

⁹ Information on how scorecards work and metric definitions are available on Network Rail's website:

<https://www.networkrail.co.uk/wp-content/uploads/2019/11/Scorecard-Guidance-2019-20.pdf>.

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Network-wide performance and regional
comparison



2. Network-wide performance and regional comparison

- 2.1 This chapter reviews performance across Network Rail's five regions and cross-cutting functions – but excluding its System Operator and Freight & National Passenger Operator functions, which are reviewed in separate chapters. It assesses performance across Network Rail as a whole and compares performance across regions.

Network Rail's reorganisation

- 2.2 Network Rail is in the process of restructuring to deliver through its five regions. The Putting Passengers First (PPF) programme, due to complete by the end of 2020, will see the devolution of parts of its Infrastructure Projects, System Operator and other key functions to its regions over four phases.
- 2.3 We have reviewed the company's detailed proposals in order to understand their impact on commitments to its customers and funders and on its relationships with stakeholders. We have provided assessments at the completion of key stages.
- 2.4 The first two phases of Putting Passengers First have gone well, delivering a smooth transfer of accountabilities. Network Rail adjusted its planned implementation timeline to make sure its proposed changes did not cause unnecessary disruption.
- 2.5 We set out previously that Network Rail should make sure that the programme does not negatively impact its delivery in the first and second years of Control Period 6 (CP6). This includes its frontline delivery and more strategic work (such as accurate public reporting). In 2019-20, there has been an impact on its ability to provide a clear narrative to support its business planning activities. This must improve for next year.
- 2.6 During the year, Network Rail devolved some of its System Operator functions to Network Rail Scotland. It has taken steps to make sure that the System Operator still takes primary responsibility for establishing and maintaining long-term plans for the whole network (as required by its network licence), and has engaged with us on these.
- 2.7 It is important that Network Rail communicates these changes to its stakeholders, and makes sure that they do not impact its ability to engage with them. Although Network Rail's engagement has improved in some areas, with more regular progress updates, there has still been considerable variation in the quality of engagement by region and function. Network Rail has committed to build on the progress it has made so far – including carrying out more stakeholder listening events. We welcome this.

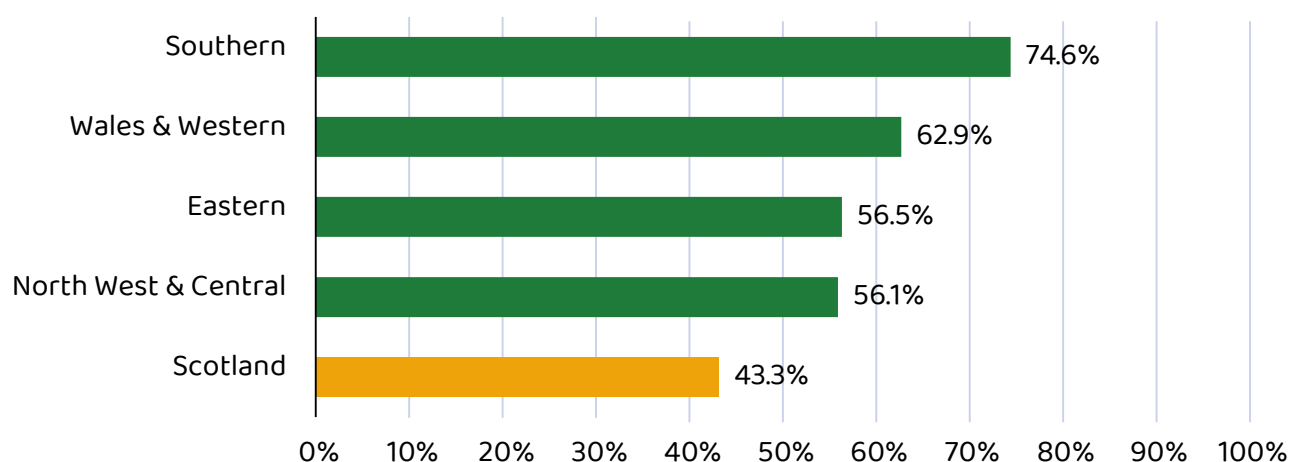
Network Rail's management of its response to coronavirus has been strong

- 2.8 The coronavirus pandemic has presented huge challenges to Network Rail and the wider rail sector. It has been vital that it continues to deliver a safe operational railway to keep critical workers and freight moving.
- 2.9 In its response during 2019-20, Network Rail acted with speed and decisiveness. It worked closely with ORR, governments, the Rail Delivery Group and the wider sector to establish the industry crisis management structure. This has been working well.
- 2.10 It established its priorities for delivery during the current restrictions: keeping the network open; looking after its people; maintaining infrastructure integrity; delivering capital investment; and ensuring business continuity. We agree that these are the right areas of focus.
- 2.11 It managed safety and operational risks effectively, including quickly and effectively developing emergency standards. We worked with the company to agree its approach to those standards and their implementation.
- 2.12 Working with stakeholders across the industry, it quickly introduced a reduced timetable, making sure that the railway remains open for critical workers and freight flows.
- 2.13 It made changes to working practices and processes to deal with the coronavirus pandemic while protecting its staff – engaging collaboratively with unions and the supply chain on these measures. It continued to deliver engineering work where possible. It also took measures to support the wider sector, such as accelerating payments to suppliers and extending payment terms.
- 2.14 Looking across the range of activities that Network Rail carried out, we consider that its initial response to coronavirus has been strong.
- 2.15 The coronavirus pandemic will continue to have a huge impact on performance and delivery in 2020-21 and beyond. It is important that Network Rail plans effectively to respond to changes in operational requirements and governments' priorities. We are monitoring Network Rail's ongoing response – with a focus on its forward planning and management of risks to future delivery – and will report on this in due course. Network Rail must continue to make improvements to its business planning process, making sure it meets the needs of its customers and funders, and explicitly capturing the impact of the coronavirus pandemic on its delivery and plans.

Network Rail is largely achieving its internal performance (scorecard) targets

2.16 Network Rail measures its company-wide and regional performance using scorecards. Four of its five regions achieved more than 50% overall on their scorecards – indicating that, in the round, they exceeded their internal targets. Southern performed best, achieving 74.6%. Wales & Western, Eastern and North West & Central all exceeded 50%. Network Rail Scotland was the only region which was worse than target overall – achieving 43.3%.

Figure 2.1: Region scorecard performance, end of 2019-20

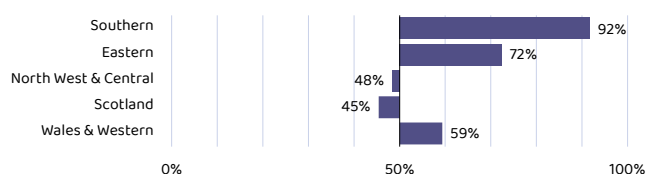


Source: Network Rail's region scorecards

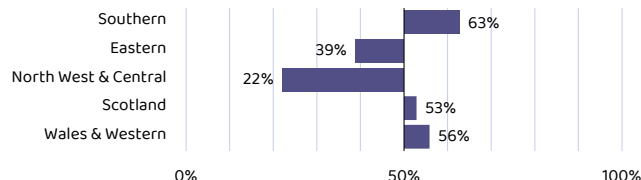
2.17 The charts below represent performance for the individual scorecard sections. A 50% score (the central vertical line) means a region met its targets. A score above 50% (to the right) means outperformance and a score below 50% (to the left) means underperformance.

Figure 2.2: Region scorecard performance by scorecard section, 2019-20

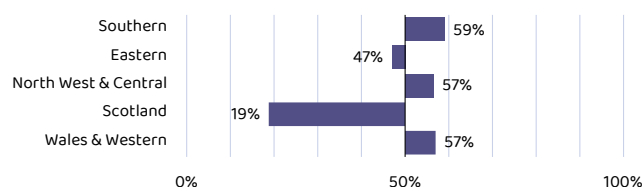
Safety



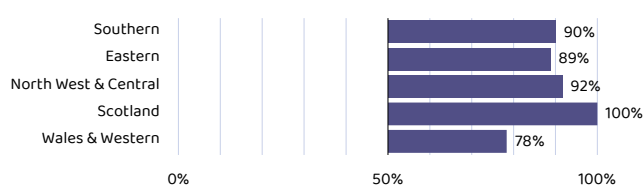
Financial Performance



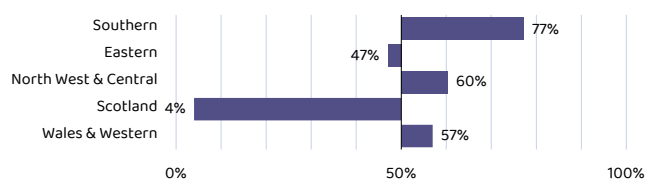
Train Performance



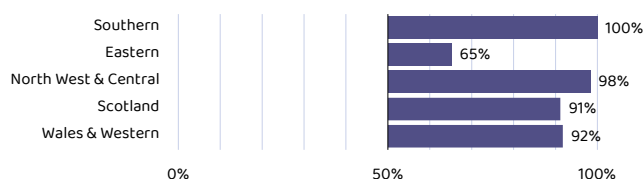
Investment



Customer Measures



Asset Management



Source: Network Rail's region scorecards

2.18 All regions delivered above their internal targets in asset management and investment. Regions delivered variable results against train performance and customer measures. Southern delivered most strongly in these areas, and Network Rail Scotland most poorly. Southern delivered most strongly in financial performance. North West & Central and Eastern both missed their internal targets for financial performance.




Passenger and freight train performance varied by region

Train performance matters to passengers and freight customers. They want trains that run reliably and arrive on time. Network Rail plays a vital role in helping connect people and deliver goods by rail. Passenger and freight performance has varied by region in 2019-20. Some regions performed above target, and others below.

Whole sector performance

- 2.19 Network Rail plays an important role in making sure that train performance is delivered – for example, by developing and operating the timetable, minimising the occurrences and impact of asset failures, minimising the impact of engineering works, and helping recover services after disruption. But performance delivery also depends on the actions of train operating companies, and some factors where Network Rail has less control, such as extreme weather.
- 2.20 So, we measure train performance using a range of indicators. Our assessment of overall train performance is based primarily on three measures:
- on-time: the percentage of passenger trains that arrive on time (within one minute of scheduled) at recorded station stops;
 - cancellations: the amount of trains that are cancelled as a percentage of trains planned. The measure is a score which weights full cancellations as one and part cancellations as half; and
 - Public Performance Measure (PPM): the percentage of passenger trains that arrive at their final destination within five minutes of their scheduled time (10 minutes for long-distance trains). In Scotland, we have set a PPM target of 92.5% to align with the Scottish Ministers' output requirements.
- 2.21 During 2019-20, on-time performance has improved across the network, but PPM has remained static. This is because cancellations have increased, impacting PPM. In Scotland, on-time performance, PPM and cancellations all improved, but Abellio ScotRail still missed the PPM target. 88.5% of Abellio ScotRail trains arrived at their destination within five minutes of their scheduled time, lower than the target of 92.5%.¹⁰ This is discussed in the Network Rail Scotland chapter.

Figure 2.3: Punctuality and reliability, Great Britain, 2019-20

Moving annual average	2019-20	Compared with 2018-19
On Time	64.8%	 1.4 pp
PPM	86.2%	 -0.1 pp
Cancellations Score	3.4%	 0.5 pp

Source: ORR analysis of Network Rail data

¹⁰ The Scottish Ministers specified a particularly challenging target of 92.5% PPM for Abellio ScotRail services in its HLOS. Network Rail Scotland was clear in its plans for CP6 that it was unlikely to achieve the target until the end of 2021-22.

Network Rail's regional performance

2.22 To compare performance across regions, we use two consistent measures:

- a consistent region measure for passenger services known as CRM-P. This is all of the delay minutes to passenger services caused by each Network Rail region, normalised per 100 train kilometres; and
- a freight delivery metric for each region known as FDM-R. This is a measure of Network Rail's ability to get commercial freight services to their destination within 15 minutes of scheduled time.

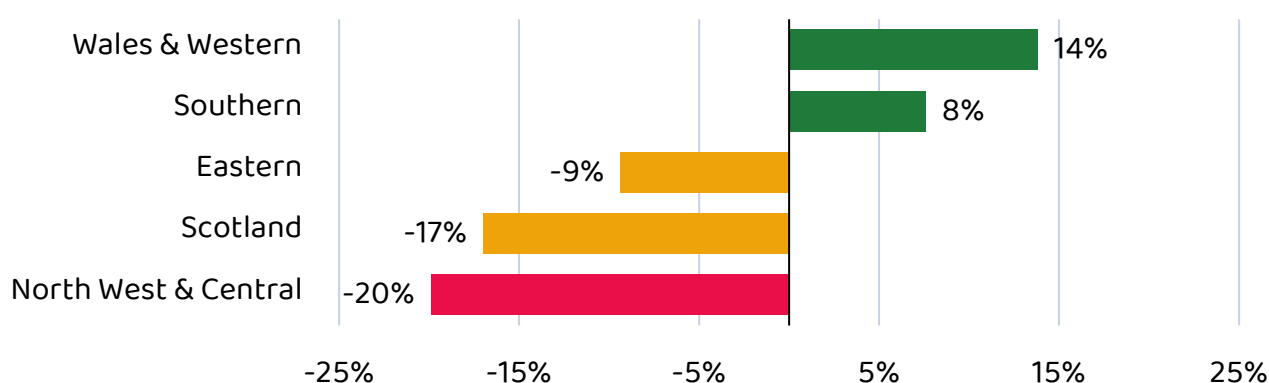
2.23 We monitor delivery of these measures for each region against an annual trajectory / target and a regulatory minimum level (or 'floor') – both of which we set in our PR18 final determination. The floor signals the point at which we are highly likely to consider investigating.

Network Rail's passenger performance was mixed

2.24 Regions' contributions to passenger train performance in 2019-20 were variable. Performance in Wales & Western and Southern regions was generally good. Performance was lower than required in Scotland, North West & Central, and Eastern regions. In North West & Central it fell below the regulatory floor.

2.25 We reviewed performance issues in North West & Central. We found that it was taking performance improvements very seriously but had not, at the time of our review, produced time-bound improvement plans. It has now produced these and must deliver them. We will monitor progress and take action if delivery stalls.¹¹

Figure 2.4: Passenger train performance (Network Rail caused delay minutes normalised, CRM-P) – % better / worse than target, 2019-20



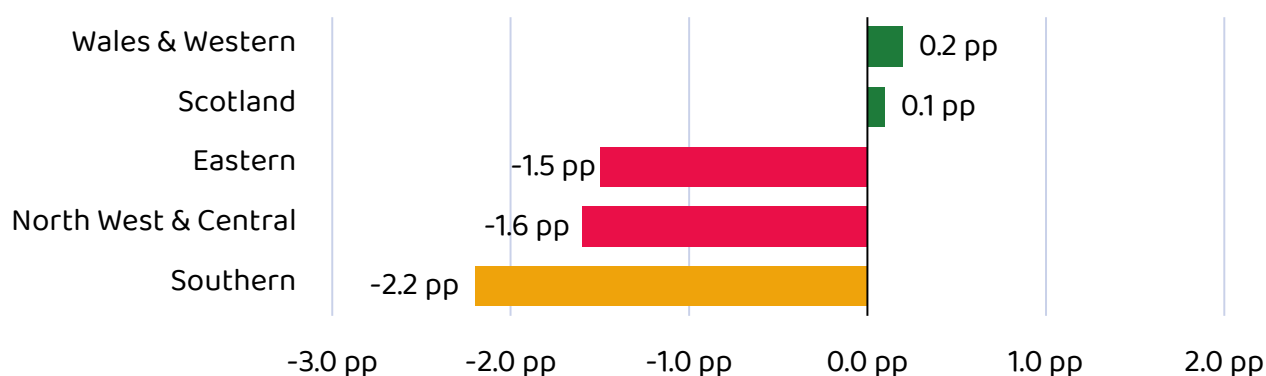
Source: ORR analysis of Network Rail data

¹¹ Further detail is provided in the North West & Central chapter

Network Rail's freight performance was poor

2.26 Freight performance in 2019-20 was poor. 92.8% of commercial freight services arrived at their planned destination within 15 minutes of their booked arrival time or with less than 15 minutes of Network Rail or passenger operator delay. This was worse than the target of 94%. Performance was better than Network Rail's internal targets in Network Rail Scotland and Wales & Western but worse than target in all other regions. It fell below the minimum level that we set in Eastern and North West & Central.

Figure 2.5: Freight performance (FDM-R)
– percentage points better / worse than regional targets, 2019-20



Source: ORR analysis of Network Rail data

Addressing poor train performance

2.27 We have established processes for enhanced monitoring where Network Rail's contribution to train performance falls short. Rightly, Network Rail's focus is now on its response to the coronavirus pandemic, but it must continue to address underlying performance issues. We will consider further review when services have returned to a more steady state.

Wider train performance capability

Network Rail promised to make changes to improve performance in response to our enforcement action in 2018. It has made reasonable progress in implementing those changes but we have yet to see them translate into improved performance.

2.28 In 2018, ORR issued a Provisional Order¹² requiring Network Rail to improve its planning and delivery of train performance on the network. Network Rail responded by providing a plan for improvement containing commitments on the actions it would take. The company has made reasonable progress against those commitments. It has:

- made improvements to the joint performance plans, which it develops with operators – and responded well where we have identified shortcomings (for example, in the East Midlands route plan). We note that development of joint improvement plans for 2020-21 has been impacted by the more urgent need to respond to the coronavirus pandemic. To date, seven of 23 plans have been agreed with operators;
- been instrumental in developing a new Performance Improvement Management System (PIMS) to strengthen planning and delivery of improved train performance. This includes developing a new management maturity model (RM3-P) which both Network Rail and train operators are using to identify and address weaknesses in their management maturity;
- introduced new tools to look at very small delays, which cumulatively have a large effect; and
- invested in a number of programmes to pull together modelling, simulation and analysis of timetable performance to produce a more informed view around the risks associated with future timetable changes¹³. The programmes are at an early stage, but we have already seen improvements being delivered – for example, in Network Rail's assessment of capacity on the Elizabeth line. Particular focus is needed on improvements to understand the performance impacts of future timetable changes.

2.29 Not all areas have progressed as quickly as originally planned. For example, progress on the development of a new suite of leading indicators has been slow. This is now a key priority for the PIMS programme, and we expect to see significant progress in the coming months.

2.30 As well as planning and delivery of improvements, Network Rail's response identified weaknesses in its capability to recover service from incidents on the network (in collaboration with train operators). It has set up a 21st Century Operations programme to tackle declining levels of operational expertise. Initiatives include balancing the workload of Local Operations Managers and working with the Institute of Rail Operators to improve training. This is a positive step.

¹² ORR's Provisional Order issued against Network Rail to deliver improved performance: <https://orr.gov.uk/rail/investigations-and-current-issues/provisional-order-issued-against-network-rail-to-deliver-improved-performance>

¹³ These programmes include the Industry Timetable Performance Modelling Programme (the recently re-established Whole System Modelling Programme), Data Improvement Programme, iTPS Programme, Access Planning Programme and Industry Technical Strategy.

- 2.31 As the controller of the rail network, Network Rail can help reduce the knock-on impact of delays on other services. We measure the ratio of 'primary delay' to 'reactionary delay'. Nationally, this has remained flat in 2019-20.
- 2.32 Overall, Network Rail has made positive progress on the commitments it made in its response to the Provisional Order. A constant and sustained focus is needed to ensure that benefits from these improvements are fully realised and we will continue to monitor progress.

Network Rail is making changes to improve passenger information

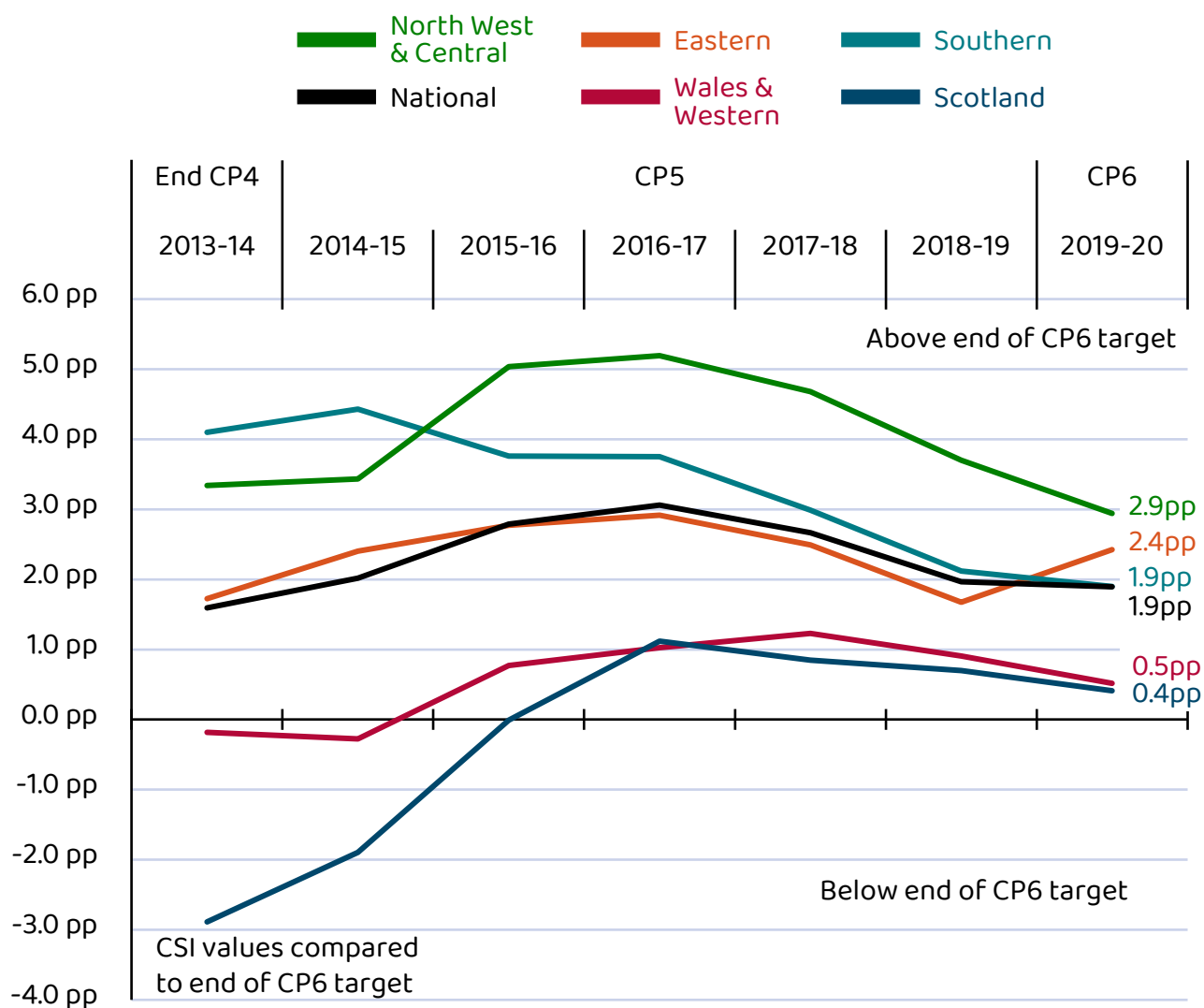
- 2.33 Rail passengers rely on good quality information when planning and making journeys. Network Rail plays a vital role in providing information to train operators, including during disruption. This can help operators provide information to their passengers on the cause of a delay and plans for the restoration of services. This role is reflected in a core passenger information duty in the network licence.
- 2.34 Network Rail is working well with the industry (through the Rail Delivery Group) to deliver an industry-wide passenger information improvement plan, together with an assessment tool – known as the Customer Information Measure – to help the industry drive continuous improvement in the delivery of customer information.
- 2.35 The System Operator aims to confirm timetables 12 weeks ahead of travel to open up ticket bookings. It achieved this for all operators in 2019-20. Further information on Network Rail's provision of passenger information will be reported in our Annual Rail Consumer Report.

Network Rail has made good progress in renewing its network, but asset performance needs focus

In PR18, ORR placed significant emphasis on Network Rail managing its assets to support long-term condition and performance. In 2019-20, it largely delivered the renewals work that it had planned. This is a good result. If it continues to deliver over the control period, this will support long-term network condition and performance outcomes.

- 2.36 Network Rail needs to manage the rail network sustainably – that is, it needs to maintain and renew its assets to minimise costs over the long-term while meeting future demand and ensuring the safe and reliable running of the network.
- 2.37 In CP6, we use a consistent regional measure of network sustainability called the Composite Sustainability Index (CSI). Network Rail has a target for each region for the end of the control period.
- 2.38 The CSI measure is currently above (better than) the target level set for the end of CP6. That said, CSI reduced in all regions from the previous year with the exception of Eastern where data have been corrected. An initial review suggests that performance is in line with expectations but we will review this further with Network Rail over the coming months.

Figure 2.6: Composite sustainability index (CSI) by region, 2013-14 to 2019-20



Source: ORR analysis of Network Rail data

2.39 Network Rail has almost fully delivered its planned number of asset renewals for its seven key asset categories in all regions. This is a good outcome.

Figure 2.7: Renewals delivery against plan, Great Britain, 2019-20

7 key volumes (renewals)	Network		
	Actual	Plan	% complete
Conductor Rail Renewal (km)	17	12	▲ 137%
Earthworks	3,408	2,856	▲ 119%
OLE re-wire and mid-life refurb (km)	151	54	▲ 279%
Plain Line	1,134	922	▲ 123%
Switches and Crossings	709	587	▲ 121%
Signalling	529	420	▲ 126%
Underbridges	50,090	41,633	▲ 120%

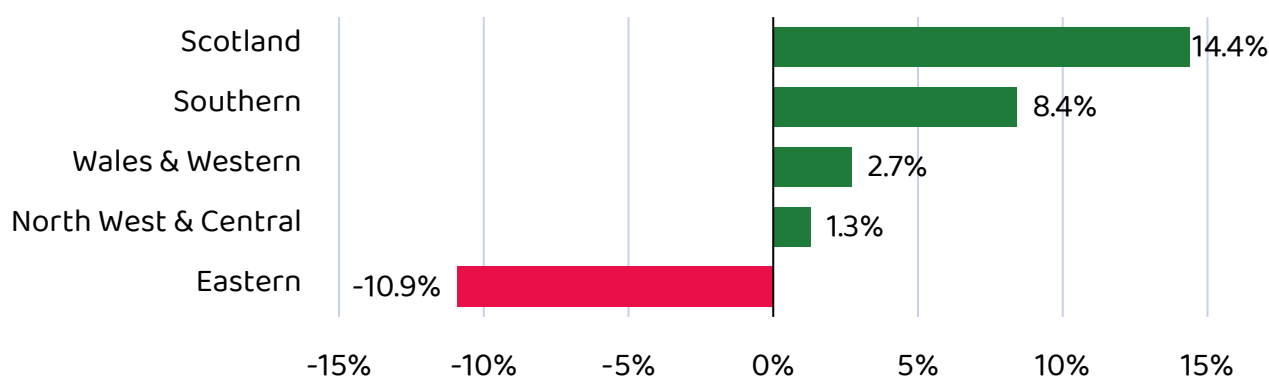
Source: ORR analysis of Network Rail data

Delays caused by asset failures are high

2.40 We measure asset reliability using the Composite Reliability Index (CRI). This measures the percentage change in reliability since the last year of Control Period 5. Despite good delivery of renewal works, asset reliability has reduced since the start of the year. Network Rail hit its internal target for four of the regions, but missed it for Eastern – where track and overhead line failure rates have been high.

2.41 Network-wide reliability has been worse than planned for track, electrification, earthworks and telecoms assets. The number of failures of electrical power assets increased during 2019-20, with more failures that impacted train performance. There were particular issues in North West & Central and Eastern regions where the design of overhead line assets makes them more susceptible to weather-related failures.

Figure 2.8: Asset reliability (composite reliability index, CRI) by region, 2019-20



Source: ORR analysis of Network Rail data

- 2.42 As well as renewing the network, it is vital that Network Rail carries out essential inspection and maintenance work to identify and rectify defects and failures in a timely way. Network Rail must improve its reporting of maintenance delivery to demonstrate that it is managing asset defects and carrying out routine work effectively. Data concerns are set out in more detail below.

Network Rail must continue to develop network resilience

The rail network is suffering more delays due to severe weather. Network Rail must progress its work to develop more robust resilience plans to mitigate against climate change and severe weather.

- 2.43 In PR18, we set a requirement for regions to deliver updated weather resilience and climate change adaptation (WRCCA) plans by August 2019, in order to improve management of the impacts of climate change on railway infrastructure.
- 2.44 In 2019-20, there has been a greater number of severe weather events causing performance issues on the railway. For example, the summer of 2019 saw very high temperatures at the end of June and July, which caused overhead lines to fail. There were widespread flooding events in October and November, and again in December, which caused disruption. February saw significant disruption on the network from storms Ciara and Dennis, and it was the wettest February in the UK since records began. These events highlight the need to ensure the network is resilient to severe weather and to plan for the likely increase in severe weather due to climate change.
- 2.45 All of Network Rail's regions have included resilience measures in their plans for CP6. Generally we found that these investments are focussed on recovery of work deferred from CP5 (earthworks, drainage and structures) and on high priority interventions to manage safety and performance risk. We found less focus on more strategic plans to address longer-term resilience.
- 2.46 The suite of WRCCA plans should provide this more strategic focus. To date, only North West & Central region, and the South East and Wales routes have published their completed plans. This falls short of our expectations. Network Rail also identified completion of milestones within these plans as a key performance indicator for CP6 environmental sustainability – emphasising the need for them to be completed.

Asset management data and reporting must improve

- 2.47 High quality asset data is essential to the development of robust plans for maintaining and renewing the network – to ensure safety and protect train performance. In CP6 we expect Network Rail to maintain its focus on achieving high quality data for all business critical assets¹⁴.
- 2.48 Network Rail has been developing central governance arrangements and processes to drive data quality improvements throughout CP6, including maintaining oversight of regions' improvement plans. It has developed new minimum asset data requirements to ensure that asset data are suitably accurate and up-to-date. These are positive developments.
- 2.49 We continue to be concerned about Network Rail's quality assurance for its reporting of maintenance and renewals work. We have found many inaccuracies in its reporting of maintenance and renewal volumes, requiring corrections to be made. We have highlighted our concerns through our engagement with the company on its reporting statements and business plans.
- 2.50 We expect Network Rail to be able to provide clear management reports (such as summary dashboards, written explanations and change logs) which give assurance that its management has the tools and processes to quality assure its data and identify issues and non-compliances. We have found particular weakness in the company's reporting of maintenance volumes which are presented in large data files with limited analysis to provide intelligence. Network Rail is aware of this issue and has started development of reporting dashboards. Further improvements are needed in this area.
- 2.51 As discussed previously, we have set an asset sustainability target for each region using the Composite Sustainability Index (CSI).
- 2.52 In PR18, we recognised that the CSI measure proposed for CP6 had limitations, in that it does not encompass all assets and all their attributes, but takes a representative sample. We said that Network Rail must provide a plan for development of an alternative measure and then implement it. Network Rail has produced initial thinking on how CSI might be improved, but further refinement and benchmarking are required to show that the proposals are the most suitable way forward.
- 2.53 Progress has been slower than we would like. If Network Rail is unable to develop an appropriate measure within an acceptable timeframe, we will consider using an independent reporter to develop a measure on its behalf.

¹⁴ We expect Network Rail to achieve an asset data quality score of 'A2' indicating strong processes and a high degree of accuracy

Safety on the network needs continued focus

It is vital that Network Rail protects the safety of passengers and those that work on the railway. Safety on the rail network remains good overall – we have one of the safest railways in the world. But the tragic deaths of two workers in July 2019 and a further fatality this year clearly show that more must be done.

2.54 Our full reporting of health and safety on the rail network is in a separate publication: ORR's 'Annual health and safety report' to be published this summer. An overview of safety performance is given below.

Passenger and public safety performance was good in 2019-20, but risks need careful management

2.55 Passenger and public safety on the rail network remains good. All regions performed strongly against their scorecard measure of passenger train accident risk reduction.

2.56 Level crossings are a high risk area. Nationally, Network Rail closed 77 level crossings in 2019-20 and met its target for milestones to reduce level crossing risk. At a regional level, Eastern and Southern met or exceeded their targets while the other regions fell short.

2.57 There have been two fatalities this year at level crossings which is the equal lowest number on record. Modelled risk at level crossings (as measured by the All Level Crossing Risk Model) rose over the year. Pedestrian crossings (such as footpaths) are an area of concern but we are pleased with Network Rail's plans to strengthen arrangements at passive crossings which it published in its long-term strategy.

2.58 2019-20 saw the lowest number of trespass fatalities for 10 years, and the number of reported trespass incidents was lower than the previous year. We are monitoring this closely to understand the impacts of any behavioural change during the coronavirus pandemic.

2.59 We assess Network Rail's health and safety management maturity using the Risk Management Maturity Model (RM3). In 2019-20 we found that its maturity was primarily at the managed and standardised levels¹⁵. The framework set by central functions is often more mature than the delivery of rules, standards and programmes by regions. Our assessment this year found that Network Rail is showing greater consistency in its assessed maturity levels – with fewer extremes in the range of levels than in previous years. For Network Rail's maturity to improve further, regions need to own the risk control framework more fully.

2.60 There is increased pressure on the rail network, including from higher passenger numbers, more train services, more bad weather events and introduction of new technologies – so risks are changing.

¹⁵ Maturity is measured on a five point scale: ad-hoc, managed, standardised, predictable, excellence

- 2.61 The overall level of modelled risk on the network has increased. This is mainly due to earthworks failures caused by more frequent and severe weather events. Network Rail has plans to address climate change but these events indicate that they are not keeping up with the pace of change.
- 2.62 The overall level of risk from Signals Passed at Danger (SPAD) stopped rising at the end of the year – a welcome improvement after 12 months of increasing risk. But this year also saw the highest number of SPADs recorded since 2004-05, increasing by around a fifth compared to 2018-19. The increase was driven by lower-risk SPADs (the number of highest-risk SPADs fell slightly compared to the previous year). Our inspections suggest driver performance was an issue, so we have been working with train operators to review incidents and look for possible mitigations.

Track worker safety must improve – Network Rail is responding positively to the challenge

- 2.63 Tragically, two rail workers lost their lives in South Wales in July 2019 and there has been a further fatality this year. The industry must make sure it learns lessons to prevent this happening again. We are working closely with Network Rail on its response, including its Track Worker Safety Task Force.
- 2.64 ORR has issued two national improvement notices concerning track worker safety. The company is responding positively, but with variation between regions. Eastern is most advanced in its response. We are encouraged by the resources and senior-level commitment Network Rail has put into its improvement programme since our enforcement action, but the progress we have seen on the frontlines is variable.
- 2.65 Measures of worker safety – the lost time injury frequency rate (LTIFR) and fatalities and weighted injuries (FWI) – show an improvement in 2019-20 compared to the previous year. But Network Rail missed its internal target for LTIFR. Southern exceeded its internal target, Eastern was on target, and the remaining regions performed poorly against their targets.
- 2.66 Our inspections have shown that Network Rail's leadership on occupational health and wellbeing has strengthened and collaboration with the wider industry on control of silica dust and diesel exhaust emissions has improved. There has been a significant reduction in the number of reported Hand Arm Vibration Syndrome cases. We are pleased with progress this year on asbestos management but it has taken too long for Network Rail to become legally compliant.
- 2.67 We have investigated a significant number of electrical safety incidents this year. These have shown weaknesses in Network Rail's risk control and raised concern over legal compliance. We are encouraged by the resource and level of governance that Network Rail has committed to the Electrical Safety Delivery Programme. However, we are concerned by the level of confusion and non-compliance our inspectors have seen during their inspections.

Network Rail has improved its financial performance and efficiency

Network Rail must deliver its work efficiently – to give the best outcomes for taxpayers' and customers' money. It has beaten its target for efficiency savings – a significant turnaround from poor financial performance in recent years.

2.68 This section examines Network Rail's efficiency and wider financial performance in 2019-20. This analysis is based on draft financial information provided by the company. Network Rail is subject to the governments' budgetary processes and there are restrictions on how much funding can be moved from year to year. We will report more fully on efficiency, financial performance and compliance with budgetary flexibility limits in our annual efficiency and finance assessment which we expect to publish this summer.

Improved financial performance

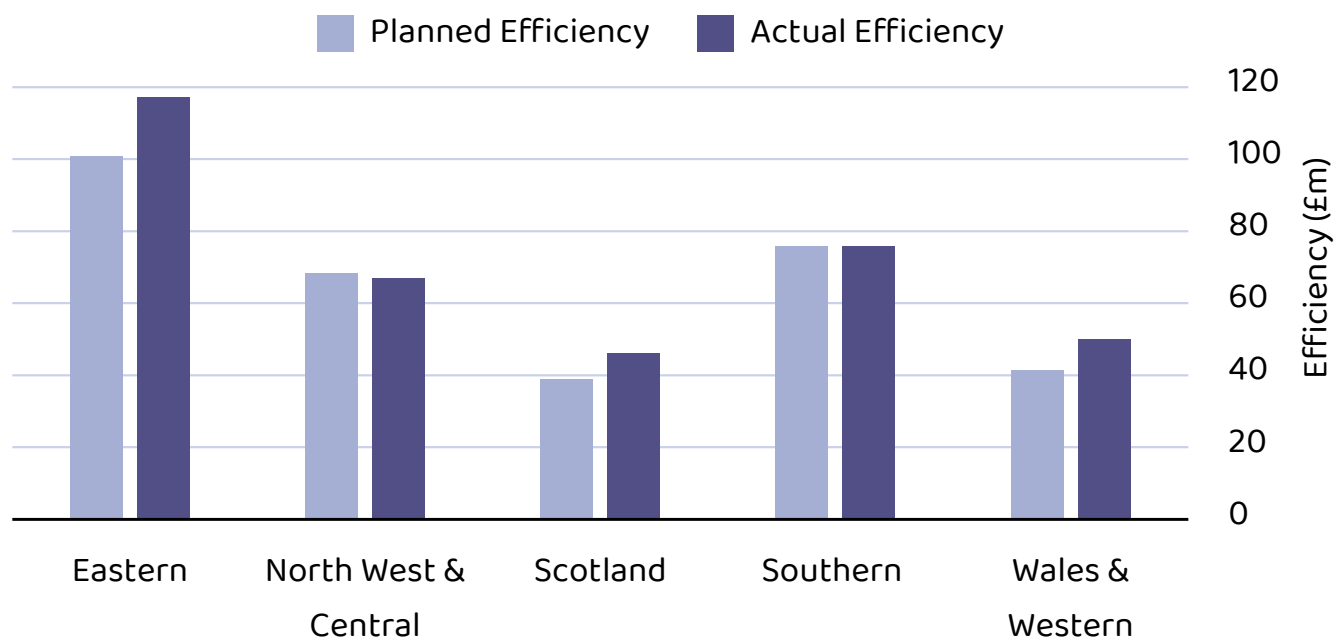
2.69 Overall, Network Rail outperformed its CP6 delivery plan by £10m in 2019-20 – a significant turnaround from its financial underperformance in CP5. This was mostly due to better than planned efficiency savings on its operations, support, maintenance and renewals activities. The company has reported £385m of efficiency, ahead of its £316m commitment.

2.70 However, in England and Wales enhancements underperformed by £94m (which equates to 5% of additional expenditure on enhancements). This was mostly due to cost increases on the Great Western Electrification Programme and Crossrail which Network Rail has attributed to an increase in anticipated final costs because of overruns and disputed costs. Although we require Network Rail to report the financial performance of its enhancements, we are not currently responsible for monitoring its efficiency in enhancements in England and Wales. Financial performance on enhancements in Scotland was better. Network Rail financially outperformed on projects such as the Highland Main Line, New Down platform works in Dunbar, Edinburgh to Glasgow Improvement Programme, and Aberdeen to Inverness improvements.

Improved efficiency

2.71 Network Rail has committed to deliver £3.5bn of efficiency in CP6. As set out above, it has delivered £385m of efficiency savings in 2019-20, exceeding its plans to deliver £316m. This is a good start to delivering its CP6 target.

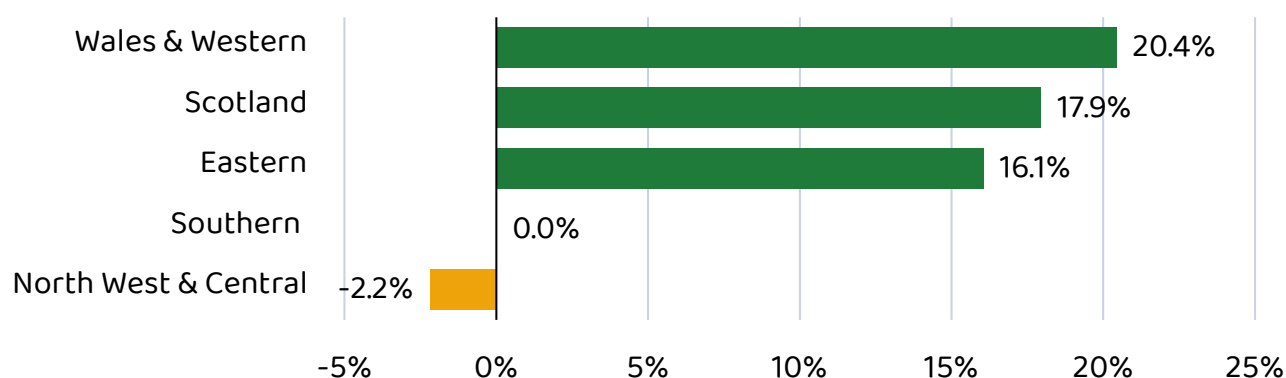
Figure 2.9: Regional contributions to efficiency, 2019-20



Source: ORR analysis of Network Rail data

2.72 Eastern, Network Rail Scotland and Wales & Western all exceeded their efficiency plans in 2019-20, with Eastern delivering the largest efficiency savings. Southern met its efficiency target. North West & Central delivered slightly less than planned.

Figure 2.10: Efficiencies – variance of actual to plan, 2019-20



Source: ORR analysis of Network Rail data

- 2.73 Efficiency has come from a wide range of initiatives which are being closely monitored across the regions. For example, Network Rail has gained substantial efficiency from adopting better procurement practice and from involving delivery contractors early in the design process. This helps to make sure that designs are optimised for efficient delivery.
- 2.74 Network Rail's National Functions delivered £70.4m of efficiency savings, outperforming its delivery plan target of £50.9m by £19.5m. Efficiencies came from sources including improved contracting strategy and organisational restructure. Further detail on regional efficiencies is provided in the regional chapters.

Efficiency planning has improved but more needs to be done

- 2.75 While efficiency delivery in 2019-20 was good, Network Rail needs to retain its focus to make sure it continues to deliver over the control period. Its efficiency planning for CP5 was poor, which led to poor efficiency outcomes. So, in the lead up to CP6 and during 2019-20 we have applied great focus on Network Rail's efficiency plans.
- 2.76 Where we previously expressed concerns about the different levels of maturity and uncertainty in routes' CP6 efficiency plans, Network Rail has responded by producing an efficiency improvement plan. It has also supported an independent reporter review of routes' renewals and efficiency plans for the first two years of CP6. We reported on this in December¹⁶ and since then we have seen a continued effort to improve route and region efficiency plans.
- 2.77 But more needs to be done, particularly in relation to the quality of renewals plans – which will be critical to delivering the renewals volumes and the full committed efficiency over the control period.
- 2.78 We are also monitoring a wider range of leading indicators to understand Network Rail's readiness to deliver its future workbank.
- 2.79 These show progress in developing the renewals workbank for 2020-21. For example, 82% of remits for planned renewals have been accepted by the supply chain. But the percentage of bookings for engineering works in 2020-21 (76%) is behind Network Rail's internal target (93%) and lower than last year. The percentage of renewals projects (by value) that have completed detailed designs and received financial authorisation for delivery (69%) is also behind its internal target (83%). Both these measures show a risk to efficient delivery in 2020-21.

¹⁶ ORR letters on Network Rail's preparations to deliver efficiently in CP6: <https://orr.gov.uk/rail/economic-regulation/regulation-of-network-rail/monitoring-performance/efficiency-and-finance-assessment>

Figure 2.11: Leading indicators of efficiency planning in 2020-21

Route/ Region	Renewals Planning		Securing Engineering Access			Maintenance requirement 2020-21			
	Work authorised in Oracle		Target	% of required access booked		Target	Current headcount		Target
National/ GB	69%	<div></div>	83%	76%	<div></div>	93%	95%	<div></div>	99%

Source: ORR analysis of Network Rail data

- 2.80 Network Rail's analysis of leading indicators was undertaken before the coronavirus pandemic. There will be disruption, particularly to renewals delivery and related efficiencies during the first few months of 2020-21.
- 2.81 Over the coming year we will continue our work reviewing Network Rail's efficiency planning and delivery, including wider leading indicators of readiness. We will report on this in due course.

There has been a good start to delivery through the research and development fund

- 2.82 Network Rail has a £245m fund for carrying out research and development (R&D). It has made good progress in 2019-20 – both in managing a portfolio of projects and driving them forwards. During the year, Network Rail has spent £30m (in line with its plan), and commenced approximately 100 projects. Planned expenditure for 2020-21 and the remaining years of CP6 is significantly higher, so continued effort is required to deliver over the control period.
- 2.83 Ultimately, the success of the fund will depend on developing ideas into products that help Network Rail become more effective or efficient. The research and development programme finishes at concept demonstration and there is still a critical gap in the development and roll-out of solutions which the company must resolve.
- 2.84 It also needs to find an appropriate way forward, working with suppliers, to resolve questions of intellectual property rights on the work done.

Network Rail's performance data and reporting must improve

- 2.85 One of the primary ways in which Network Rail reports its performance is through its scorecards. It has published its scorecard results in its Interim Business Performance Report and expects to in its Annual Return.
- 2.86 However, we consider that their usefulness to us during the year has been undermined by data quality issues, accessibility and issues with metric definitions / clarity.
- 2.87 One of our key concerns has been the lack of robust quality assurance which has led to errors and inconsistencies presented in the scorecards each period. This has made it difficult for us to understand performance. Also, Network Rail has not consistently followed the change control procedure set out in our Managing Change Policy.
- 2.88 We have raised these points with Network Rail. It has also highlighted that there is a need to balance the level of assurance of its regular in-year reporting with how quickly it is provided, and we recognise this. Even so, it must continue to improve its quality assurance and communication, so that issues are flagged and rectified, and our concerns are responded to in a timely way.
- 2.89 We expect to use our independent reporters to assess Network Rail's production of and reporting against scorecards, and to assess the data quality of key regulatory measures (e.g. CRM-P and FDM-R) in the coming year.

Some progress has been made in delivering a digital railway

- 2.90 Network Rail has a long-term programme to deliver a digital railway (including digital signalling and radio communications) to improve railway operations. It has made significant progress in 2019-20, building on the Department for Transport's commitment of funds to fit digital (European Train Control System) signalling on the East Coast Main Line (South). The project team has established strong working relationships with all the involved duty holders who need to be ready for the first section of line to have conventional signals removed in 2024.
- 2.91 During PR18, Transport Scotland requested a specific digital rail strategy for Scotland. This was because it had little confidence that Network Rail Scotland's signalling strategy for CP6 adequately reflected the Scottish Government's strategic priorities. In response we required Network Rail Scotland to create a long term, whole system signalling strategy for Scotland. We provide an update on the progress of that strategy in Chapter 5.



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