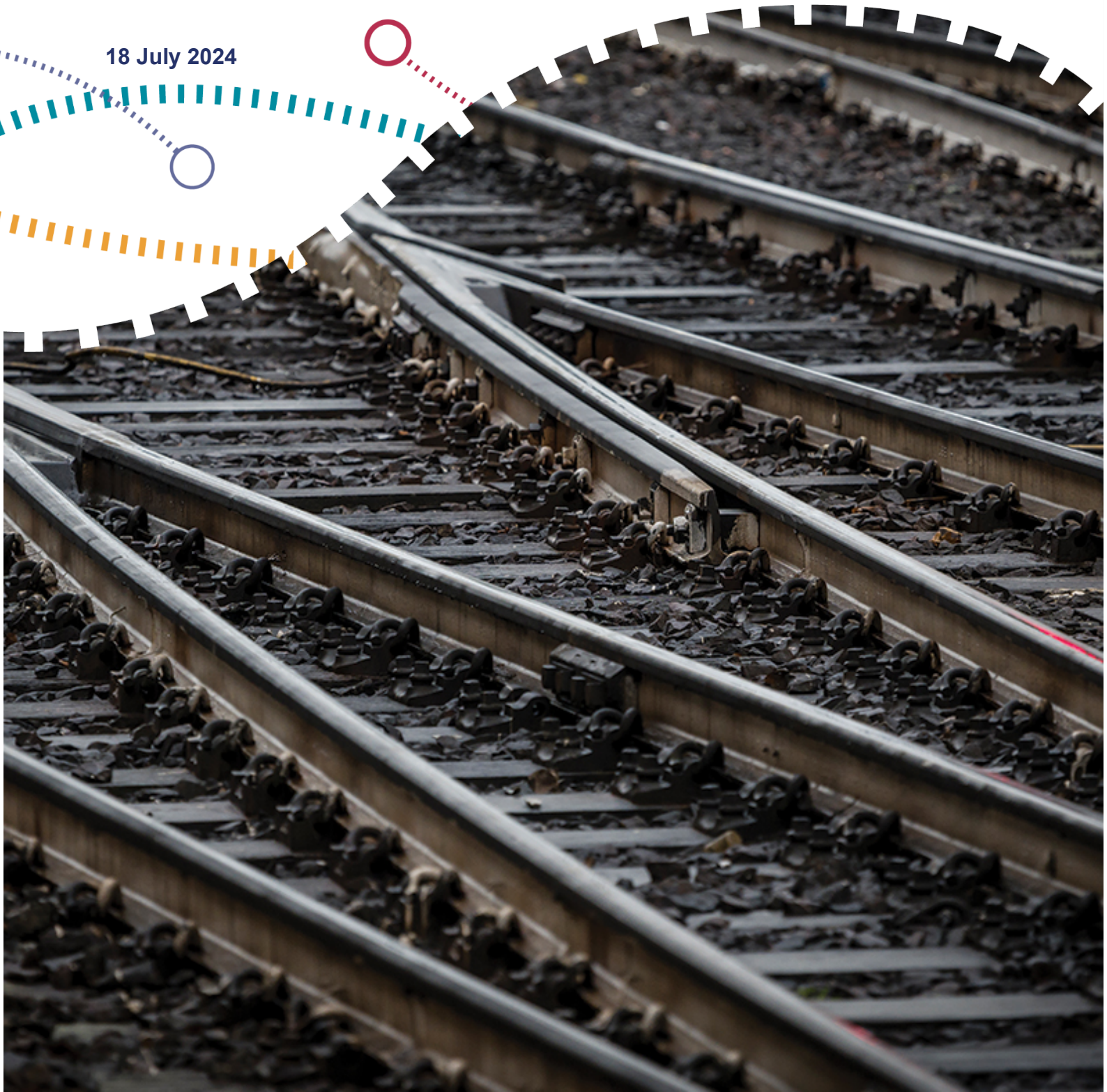
OFFICE OF RAIL AND ROAD

Annual Assessment of Network Rail 1 April 2023 to 31 March 2024

18 July 2024



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Executive summary

1. The Office of Rail and Road (ORR) holds Network Rail to account for its management of the rail network in Great Britain. We monitor how it operates the network to keep trains running on time and how it keeps the network safe and in good condition.

2. This report is our 'Annual Assessment of Network Rail'. It sets out our views on Network Rail's performance between 1 April 2023 and 31 March 2024, the fifth and final year of control period 6 (CP6) which began on 1 April 2019 and ended on 31 March 2024. It is referred to as 'Year 5' throughout this document.

3. This assessment reviews Network Rail's network-wide performance. We separately report in detail on health and safety performance in our 'Annual report of health and safety on Britain's railways'. Network Rail must deliver high quality stakeholder engagement to support all its activities. We will publish our full assessment of Network Rail's stakeholder engagement this autumn.

4. This report includes separate annexes which review the performance of Network Rail's regions and its System Operator function, including how it performed for freight and national passenger operators. We also include an annex on the performance of the Wales and Borders route, presented in both English and Welsh.

5. Our key findings are set out below:

Following a period of declining train service performance, Network Rail implemented regional improvement plans and performance largely stabilised barring the effects of a severe autumn and winter period. However, performance in Wales & Western continued to deteriorate to unacceptable levels and following an investigation we found Network Rail in breach of its network licence.

6. Train reliability and punctuality largely stabilised during the year, but at levels that offer significant scope to improve services to passengers. During the year, the percentage of trains that arrived on time fell from 67.8% to 67.6%. Train cancellations remained level at 3.8%.

7. Total Network Rail-attributed delay minutes per 100 km of train travel increased during the year from 1.97 to 2.06 nationally, but trends varied across the regions. The largest national factor for increasing delay was the network's ability to cope with a severe autumn and winter period. Despite its delivery of an improvement plan,

performance continued to decline in the Wales & Western region and we initiated a formal investigation in November 2023. Since the year end, the investigation has concluded and we have found that Network Rail is in breach of its network licence as it is failing to achieve to the greatest extent reasonably practicable its obligations to secure the operation and maintenance of the network in the Wales & Western region in accordance with best practice. We have issued an order, requiring Network Rail to produce, by 31 August 2024, a robust and evidenced plan identifying the further activities it will undertake to improve performance in the Wales & Western region.

8. Network Rail's other regions responded to lower performance levels by setting out detailed performance improvement plans. We held the regions to account for delivering the actions in these plans and Network Rail has provided evidence that individual schemes are delivering improvement.

9. Delay in these regions stabilised with signs of improvement in the first half of the year. This improving trend continued in the Southern Region. However, North West & Central and Eastern regions eventually saw a worsening of delay following a windy and exceptionally wet autumn and winter. Network Rail Scotland's delay level showed initial improvement but declined slightly over the full year. As well as weather-related delays, the regions (other than Southern) also saw more delay attributed to non-track assets, such as points and axle counters. Other issues which are outside Network Rail's control affected train performance during the year, such as industrial action by train operators' staff.

10. Network Rail must ensure the regional plans are reviewed regularly and remain focused on the right interventions. We will continue to scrutinise the governance of the plans and delivery of the actions in them and will intervene where we are not satisfied with the progress made. Performance must remain a priority for Network Rail in control period 7 (CP7) between 1 April 2024 and 31 March 2029, for both passengers and freight.

11. Network Rail has continued to demonstrate its commitment to leading whole industry performance management capability. Following ORR's 2023 review of the Joint Performance Strategies, in which we found them to be generally well-prepared, Network Rail has used the Performance Improvement Management System (PIMS) Governance Board to lead a peer review of their practical implementation. This was completed in late 2023, highlighting to routes and operators the strengths and opportunities to improve maturity levels across twelve separate categories. The process will be repeated in 2024 and is expected to focus substantially on implementation of lessons identified.

12. However, we have concerns about Network Rail's ability to consistently roll out examples of operational good practice across its devolved regions. This drives inefficiency and can slow progress, as each region develops its own solution to common/similar problems. This must be a renewed area of focus given the financial constraints and difficult choices to be faced in CP7.

Freight performance improved steadily over Year 5 following a particularly poor start. However, delays related to asset reliability continued and Network Rail must make improvements in this area. Network Rail must also be clearer about the roles the regions and the System Operator play in improving freight train performance.

13. Freight train performance improved steadily over the year following a period of widespread cancellations and late-running services. The moving annual average (MAA) percentage of commercial freight services arriving at their planned destination within 15 minutes of booked arrival time steadily improved from its lowest level (85.1% in May 2023) to 90.3% at the end of the year.

14. Freight cancellations ended the year at 1.78%. This was slightly worse than the Network Rail scorecard target of 1.68%. The main causes of freight cancellations were asset failures across the network, other significant incidents (for example the closure of Nuneham Viaduct) and severe weather.

15. Network Rail's regional performance improvement plans have delivered benefits during the year, and we have seen evidence of the System Operator collaborating with the regions and industry to achieve improved performance (e.g. through the Mendip Rail timetable change in Wales & Western region). However, we have yet to see consistent evidence of leadership by the System Operator and regional freight performance remains mixed. In December 2023, we wrote to Network Rail to explain that we required accountabilities and responsibilities for freight within Network Rail to be much clearer as we start CP7, particularly the respective roles of the regions and the System Operator. That clarity is essential for assurance that the required performance improvement activities are being delivered. Network Rail has made progress to address our concern through the System Operator's work to develop national strategies for freight performance and growth for CP7. We have also worked closely with the regions to better understand their action plans and to agree how we will monitor them. We will maintain a close watch on progress and intervene if required.

16. We closely monitored the freight team in the System Operator as it developed its freight growth plans for CP7. We saw evidence of the team engaging with and providing leadership to the regions in developing growth plans. For example, it

developed a National Freight Performance Strategy for CP7 to act as a framework for the regions' plans. The strategy includes initiatives to be delivered in collaboration with freight train operating companies (e.g. best practice agreements for third party connections to the network). We have seen this approach featuring as part of the regions' plans and we continue to engage with the System Operator and regions as they develop the actions needed to deliver on them in CP7.

Network Rail delivered its efficiency plans for the year and achieved its target of £4.0 billion of savings for CP6 overall. Wider financial performance declined in the year, in part due to performance-related compensation payments to train operators. Network Rail must now focus on delivering efficiencies in Year 1 of CP7 and over the course of the control period.

17. Network Rail reported £1,116 million of efficiencies in Year 5, an 18% increase on the previous year. Despite the challenges it has faced over CP6, notably the pandemic, extreme weather conditions, industrial action and inflationary pressures, Network Rail successfully delivered its cumulative revised efficiencies target of £4.0 billion of savings over the control period. This has been achieved through several initiatives including making better use of in-house skills, improving the efficiency of engineering works and changes in the standards governing different aspects of maintenance and renewals activity.

18. However, the regional picture varies. In Year 5, all regions exceeded their original CP6 targets. Southern and Scotland also exceeded their more stretching in-year delivery plan targets, by 4% and 1% respectively. The other regions were slightly short of these stretch targets, largely as a result of delays in workforce modernisation initiatives. Southern outperformed its revised target by 4% following improved contracting strategies and the implementation of new technologies and Scotland outperformed it by 1% as a result of additional pay-related savings and other initiatives performing better than anticipated. Network Rail's National Functions saw efficiency savings of £258 million over the year, exceeding its revised target by 21%.

19. Network Rail Scotland delivered £73 million of efficiency saving in Year 5, exceeding its in-year delivery plan (£72 million) by 1% and our original CP6 target (£67 million) by 9%. It delivered £351 million of efficiency savings over the control period, 1% above its revised CP6 delivery plan (£349 million) and 12% above its original CP6 target (£314 million). Key efficiency savings over CP6 were made in contracting strategies, supply chain management, optimisation of access and workplace reform.

20. Year 5 was the final year of CP6 and Network Rail's leading indicators now focus on its readiness to deliver for Year 1 of CP7 and the remainder of the new control

period. Current indications are that 72% of Network Rail's regional efficiency targets have completed or well-developed plans for Year 1 of CP7, while 28% have only minimal plans in place. Network Rail is working to ensure the plans are robust and achievable. To support Network Rail, we have commissioned an independent reporter to review the robustness of the plans and provide recommendations in less-developed areas.

21. Network Rail reported £479 million of financial underperformance compared to its annual budget in Year 5. This was primarily due to poor train performance resulting in Network Rail making payments to train operators (through the Schedule 8 incentive scheme). Other contributing factors included inflationary pressures and underperformance in renewals, with regions having to reprioritise their workbanks to remain within their overall available funding. This was largely driven by access constraints compared to plan, contractor delivery problems, plant failures and challenging weather conditions.

22. Going into Year 5, Network Rail had no risk funding available to manage unforeseen risks, having used up its CP6 risk funding in the first four years of the control period to manage risks associated with the pandemic, industrial action, severe weather conditions and inflationary pressures. In Year 5, it therefore managed its risk by reprioritising its workbanks and reducing the scope of renewals to manage changes in costs.

Network Rail largely delivered its asset condition target and planned effective renewals volumes. Shortfalls in renewals of structures and track have increased pressures on maintaining and renewing core assets in CP7. Network Rail must continue to improve its asset knowledge, delivering its agreed recovery plan for structures examinations and continuing to improve its management of drainage assets to better address challenges of extreme weather.

23. Network Rail delivered 99.1% of its planned effective renewals volume across its network, just short of its target for Year 5. The delivery of renewals at regional level was varied. Three of its regions significantly exceeded their effective renewals targets but two regions fell short. While Network Rail over-delivered on certain asset groups, effectively offsetting shortfalls in others, renewals of critical assets such as track and structures were under-delivered. This imbalance has led to increased pressure on maintenance and core renewal activities, which will carry over into CP7.

24. The Composite Sustainability Index (CSI) metric is a high-level indicator of the overall condition of assets. It shows the percentage improvement of asset sustainability in comparison to the end of Control Period 4 between 1 April 2009 and 31 March 2014

(CP4). Network Rail ended CP6 with a CSI of −1.2%, which was 0.4 percentage points (pp) above its target.

25. Asset reliability, as measured by the Composite Reliability Index (CRI), for Scotland, Wales & Western, Southern and North West & Central regions finished below target. Despite this Southern and North West & Central region's saw an improvement in CRI over the last year. Eastern region's CRI also improved in Year 5 and finished above its target. Reliability was notably poor in Wales & Western, which underperformed across nearly all key asset areas. Track and electrification asset failures were significant contributors to this and were a key focus of our investigation and its recommendations.

26. Network Rail remains behind on its structures examinations in all regions. This shortfall may lead to the potential for undetected faults which could have safety and/or performance impacts. In May 2023 we wrote to Network Rail setting out our continuing concerns and underlining the potential for regulatory action. In response, Network Rail's regions submitted recovery plans aimed at returning to compliance. We undertook a detailed assurance review at the end of the year and found that none of the regions had fully achieved their planned of examinations in line with their recovery plans. North West & Central and Southern regions had the higher discrepancies against their forecasts. We are therefore extending our enhanced monitoring and will reassess at the end of 2024.

27. Following the tragic events at Carmont in August 2020 and the subsequent reports from Lord Robert Mair and Dame Julia Slingo, improvements to the management of drainage assets has been a key focus. We have consistently challenged Network Rail to improve its asset knowledge and drainage management plans. It has improved its knowledge of drainage assets but two regions, Eastern and Southern, did not manage to complete their drainage asset registers before the end of CP6 as had been agreed with ORR. Network Rail's regions also need to ensure that they manage their resources to carry out drainage inspections and maintenance effectively. Southern subsequently completed its full asset register in May 2024 and Eastern did so in June 2024.

Network Rail missed its national environmental target. It performed well against its waste management and carbon emissions reduction targets but fell short of its targeted 18% reduction in non-traction energy usage. It must now make improvements to support delivery of its environmental targets in CP7.

28. We measured Network Rail's environmental performance during CP6 using a composite measure called the Environmental Sustainability Index (ESI) which covers waste, carbon emissions and reduction in non-traction energy usage.

29. Network Rail missed its national target for ESI. For waste, it exceeded its target for reusing or recycling waste, achieving 93.5% against a target of 90.0% and narrowly missed its target for diverting waste from landfill (by 0.1pp). While performance was above target for reducing non-traction carbon emissions, it was below target for reducing non-traction energy use.

30. North West & Central was the only region to exceed its annual ESI target. Wales & Western, Eastern, Network Rail Scotland, and Southern failed to achieve their overall ESI targets, with Eastern showing the worst performance, not meeting targets for any of the component measures of ESI.

31. We require Network Rail's regions and Route Services to provide evidence of how they will deliver improved environmental performance in CP7.

Network Rail's System Operator managed timetable risk effectively. It must continue to improve its management of critical industry processes and delivery of major projects.

32. The System Operator successfully delivered two major timetable changes (though the May 2023 change was marked by very late capacity applications from two operators and a region) underpinned by continuing effective risk management by the Industry Timetable Assurance Project Management Office (PMO). Over the last year we have intervened several times in track access application cases where the process appeared to lack robustness and coordination. We commissioned an independent reporter review in Year 5 which made recommendations on how to improve the process and we are following these up.

33. We have worked closely with the PMO during the year to collate and present improved information concerning the status of train operators' access rights ahead of timetable changes. The PMO is now reporting more accurately on risks associated with rights not being in place in time. We have also seen evidence of the System Operator strengthening how it holds train operators and its regions to account for

adhering to timetable production rules. We welcome the ongoing focus on achieving Network Code timescales for timetable production by December 2024.

34. The East Coast Main Line (ECML) timetable change, an extensive and complex recast needed to realise investment in infrastructure, was deferred for the fourth time because the PMO identified significant performance and delivery risks which had not been closed out during the advance planning process.

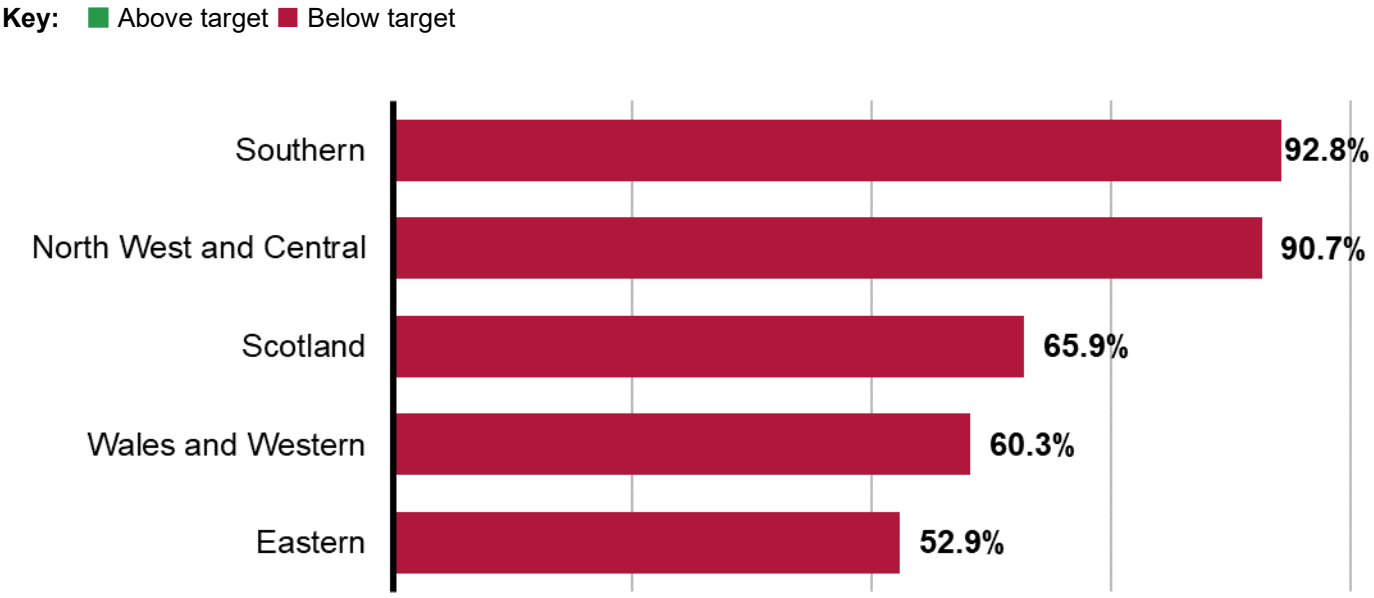
35. The PMO was transparent to stakeholders over the risks to performance and the System Operator led good, collaborative work across industry to resolve conflicts. It is now critical that wider lessons are learned by the industry, for both the eventual implementation of change on the ECML and for the planning of future major changes.

36. The System Operator had planned to deliver a number of significant projects in Year 5 but delivery has not progressed as planned in some important areas including the Industry Timetable Technical Strategy (ITTS). For ITTS, in Year 5 of CP6 and into CP7, the System Operator has adopted a more targeted approach through a series of smaller IT projects supporting timetable production and capacity planning with shorter delivery times and benefits now clearly defined.

Comparison of regional performance

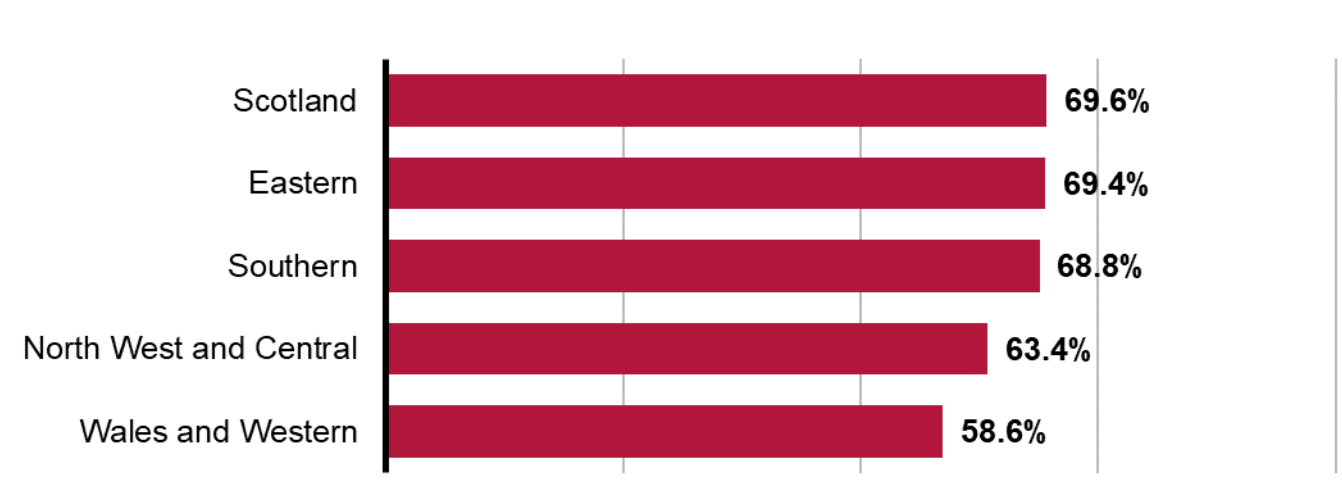
37. A summary of key measures comparing regional performance in Year 5 is shown in charts below (note that each chart uses different scales). Please refer to the individual region annexes for commentary on each region's performance.

Figure 1. Overall scorecard performance by region, annual data, April 2023 to March 2024



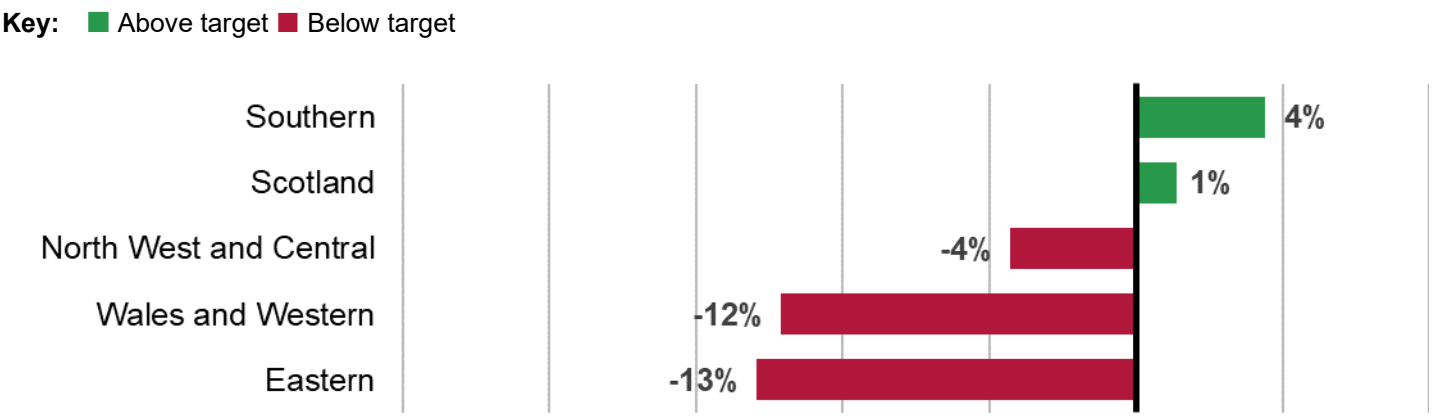
Source: Network Rail's regional comparison scorecard

Figure 2. On Time by region, annual data, April 2023 to March 2024



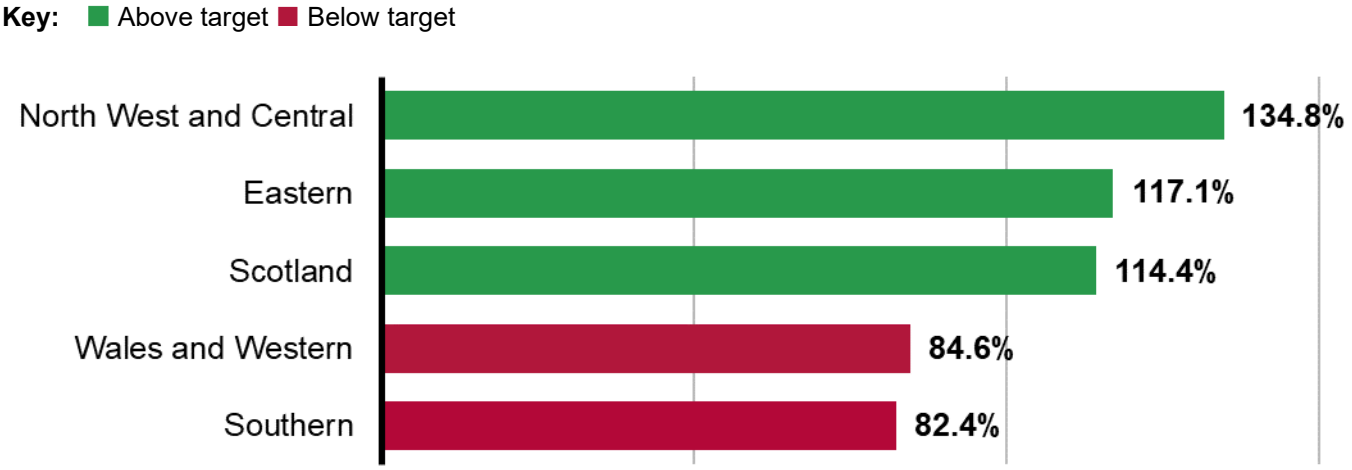
Source: ORR analysis of Network Rail data

Figure 3. Efficiencies by region, variance of actual to revised delivery plan, annual data, April 2023 to March 2024



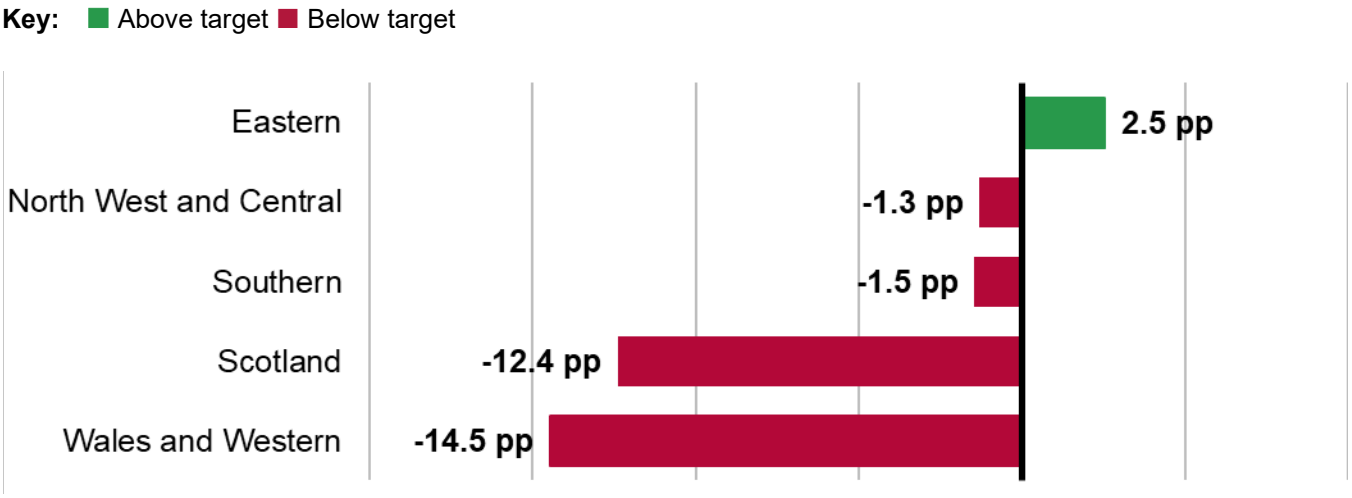
Source: ORR analysis of Network Rail data

Figure 4. Effective volumes (renewals) percentage completion by region, annual data, April 2023 to March 2024



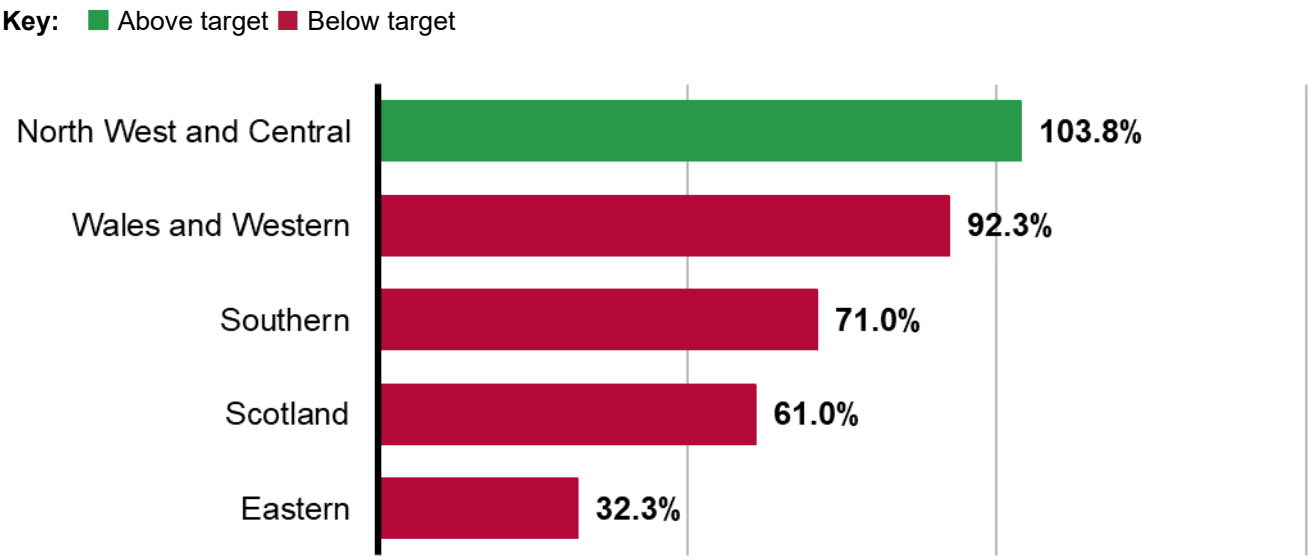
Source: ORR analysis of Network Rail data

Figure 5. Composite Reliability Index (CRI) by region, percentage variance to target, annual data, April 2023 to March 2024



Source: ORR analysis of Network Rail data

Figure 6. Environmental Sustainability Index (ESI) by region, annual data, April 2023 to March 2024

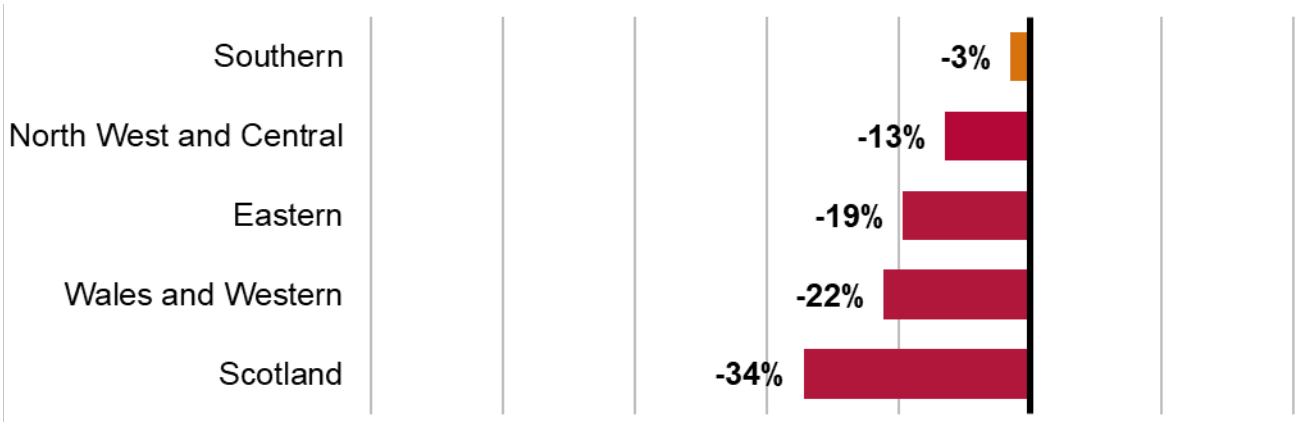


Source: ORR analysis of Network Rail data

Figure 7. Passenger train performance (Network Rail attributed delay minutes normalised, CRM-P), percentage better/worse than target, annual data, April 2023 to March 2024

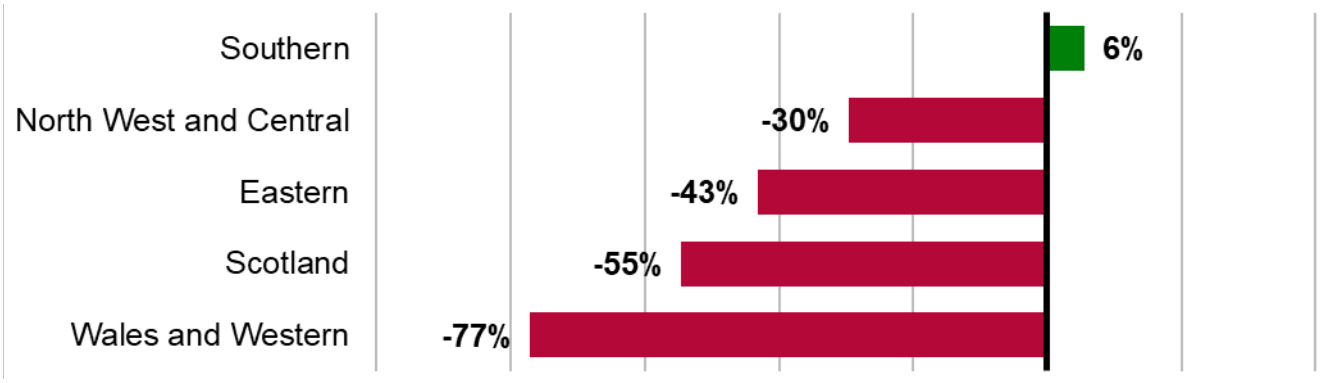
Key: Above target Below target, but above regulatory floor Below regulatory floor

Comparison to scorecard target



Source: ORR analysis of Network Rail data

Comparison to trajectory

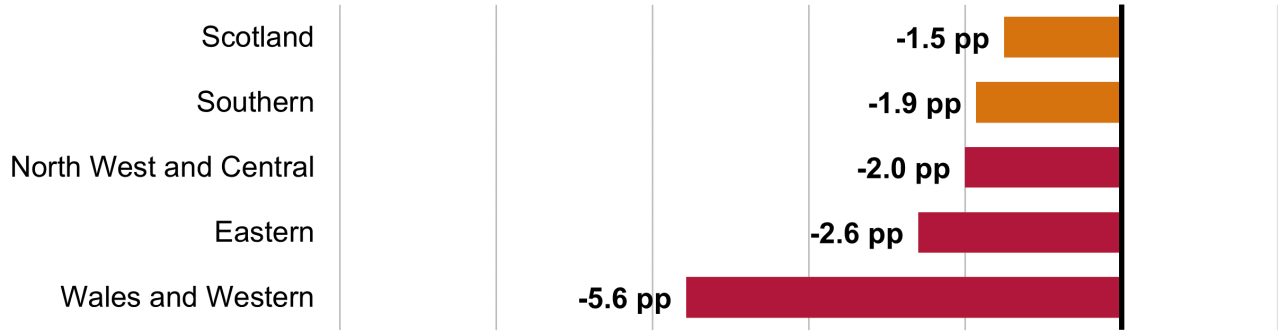


Source: ORR analysis of Network Rail data

Figure 8. Freight performance by region (FDM-R), percentage better/worse than target, annual data, April 2023 to March 2024

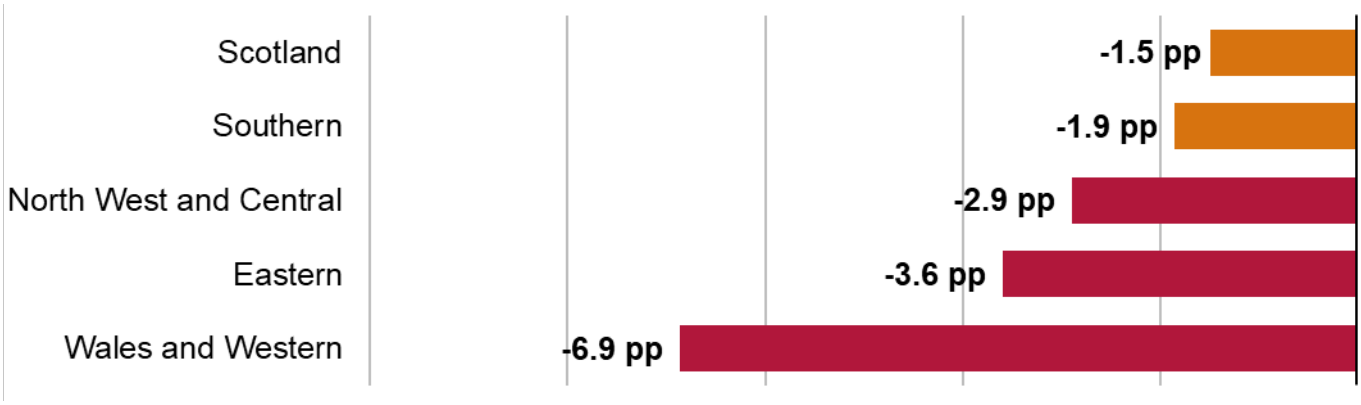
Key: Above target Below target, but above regulatory floor Below regulatory floor

Comparison to scorecard target



Source: ORR analysis of Network Rail data

Comparison to trajectory



Source: ORR analysis of Network Rail data

1. Context

ORR's role

1.1 Our role in the rail sector is broad. We are responsible for:

- regulation of the industry's health and safety performance;
- holding Network Rail and High Speed 1 (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.

1.2 This report is about 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.

1.3 We assess Network Rail's performance in delivering the outcomes that matter to rail users, governments, and taxpayers. For CP6, these are captured in our periodic review 2018 (PR18) final determination, which reflected government's High Level Output Specifications (HLOSs) for the control period, and the obligations set out in Network Rail's network licence.

CP6 has presented several external challenges to Network Rail, especially the coronavirus pandemic

1.4 The pandemic presented significant challenges to Network Rail and the wider rail industry, with a significant impact on annual passenger revenues.

1.5 Network Rail's response to the first lockdown was strong, managing safety and operational risks while introducing a reduced timetable. It also continued to deliver most planned engineering works. Network Rail also successfully delivered an unprecedented number of amendments to the timetable during this period.

1.6 The pandemic affected all areas of Network Rail's business, especially during the second and third years of the control period. There was a stark improvement in passenger train service performance and reduction in asset failures, related to the significantly reduced number of train services and reduction in passenger demand in the first lockdown. However, the pandemic also contributed to additional

financial pressures on Network Rail, such as the cost of protecting staff. The reduction in revenue also highlighted the importance of Network Rail delivering efficiently, to play its part in keeping industry costs down.

1.7 The rail industry started to recover from the pandemic during 2021. However, towards the end of the control period Network Rail also had to manage the impacts of:

- industrial action which diverted management attention and impacted delivery, financial performance and train performance;
- extreme weather including summer heat and flash floods which impacted assets, and disrupted delivery and train performance; and
- financial pressures due to industrial action and high inflation.

1.8 Taking into account these external factors, this has been a challenging five-year period for the rail industry. Where relevant we comment on the impact of these factors throughout the report.

Network Rail's scorecards and reporting

1.9 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. We require Network Rail to include a set of consistent measures on all scorecards to allow comparison between regions.

1.10 Network Rail's regions engage with their stakeholders to understand their priorities and determine the measures and targets to be included on scorecards for the coming year. Targets vary across regions, and some reflect the specific and stretching requirements of Network Rail's funders (most notably in Scotland).

1.11 During the pandemic, Network Rail's performance across a range of measures exceeded target (largely because there were fewer trains operating on the railway).

1.12 While scorecards are a key part of how Network Rail judges its own performance across its business, we draw on a range of wider information and apply greater weight to certain metrics, such as our consistent measures. This approach is reflected throughout this report.

Scottish Ministers' High Level Output Specification (HLOS) requirements

1.13 In PR18, we set a number of requirements specific to Scotland, reflecting what the Scottish Ministers wanted Network Rail Scotland to deliver during CP6. Network Rail Scotland has made good progress with many of these requirements in CP6, but there remain some areas where it did not deliver all requirements, including gauging, passenger and freight journey times and improvements to quality of station services. We present our review of these requirements in Annex C: Performance of Network Rail Scotland.

Document outline

1.14 This document reflects 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 as well as in the Wales & Borders route; and
- performance of Network Rail's System Operator function.

1.15 We have tried to use plain language throughout this document but technical terms have been used in some areas where necessary. The glossary explains the technical terms used.

2. Train service performance and regional comparison

2.1 This chapter reviews overall train service performance across Network Rail's five regions. We assess performance across Network Rail as a whole and compare performance across regions.

2.2 Network Rail's performance in Year 5 was impacted by challenges, including severe weather and inflationary pressures, that impacted train performance, financial performance and asset resilience.

Train service performance stabilised except in Wales & Western and we have taken enforcement action in respect of this region

Following a period of declining train service performance, Network Rail implemented regional improvement plans and performance largely stabilised barring the effects of a severe autumn and winter period. However, performance in Wales & Western continued to deteriorate to unacceptable levels and following an investigation we found Network Rail in breach of its network licence.

Network-wide train performance largely stabilised

2.3 We measure passenger train performance using a range of indicators, but overall train performance is based primarily on two measures, one for punctuality and one for reliability. These are:

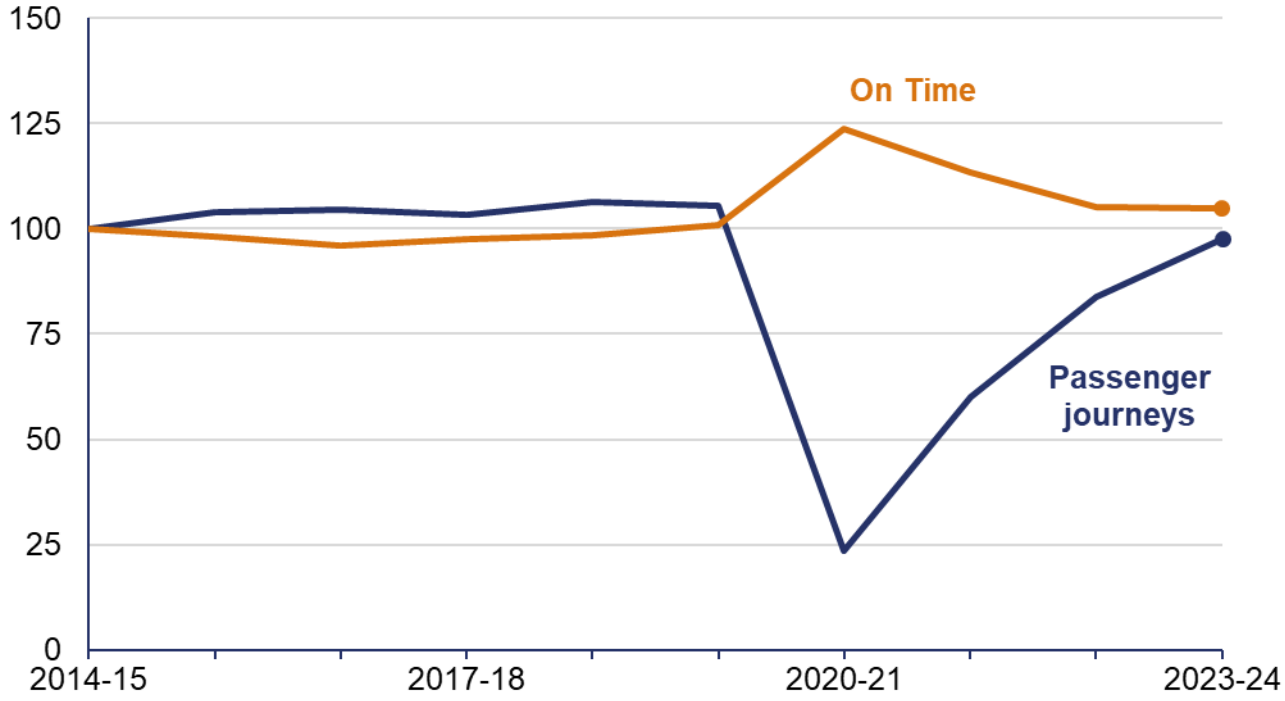
- punctuality: 'On Time': the percentage of recorded station stops arrived at early or less than one minute after the scheduled arrival time (set out in the timetable). A higher On Time score indicates better punctuality; and
- reliability: 'Cancellations': the percentage of planned trains which either did not run their planned journey or did not call at all their planned station stops. This measure is a score which weights full cancellations as one and part cancellations as half. A lower cancellations score indicates better reliability.

2.4 The percentage of passenger trains that arrived on time improved during CP6, from 65.0% in Year 1 to 67.6% by the end of the control period. However, the

proportion of trains cancelled increased (worsened) from 3.4% in to 3.8% during the same period. This does not tell the whole story as there were large variances in performance across the control period and between Network Rail's regions.

2.5 The unique operating conditions created by the pandemic, with significantly decreased train services and passenger demand, helped Network Rail to deliver exceptional performance during Year 2, with 80% of trains arriving on time. There was also improved freight train performance during the year. However, as passengers returned the railway was unable to sustain this level of performance and there was a downturn in years three and four of the control period (see figure 2.1).

Figure 2.1 Passenger journeys and punctuality, Great Britain, annual data, April 2014 to March 2024. Indexed annual data, 100 = 2014-15



Source: ORR analysis of Network Rail and LENNON data

2.6 After a decline in Year 4, passenger and freight train performance largely stabilised in Year 5. However, this was at levels that offered significant scope to improve services to passengers. As shown in Table 2.1, On Time performance decreased by 0.2pp and Cancellations were unchanged. While On Time performance was 2.6pp better than it was four years ago (before the pandemic), Cancellations were worse (up 0.3pp).

Table 2.1 Punctuality and reliability, Great Britain, annual data, April 2023 to March 2024 and comparison with previous years

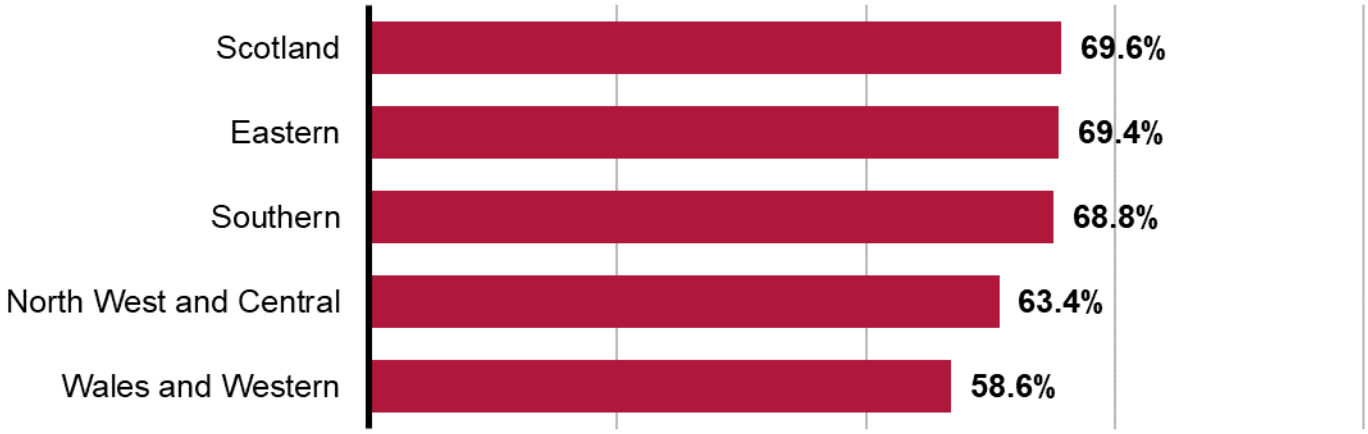
Measure	April 2023 to March 2024 (MAA)	Compared with one year ago	Compared with three years ago (during the pandemic)	Compared with four years ago (pre-pandemic)
On Time	67.6%	▼ −0.2pp	▼ −12.2pp	▲ 2.6pp
Cancellations Score	3.8%	0.0pp	▲ 1.7pp	▲ 0.3pp

Source: ORR analysis of Network Rail data

2.7 On Time performance across the regions varied compared to the previous year. Network Rail Scotland, Southern, and North West & Central's On Time performance improved. Eastern and Wales & Western's On Time performance declined. All regions performed worse than their scorecard targets. Network Rail Scotland had the best On Time performance of all regions at 69.6%.

Figure 2.2 On Time by region, annual data, April 2023 to March 2024

Key: Above target Below target



Source: ORR analysis of Network Rail data

Network Rail's contribution to train performance differed significantly between regions

2.8 We use a range of metrics to assess Network Rail's contribution to overall train performance within the regions but focus on two consistent measures to compare across regions:

- a consistent region measure for passenger services known as CRM-P. This is the delay minutes to in-service passenger trains attributed to Network Rail from incidents occurring in each Network Rail region, per 100 train kilometres. A lower score reflects better performance; and
- a freight delivery metric for each region known as FDM-R. This is the percentage of commercial freight services that arrive at their planned destination within 15 minutes of their booked arrival time, or with less than 15 minutes of delay caused by Network Rail or another operator that is not a commercial freight train operator.

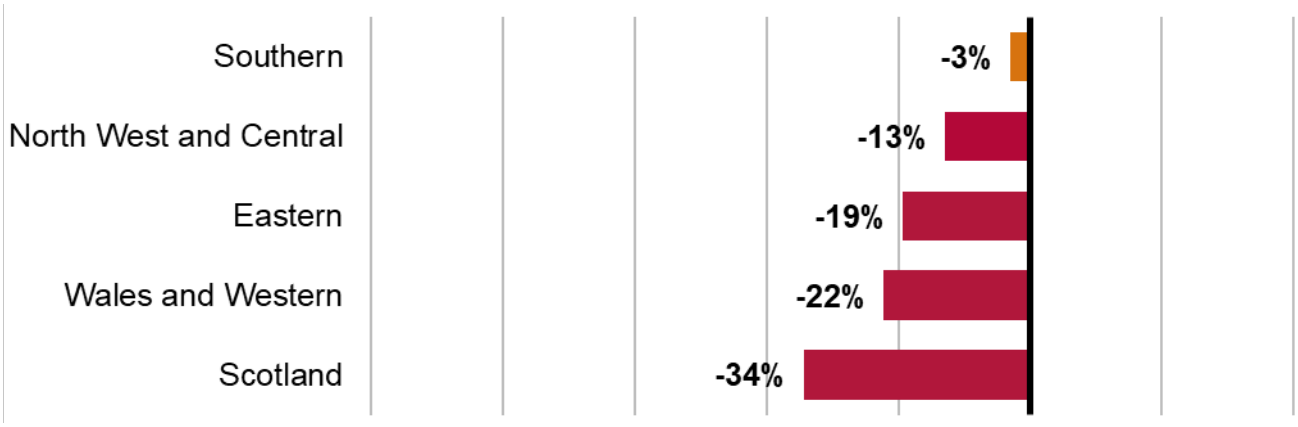
2.9 We monitor delivery of these measures for each region against its CP6 trajectory and a regulatory minimum level of performance, referred to as the regulatory floor (as set in the PR18 final determination).

2.10 Network Rail sets internal CRM-P targets for its regions for the year. It has fallen short of these targets across all of its regions. Southern was closest to meeting its target, missing by 3%. Network Rail Scotland had the largest underperformance against its CRM-P target on its scorecard.

Figure 2.3 Passenger train performance (Network Rail attributed delay minutes normalised per 100 train kilometres, CRM-P), percentage better/worse than scorecard targets, annual data, April 2023 to March 2024

Key: Above target Below target, but above regulatory floor Below regulatory floor

Comparison to scorecard target

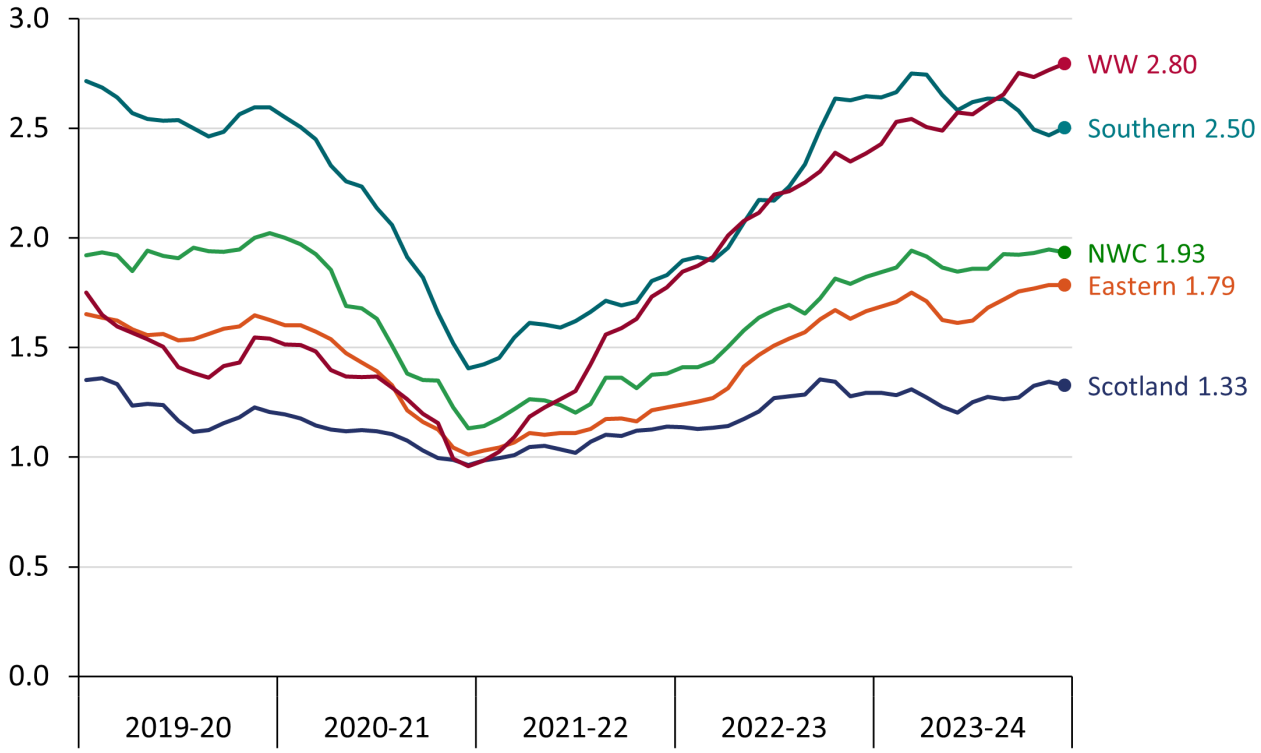


Source: ORR analysis of Network Rail data

2.11 As explained in our previous reports, Network Rail Scotland had the most challenging performance trajectories of all the regions in CP6, reflecting the expectations of its funder, Transport Scotland.

2.12 Network Rail's contribution to train performance varied across the regions during CP6, as shown in Figure 2.4. (As this is a measure of delay, an increase shows a worsening of performance.)

Figure 2.4 Passenger train performance (Network Rail attributed delay minutes normalised per 100 train kilometres, CRM-P), by Region, April 2019 to March 2024



Source: ORR analysis of Network Rail data

2.13 Performance continued to worsen in Wales & Western region and ORR initiated a formal investigation under the network licence in November 2023. Since year end, we have completed our investigation of Network Rail's delivery in that region and found that Network Rail is in breach of its licence. We have issued an order, requiring Network Rail to produce, by 31 August 2024, a robust and evidenced plan identifying the further activities it will undertake to improve performance in the Wales & Western region.

2.14 Other than Wales & Western, performance generally stabilised. Some regions improved over the year, while others declined. Nationally, the network did not prove resilient to the high levels of rainfall seen over autumn and winter.

2.15 In Eastern region, train service delivery declined. On time performance fell from 70.6% to 69.4% and the delay caused by Network Rail also increased, though shortages of delay attribution staff have largely been addressed. A key viaduct at Plessey was closed by an incident during engineering works. We recognise Network Rail took a considered, customer-focused decision to reopen the line quickly with restricted capacity, rather than closing for longer to hand back a fully functional railway. Passengers and freight also experienced delays and cancellations from flooding in autumn.

2.16 In Southern region, train service delivery first stabilised and then improved during Year 5. On Time performance improved from 68.0% to 68.8%. The region's delivery of passenger performance finished the year at its best level for 18 months. A significant driver of better performance in Southern region was improved track performance. In Year 4, drought resulted in track defects which required speed restrictions to be put in place. The same issue did not materialise in Year 5, removing a significant risk to train performance.

2.17 In North West & Central region, performance fell below the minimum levels we expected early in CP6. We investigated in 2019 and pressed the region to produce time-bound improvement plans. We continuously assessed North West & Central region's progress against its plan until it had addressed all the recommendations from our investigation in 2021.

2.18 In the last year, On Time performance increased slightly. However, Network Rail's delay also increased with severe weather a major contributor. After a benign summer the region experienced stormy weather in autumn and winter. The impact of these weather events counteracted improvements that the region expected from its performance recovery plan.

2.19 In Scotland, train service performance for passengers (as measured by the Public Performance Measure or "PPM") improved slightly from the levels seen in Year 4. However, all delay minutes categories increased (worsened) during the year. Severe weather and external events (including areas such as vandalism, trespass and police activity) were the most significant causes of delay. Heavy rainfall in October also led to large delays. Network Rail only achieved its target in Scotland in one year of CP6 (Year 2), when there was a significant reduction in train services running due to the pandemic. We did not escalate this further during CP6 because Network Rail Scotland provided good evidence that it understands the drivers of poor performance and proactively worked with the train operator ScotRail to improve it, including through the Performance Improvement Executive and its Joint Performance Improvement Plan (JPIP).

2.20 Network Rail's regions responded to the performance challenge by setting out detailed performance improvement plans. It has provided evidence that individual schemes are driving improvement.

2.21 Network Rail must ensure the regional plans are reviewed regularly and remain focused on the right interventions. ORR has intervened where necessary, for example taking enforcement action due to train performance in Wales & Western and will do so wherever we are not satisfied with the progress made.

2.22 Network Rail has continued to demonstrate its commitment to leading whole industry performance management capability. An ORR review of the Joint Performance Strategies in 2023 found them to be generally well-prepared. Network Rail has used the Performance Improvement Management System (PIMS) Governance Board to lead a peer review of their practical implementation. This was completed in late 2023, highlighting to routes and train operators the strengths and opportunities to improve maturity levels across twelve separate categories. The process will be repeated later in 2024 and is expected to focus on implementation of identified lessons.

2.23 However, Network Rail has not shown it can consistently realise benefits from investment in operations. For example, Network Rail's System Operator developed a Speed Restriction Intelligence Tool or 'SPRINT'. This gives clear visibility of the impact of temporary speed restrictions (TSR), enabling an intelligent and proactive approach to managing them. However, the Network Rail regions are not consistently using this tool and realising its benefits. Network Rail has also invested in the Integrated Timetable Service Recovery Tool, or 'ITSR', which provides standardised process and procedures which should help recover train services during disruption. Where we have reviewed implementation, the evidence is of inconsistent delivery. On East Midlands route for example, ITSR has been successfully delivered in partnership with Govia Thameslink Railway (GTR) although less so with East Midlands Railway. Although ITSR is a joint Network Rail and Train Operating Company (TOC) initiative, and therefore not wholly within Network Rail's responsibility, Network Rail must do all it can to deliver benefit from ITSR.

2.24 The inability to fully realise benefits from these high-potential projects drives inefficiency and can slow progress. This must be a renewed area of focus given the financial constraints and difficult choices to be faced in CP7.

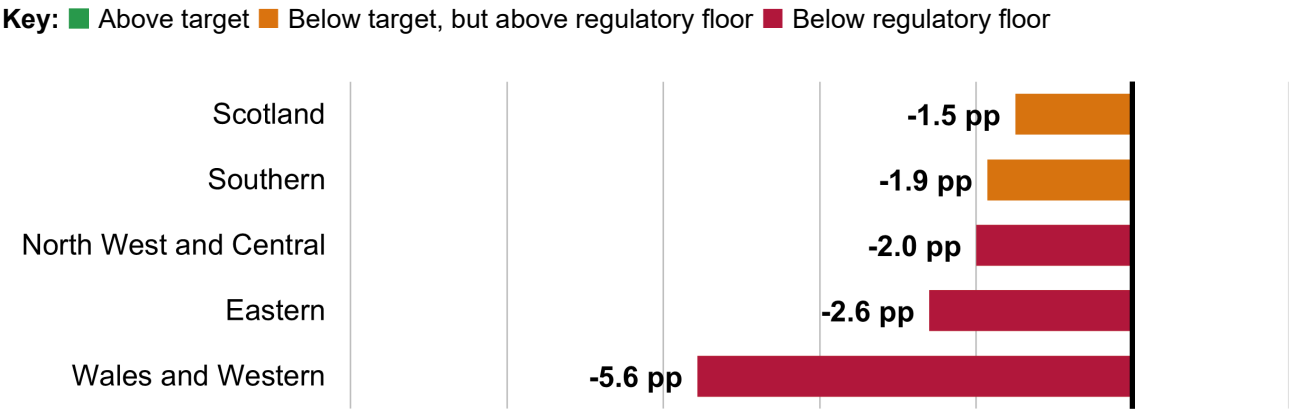
Freight performance improved steadily

Freight performance improved steadily over Year 5 following a particularly poor start. However, delays related to asset reliability continued and Network Rail must make improvements in this area. Network Rail must also be clearer about the roles the regions and the System Operator play in improving freight train performance.

2.25 Freight performance improved over Year 5 reflecting the end of Network Rail industrial action. The national Freight Delivery Metric (FDM) MAA rose from 86.0% in Year 4 to 90.3% at the end of the year.

2.26 Wales & Western had the worst FDM-R MAA at 87.2%. Scotland had the best at 93.0%. While there was variance between the regions, all regions failed to achieve their annual FDM-R scorecard targets as shown in Figure 2.5.

Figure 2.5 Freight performance (FDM-R), percentage better/worse than scorecard targets, annual data, April 2023 to March 2024



Source: ORR analysis of Network Rail data

2.27 Freight performance measures had been heavily influenced by industrial action throughout the preceding year (more so than passenger performance measures, due to the calculation methodology). Even excluding the effects of industrial action from the measure, national freight performance delivery by Network Rail during Year 4 reached its lowest point since the time series began in 2014.

2.28 However, freight train performance improved steadily from this low point during Year 5. The MAA percentage of commercial freight services arriving at their planned destination within 15 minutes of booked arrival time improved from 85.1% in May 2023 to 90.3% at the end of the year. This was still below the regulatory

floor of 92.5%, largely because of worsening asset reliability in some regions leading to delays.

2.29 Freight cancellations ended the year at 1.74%. This was slightly worse than the target of 1.68%. The main causes of freight cancellations were asset failures across the network, other significant incidents (for example the closure of Nuneham Viaduct) and severe weather.

2.30 Network Rail's regional performance improvement plans delivered benefits during the year, and we have seen evidence of the System Operator collaborating with the regions and industry to achieve improved performance (e.g. through the Mendip Rail timetable change in Wales & Western region). However, we have yet to see consistent evidence of leadership by the System Operator, and regional freight performance remains mixed. In December 2023, we wrote to Network Rail to explain that we required accountabilities and responsibilities for freight within Network Rail to be much clearer as we start CP7. We asked for clarity of the actions the regions and the System Operator will be accountable for in improving freight train performance. That clarity is essential for assurance that the required performance improvements are being delivered. We will maintain a close watch on progress and intervene if required.

2.31 We closely monitored the freight team in the System Operator as it developed its freight growth plans for CP7. We saw some evidence of the team engaging with and providing leadership to the regions in developing its plans. For example, it developed a National Freight Performance Strategy for CP7 to act as a framework for the regions' plans. The strategy includes initiatives to be delivered in collaboration with freight train operating companies (e.g. best practice agreements for third party connections to the network). We have seen this approach featuring as part of the regions' plans and we continue to engage with the System Operator and regions as they develop the actions needed to deliver on them in CP7.

Performance innovation funding

2.32 For CP6, ORR established a Performance Innovation Fund (PIF) designed to support innovative ways to drive performance improvements.

2.33 Investments through the scheme were slow to start. In our annual assessments in the first half of CP6, we highlighted the lower than planned level of PIF investment. The System Operator implemented a recovery plan to address the slow expenditure. This plan delivered targeted interventions which increased the rate of investment made. In our last annual assessment, we noted that the plan was working. At the end of Year 4, £26.1 million had been invested.

2.34 This continued into Year 5. Out of a total authorised sum of £45.5 million (this is £40 million in 2018 prices, the original PIF value), £39 million had been invested.

2.35 Investment was varied across the regions. North West & Central made the largest regional investment of £10.5 million. The other four regions' combined total investment was £17.6 million (with the remainder invested by Network Rail's National Functions). Network Rail should review whether this regional imbalance in performance investment was the optimal approach.

3. Asset Management

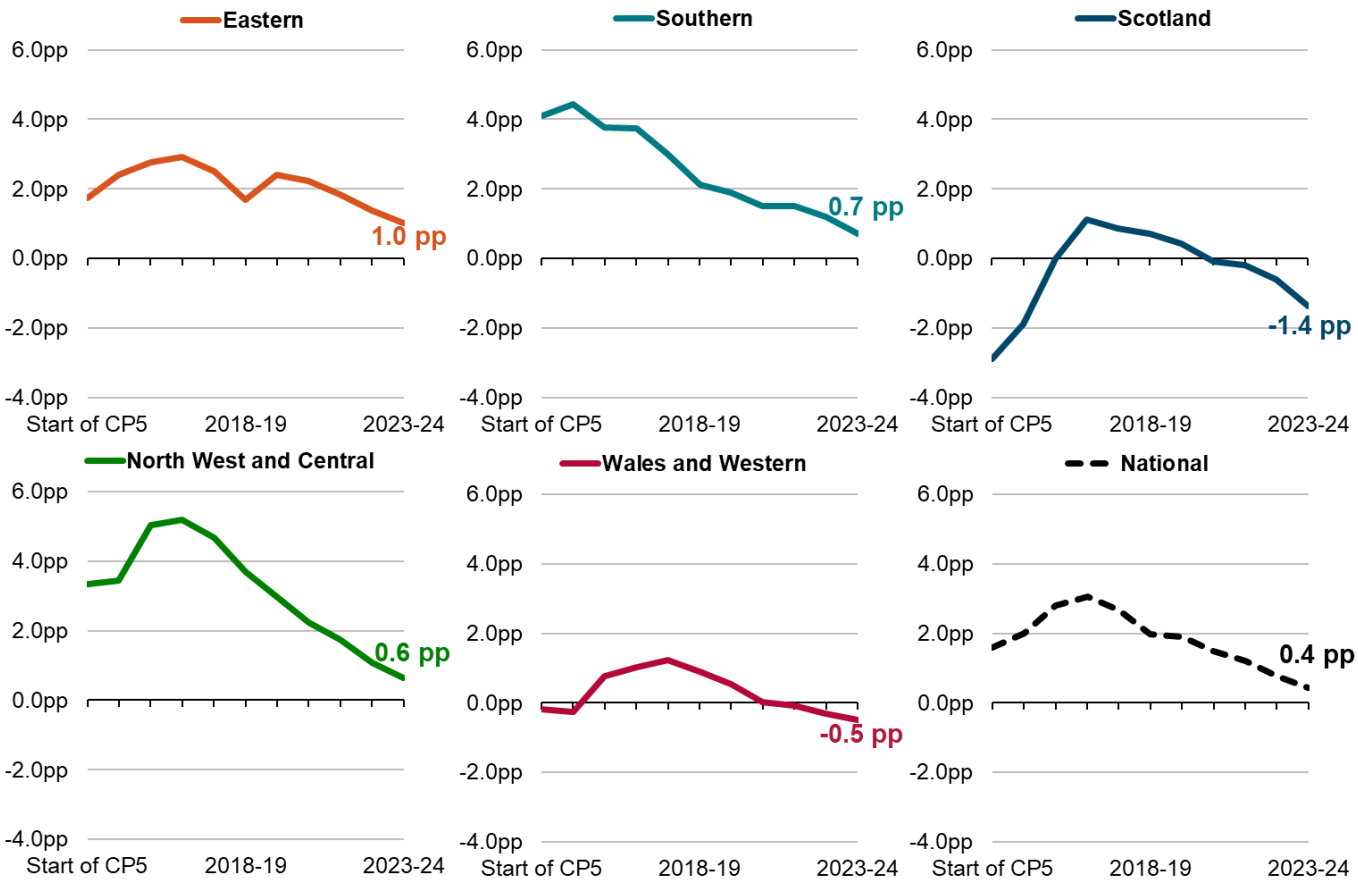
Network Rail largely delivered on its network-wide target for renewals of key assets. It must continue to improve its asset knowledge and recover its programme of structures examinations.

Network Rail largely delivered its asset condition target and its planned effective renewals volumes. Shortfalls in renewals of structures and track have increased pressures on maintaining and renewing core assets in CP7. Network Rail must continue to improve its asset knowledge, delivering its agreed recovery plan for structures examinations and continuing to improve its management of drainage assets to better address challenges of extreme weather.

3.1 Network Rail must maintain and renew its assets in an efficient, sustainable way, while ensuring there is a safe and operational railway. In CP6, we measure asset sustainability through the Composite Sustainability Index (CSI). This consistent measure has a target for each region for the end of the control period.

3.2 The national CSI for Year 5 was −1.2% against a target of −1.6% and was therefore 0.4 percentage points (pp) above target as shown in figure 3.1. The CSI of −1.2% represents a 1.2% decline in overall asset sustainability since the baseline at the end of CP4.

Figure 3.1 Composite Sustainability Index (CSI) by region, percentage points variance to end of CP6 target, annual data, April 2014 to March 2024



Source: ORR analysis of Network Rail data

3.3 Out of the five regions, three regions delivered against their CSI targets for the end of CP6 (Eastern, North West & Central, and Southern).

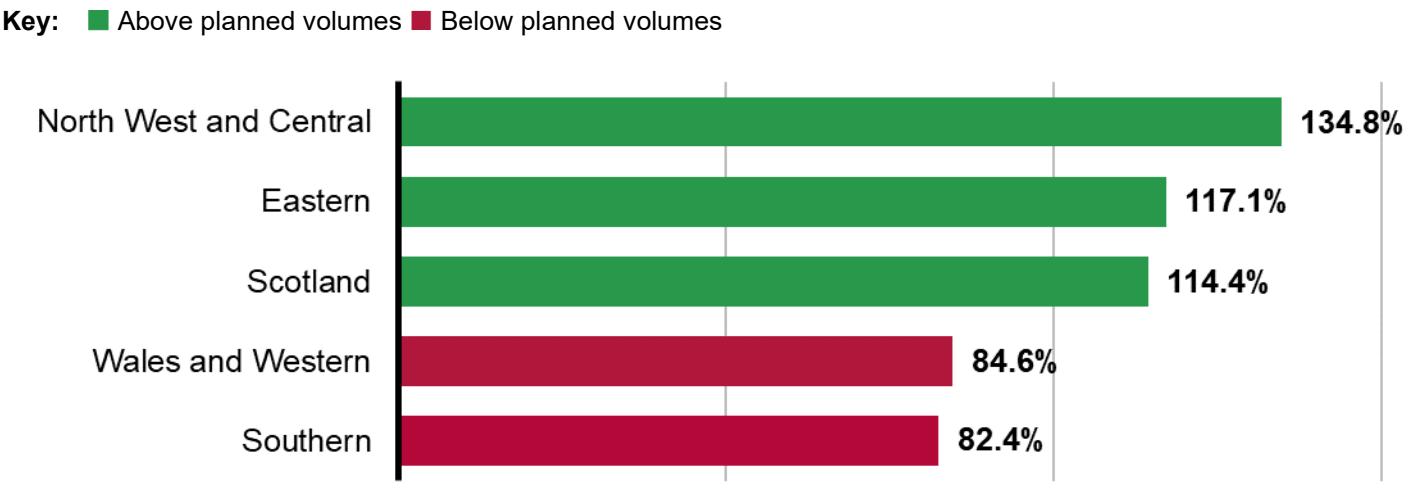
3.4 We scrutinise Network Rail's delivery of its asset renewals work and whether delivery is in line with its planned volumes for each year of the control period. As part of our assessment, we look at Network Rail's delivery of 'effective volumes'. This refers to the volume of work undertaken in seven key areas, attributing weightings based on the life added to the asset by each type of work. For example, for plain line track a full renewal is given a higher weighting than replacing one individual element.

3.5 Network Rail mostly delivered its renewals plans in the first three years of CP6, but with some deferrals as it dealt with the disruption caused by the pandemic. However, the financial pressures due to factors such as unexpectedly high

inflation in the later years of CP6, resulted in Network Rail making some changes to the scope of its renewals programme.

3.6 In Year 5, the delivery of renewals at regional level was varied. Wales & Western and Southern regions fell short of their planned volumes, while North West & Central, Eastern and Scotland surpassed their delivery plans.

Figure 3.2 Effective volumes (renewals) percentage completion by region, annual data, April 2023 to March 2024



Source: ORR analysis of Network Rail data

3.7 North West & Central ended the year ahead of its effective volumes plan, particularly due to increased volumes in signalling and earthworks.

3.8 Although Eastern region surpassed its overall planned volumes target, it fell short on its delivery for some specific assets. There was notable underdelivery in signalling (60% of target) and overhead line equipment (82% of target). The deferral of several projects into the early part of CP7 contributed to the issues in signalling.

3.9 Network Rail Scotland outperformed its plan across each asset discipline, with substantially increased volumes in switches and crossings, structures and earthworks.

3.10 Wales & Western underdelivered in most key asset areas, with structures volumes reaching only 58% due to budgetary constraints, while track (plain line and switches and crossings) volumes were approximately 30% less than planned. This shortfall resulted from the inability to carry out works due to the Nuneham Viaduct closure and further budget constraints.

3.11 Southern region delivered the lowest effective renewals volume of all regions, underperforming in track, signalling and structures. The underdelivery in structures particularly affected underbridges and was caused by reduced funding and the need to maintain cash compliance.

3.12 The table below shows varied delivery performance across asset categories.

Table 3.1 Effective volumes (renewals), Great Britain, annual data, April 2023 to March 2024

Actual and plan numbers are rounded; the percentage complete is calculated from unrounded numbers. A percentage complete in excess of 100% indicates delivering more than the planned volumes.

Key: **G** (Green): Above planned volumes **R** (Red): Below planned volumes

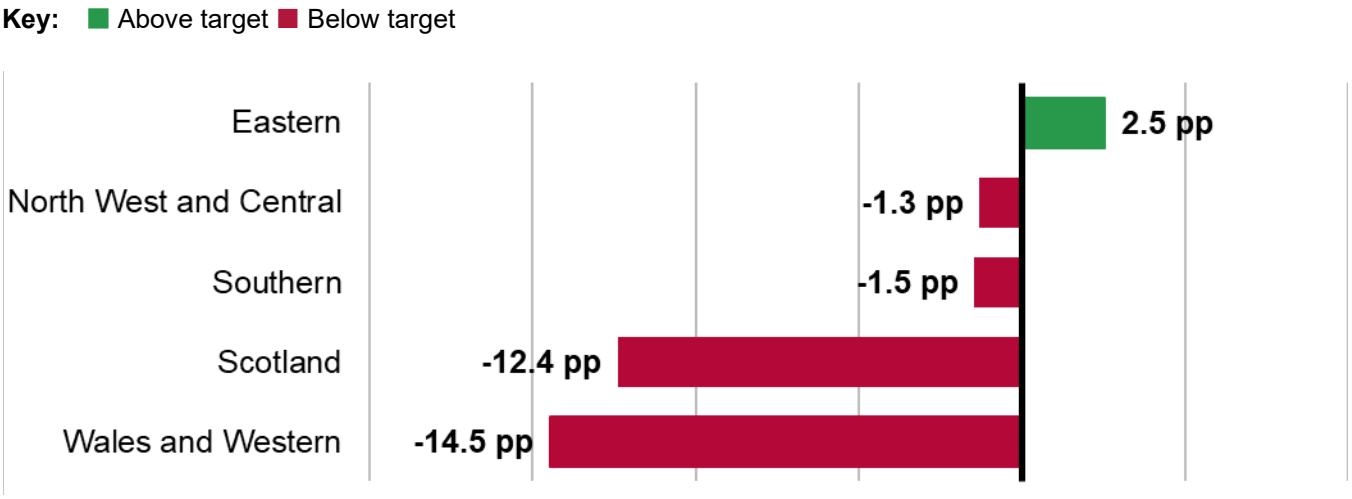
Asset	Actual	Plan	Completion	Percentage complete
Conductor rail renewal (km)	22	18	G	125%
Earthworks	355	294	G	121%
Overhead line equipment (km)	29	27	G	107%
Track: Plain Line	944	1,013	R	93%
Track: Switches and crossings	325	300	G	108%
Signalling	1,897	1,926	R	98%
Structures: Bridges	15,207	17,451	R	87%
All assets (weighted total)	*Not applicable*	*Not applicable*	R	**99%**

Source: ORR analysis of Network Rail data

Asset reliability continued to decline, falling below targets

3.13 Network Rail measures asset reliability using the Composite Reliability Index (CRI). This measures the percentage change in reliability since the end of Control Period 5 (CP5), between 1 April 2014 and 31 March 2019.

Figure 3.3 Composite Reliability Index (CRI) by region, percentage points better/worse than scorecard targets, annual data, April 2023 to March 2024



Source: ORR analysis of Network Rail data

3.14 Asset reliability, as measured by CRI, declined in Scotland, Wales & Western, Southern and North West & Central regions, falling below the target for Year 5. Eastern finished above the target.

3.15 Reliability was poor in Wales & Western region, attributed to underperformance across nearly all key asset disciplines. Track and electrification asset failures were significant contributors to this and were a key focus of our investigation and its recommendations.

Network Rail's shortfall in structures examinations persists

3.16 We remain concerned about Network Rail's shortfall in structures examination compliance, which may lead to the risk of undetected faults or inadequate assessments. We have previously expressed our concerns about the limited progress Network Rail has made in addressing non-compliance with structures examinations.

3.17 The issue has been under ORR scrutiny since CP5. Our concerns have increased during CP6 due to stagnant progress and deterioration in some areas. In May 2023, we wrote to Network Rail setting out our continuing concerns and

underlining the potential for regulatory action. In response, Network Rail's regions submitted recovery plans aimed at returning to compliance. We undertook a detailed assurance review at the end of the year and found that none of the regions had fully achieved their planned volumes of examinations in line with their recovery plans. North West & Central and Southern regions had the higher discrepancies against their forecasts. We are therefore extending our enhanced monitoring and will reassess at the end of 2024.

Network Rail is improving its drainage asset knowledge

3.18 Following the tragic events at Carmont in August 2020 and the subsequent reports from Lord Robert Mair and Dame Julia Slingo, improvements to the management of drainage assets has been a key focus. We have consistently challenged Network Rail to improve its asset knowledge and drainage management plans. It has improved its knowledge of drainage assets over CP6 but two regions, Eastern and Southern, did not manage to complete their drainage asset registers before the end of CP6 as had been agreed with ORR. Network Rail's regions also need to ensure that they manage their resources to carry out drainage inspections and maintenance effectively. Southern subsequently completed its full asset register in May 2024 and Eastern did so in June 2024.

Network Rail needs to address its data quality issues

3.19 Accurate and complete data is a network licence condition for Network Rail. Over the past year, we identified various data quality issues. We wrote to Network Rail to raise these concerns formally.

3.20 One significant concern revolved around Network Rail's management of Network Capability data, where discrepancies between published information and actual network capabilities were noted by the train operators and ORR. In response, ORR engaged an independent reporter to assess Network Rail's reporting compliance and recommend improvements. We wrote to Network Rail requiring a robust and transparent response to the recommendations and will continue to monitor this area.

3.21 We also escalated governance and assurance issues regarding energy and carbon data reporting. We required Network Rail to ensure robust governance and error-free reporting. It has made improvements and we will review the quality of environmental reporting in CP7.

Railway enhancements in England and Wales and in Scotland have been subject to significant change

There have been changes to railway enhancements, largely due to increasing pressure on government spending and the impact of inflation on delivery costs. Overall, while the regions have performed well to mitigate these challenges, there have been delays on several schemes.

Network Rail's Enhancement Delivery Plans and milestone delivery

3.22 Detail on regional schemes can be found in the relevant annexes. Out of 19 enhancements delivery milestones published in the England and Wales enhancements delivery plan (EDP), three were completed on target, five were delivered in the year but the milestones were revised, ten have been delayed into future years, and one remains subject to change control. The schemes are listed below.

Completed on target:

- Ashford to Ramsgate journey time improvement Phase 2
- Hope Valley capacity
- South West Rail Resilience Programme Phase 3

Completed but milestone revised:

- Gatwick Airport Station
- University Station, Birmingham
- Clapham Junction Enhancement Portfolio Work Package 2
- Brighton Yard refurbishment
- Platform enhancements at Littlehaven station

Delayed into future years:

- ECML Enhancements Programme Power Supply Upgrade Phase 2
- South West Rail Resilience Programme Phase 4
- Great Western Route Modernisation

- Manchester and Northwest Transformation Programme Phase 3A
- Manchester and Northwest Transformation Programme Phase 3B
- Northumberland Line Restoring Your Railway
- London Victoria Redevelopment Programme
- Bushey Power Supply Upgrade Auto Transformer Feeder
- Bushey Power Supply Carrier Wire Neutral Section
- Midland Mainline Electrification (Kettering to Wigston)

Subject to change control:

- Stratford station congestion relief

3.23 In Scotland, Glasgow to Barrhead Electrification was delivered on time, and East Linton Station was also delivered on time against a revised milestone from Year 4.

3.24 Network Rail has continued to publish its EDP for England and Wales but is not publishing its EDP in Scotland. We are actively progressing publication of the EDP with Network Rail Scotland and Transport Scotland to support transparency for the supply chain, users and stakeholders.

Network Rail improved its capability to plan and deliver enhancements in CP6

3.25 We use our Capital Investment Capability Framework (CICF) to assess Network Rail's capability to deliver its renewals and enhancements programmes. This year, the assessment also included TransPennine Route Upgrade (TRU) due to the large investment and capability required to deliver this programme. Network Rail has improved its capability to plan and deliver renewals and enhancements in CP6 across all regions. We will publish our summary report and provide detailed reporting later in the summer.

Network Rail and Government introduced several programmes to support enhancements delivery in CP6

3.26 Project SPEED (Swift, Pragmatic and Efficient Enhancement Delivery) was introduced to bring forward proposals to deliver public investment projects more strategically and efficiently. This was to ensure the right infrastructure projects are built better and faster than before. We have continued to engage with Network Rail project teams using SPEED techniques to deliver enhancements.

3.27 Better Value Rail (BVR) was introduced as a joint ORR, Network Rail and Department for Transport improvement plan. It focusses on new and innovative approaches to specification, development and design of enhancement programmes.

3.28 The Restoring Your Railways programme (also commonly referred to as Beeching reinstatements) was introduced to restore many of the Beeching lines closures. This programme is ongoing and we are monitoring projects which are part of this programme.

4. Finance and efficiency

Network Rail successfully delivered its CP6 efficiency plans in the final year of the control period

Network Rail delivered its efficiency plans for the year and achieved its target of £4.0 billion of savings for CP6 overall. Wider financial performance declined in the year, in part due to performance-related compensation payments to train operators. Network Rail must now focus on delivering efficiencies in Year 1 of CP7 and over the course of the control period.

4.1 This analysis is based on draft financial information provided by Network Rail. We will report more fully on these matters in our Annual Efficiency and Finance Assessment (AEFA) of Network Rail, which examines the company's financial performance in relation to its CP6 delivery plan. The AEFA is scheduled for publication this autumn.

4.2 Network Rail reported £1,116 million of efficiencies in Year 5. This represents an 18% year-on-year increase, despite the company encountering a number of difficulties including challenging weather conditions. As shown in Table 4.1, these efficiency improvements were largely achieved from modernisation of ways of working and improved contracting strategies.

Table 4.1 Top 5 key efficiency initiatives, annual data, April 2023 to March 2024

Top five efficiency initiatives (£ million)	Eastern	North West & Central	Scotland	Southern	Wales & Western	Non-region	Total
Modernisation	43	31	16	28	20	146	284
Contracting strategies/packaging/ rates	43	14	6	43	23	52	181
Development of works delivery capabilities	95	15	2	11	1	0	124
Innovation and technology benefits	20	12	2	−4	29	7	66
Early contractor involvement, defined scope, minimum specification solution	11	12	3	23	13	0	61

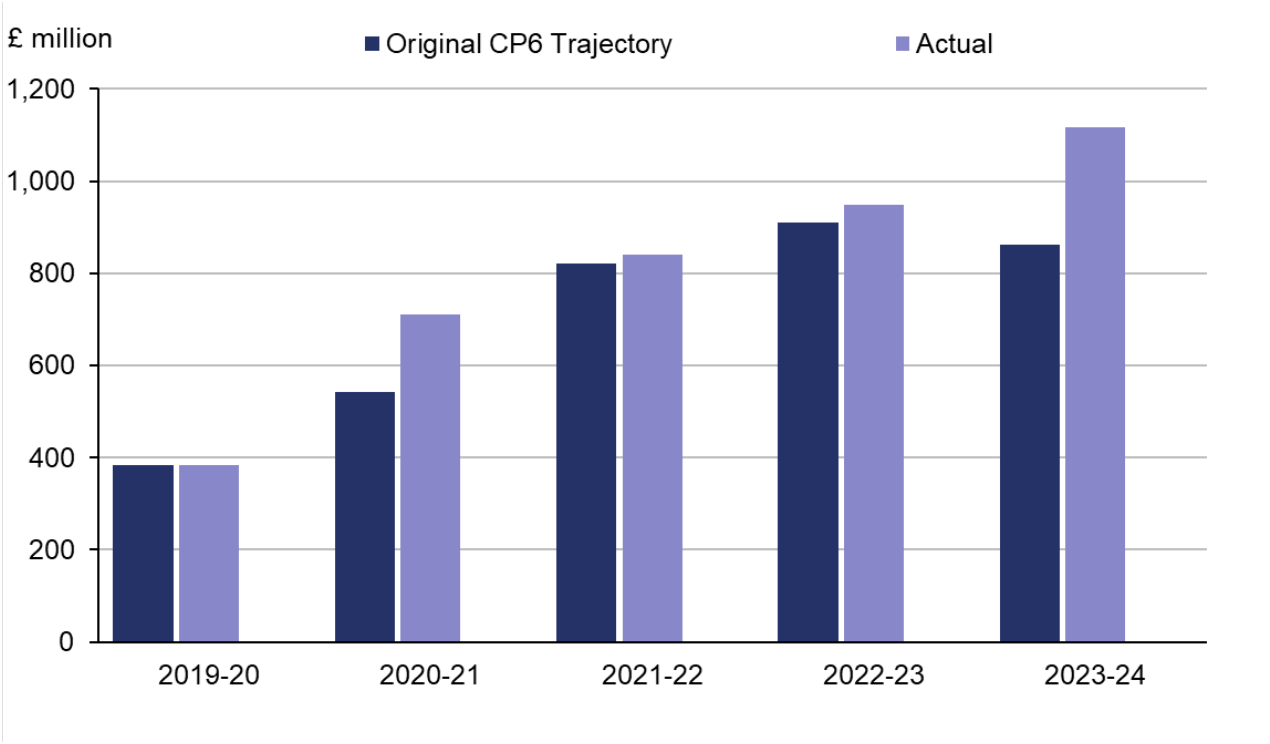
Source: ORR analysis of Network Rail data

4.3 Following the pandemic, Network Rail increased its own CP6 efficiency target from the £3.5 billion that we set it in our P18 final determination to £4.0 billion, with the planned increase coming mostly from workforce reform initiatives.

4.4 Despite the challenges that Network Rail faced over CP6 including the pandemic, industrial action and a volatile macroeconomic environment, the company successfully delivered its cumulative revised efficiencies target of £4.0 billion of savings over the control period. We have actively monitored Network Rail's reporting of drivers of cost changes throughout CP6. This has included an annual series of deep dive sample tests of reported efficiencies, headwinds and scope changes. We reported on the findings of our reviews in our previous AEFAs.

4.5 Network Rail's £4.0 billion of efficiency savings has been achieved from a number of initiatives with the key areas being: benefits associated with reform activities (workforce reform and wider reform activities), utilisation of works delivery capabilities, possession management and improvements driven by changes in standards.

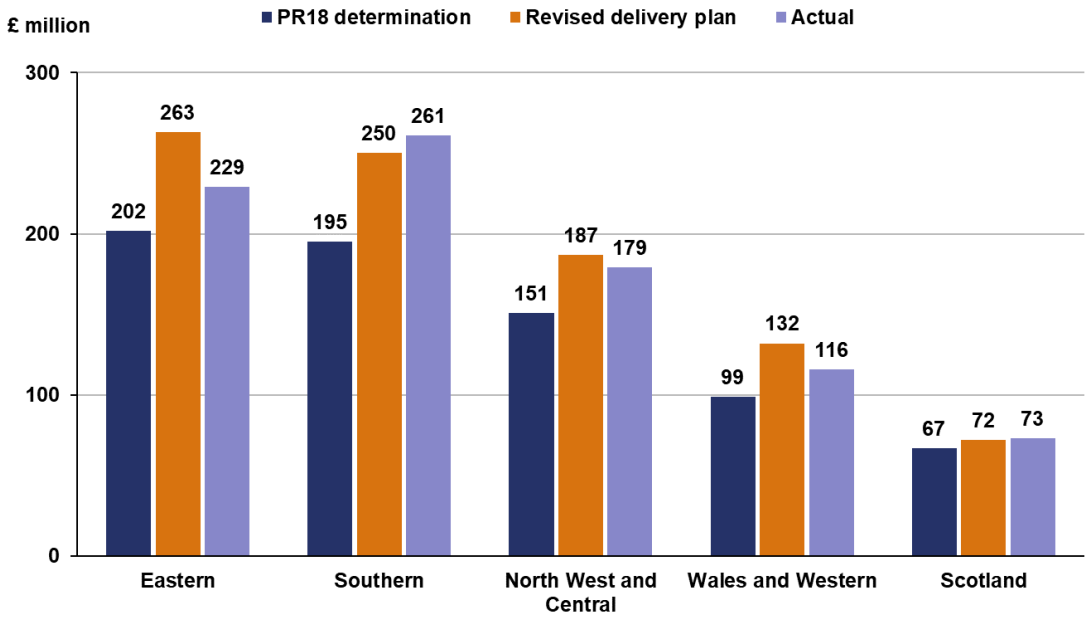
Figure 4.1 Efficiency improvements in CP6, annual data, April 2019 to March 2024



Source: ORR analysis of Network Rail data

4.6 As shown in Figure 4.2, all regions exceeded their original CP6 targets for Year 5. However, only Southern and Network Rail Scotland exceeded their in-year delivery plan target (by 4% and 1% respectively). Eastern and North West & Central were slightly behind their delivery plan targets as a result of setting additional stretch targets within their delivery plan in an effort to deliver further efficiencies than anticipated. While other regions did exceed their original targets, the shortfall in achieving their delivery plan targets was due to delays in workforce modernisation initiatives. Southern's outperformance was driven by improved contracting strategies, LEAN (implementing a culture of continual improvement) initiatives and improved workbank planning, while Scotland's outperformance was a result of benefits from additional pay related savings and other small initiatives performing better than anticipated. National Functions saw efficiency saving of £258 million over the year, exceeding the delivery plan by 21%.

Figure 4.2 Regional contribution to efficiency improvements, annual data, April 2023 to March 2024



Source: ORR analysis of Network Rail data

4.7 Network Rail Scotland delivered £73 million of efficiency saving in Year 5 of CP6, exceeding its annual delivery plan target (£72 million) by 1% and our original CP6 target (£67 million) by 9%. The region delivered £351 million of efficiency saving over the control period, 1% over its revised delivery plan (£349 million) and 12% above its original CP6 target (£314 million). Key efficiency savings over CP6 were made in contracting strategies, supply chain management, optimisation of access and workforce reform.

4.8 With Year 5 being the last year of CP6, Network Rail's leading indicators look forward to the company's readiness in delivery for Year 1 of Control Period 7 (CP7). At year end, these indicators suggested that 72% of Network Rail's regional efficiency targets had completed or well-developed plans for Year 1 of CP7. 28% of regional efficiency targets had minimal plans in place, largely due to the change in control period where efficiency baselines are reset and new long term efficiency plans are being established. 67% of planned renewals activities had been authorised, below targets set at 83%, although there are regional variations. 75% of disruptive access for engineering works had been secured, below the target of 83%. However, again, there are sizeable variances between regions.

4.9 Network Rail reported £479 million of financial underperformance in Year 5 compared to its annual budget. This is due to greater disruption to the network from extreme weather events which resulted in higher Schedule 8 compensation

payments to train operators. Other contributing factors included under delivery of planned renewals.

4.10 Going into Year 5, Network Rail had no risk funding available to manage any unforeseen risk. It used up its CP6 risk funding in the first four years of the control period to manage risks associated with the pandemic, industrial action, severe weather conditions and inflationary pressures. In Year 5, Network Rail managed its risk by reprioritising its workbanks, reducing its scope of renewals to manage changes in costs.

5. National Functions

Network Rail's National Functions had mixed performance against their scorecard targets, and we are closely monitoring the delivery of some of their key programmes.

5.1 Performance of Network Rail's regions and System Operator is underpinned in the organisation's operating model by the support they receive from National Functions, which provide services on a centralised basis.

5.2 The National Functions consist of:

- Route Services, which supply Network Rail's routes with services that a national team is best placed to provide (e.g. supply chain operations, engineering services, asset information services, some procurement and IT);
- The Technical Authority which provides technical leadership in areas including health and safety, sustainability and managing quality and information, providing support and delivering assurance for the safe, reliable and effective functioning of infrastructure assets; and
- Corporate Services which are business units that include areas such as Group Finance, Group Property, human resources, communications and business transformation programmes.

5.3 These functions had mixed performance against their internal scorecard targets. Group Property exceeded 100% (the targeted level) on its overall scorecard performance for the financial year at 153.6%. However, Route Services finished the year at 97.0%. The function's performance was mixed with a number of challenges including high inflation and a major fire at the Mountsorrel quarry mitigated by strong delivery across the year for many supply chain operation services.

5.4 Rail milling is a service provided for the regions by Route Services, where a milling train is used to renew the track by grinding away the rail's damaged top layer of steel. In Year 3 and Year 4 of CP6, delivery of the service was behind target as a result of technical challenges with the new milling trains which impacted their ability to fulfil scheduled shifts. Network Rail has now addressed these performance issues and in Year 5 achieved delivery of rail milling of 94.9% against a target of 85%. Sustaining these performance levels is critical to continuing to

build confidence in this service with the regions and maximising the benefits it can deliver.

5.5 Stoneblowing is a service where track maintenance machines lift and pack railway sleepers with ballast to level the track. Route Services has responsibility for Network Rail's stoneblower fleet and its provision of this service to the regions. In CP6 there have been significant reductions of stoneblowing delivered against planned volumes. Network Rail has stated that its existing fleet was performing poorly in terms of reliability, but performance has improved since the original equipment manufacturer, Harsco Rail Ltd, was awarded the contract for operation and maintenance of the stoneblower fleet in May 2023.

5.6 Service reliability challenges were exacerbated by delays to the arrival of its new fleet of stoneblowers, with the fleet now expected to start being delivered in 2024 to 2025, which is about three years later than originally planned. The new fleet is expected to improve efficiency and performance. Network Rail has cited changes in the manufacturer's factory location and a skills loss as causes of these delays with the added complexity of the market being limited to a single supplier.

5.7 Stoneblowing is a key part of regional maintenance plans for CP7 and in our engagement with Network Rail we have expressed the need for it to clearly demonstrate how any impact of these delays on maintenance plans will be mitigated and how lessons learnt will be applied to other programmes.

5.8 We have continued to monitor progress made against commitments made by Network Rail as part of the Electrical Safety Delivery Programme. During the year Network Rail has progressed the deployment of devices and work has continued on the development of remote securing of isolations. The latter is dependent on the successful roll out of the delayed Traction Power Control Management System (TPCMS), which we continue to monitor.

6. Environment

Network Rail missed its national environmental target

Network Rail missed its national environmental target. It performed well against its waste management and carbon emissions reduction targets but fell short of its targeted 18% reduction in non-traction energy usage. It must now make improvements to support delivery of its environmental targets in CP7.

6.1 We measured Network Rail's environmental performance during CP6 using a composite measure called the Environmental Sustainability Index (ESI) which covers waste, carbon emissions and reduction in non-traction energy usage.

6.2 Network Rail missed its national target for ESI. For waste, it exceeded its target for reusing or recycling waste, achieving 93.5% against a target of 90.0% and narrowly missed its target for diverting waste from landfill (by 0.1 percentage point). While performance was above target for reducing non-traction carbon emissions, it was below target for reducing non-traction energy use.

6.3 There was variation across the regions as shown in figure 6 of the executive summary. North West & Central was the only region to meet (and exceed) its annual ESI target. Wales & Western, Eastern, Network Rail Scotland, and Southern failed to achieve their overall ESI targets, with Eastern showing the worst performance, not meeting targets for any of the component measures of ESI. Year 5 presented specific challenges in each region as well as significant challenges for accurate data collection and governance of energy data assurance. We have required Network Rail to undertake a number of actions to address energy data governance issues, and this should provide the platform for improving performance in the future.

6.4 We are engaging with Network Rail's regions and Route Services on how they will deliver improved performance in reporting energy use and continue to deliver reductions in carbon emissions over the course of CP7. We have seen evidence of good practice from each of the regions including a clear list of initiatives to be implemented. We will keep delivery under close review.

7. Safety

Network Rail needs to maintain its focus on providing a safe and resilient railway

Network Rail needs to prioritise its people and their capability to maintain the safety of the network as it continues to implement maintenance reforms, and it needs to continue to deliver effective and sustainable change to trackworker safety.

7.1 Network Rail continued to deliver high levels of safety in control period 6 (CP6), contributing to one of the safest railways in the world. But a small number of tragic incidents during the control period remind us why it is vital for Network Rail to remain focused on improving safety for both passengers and railway workers.

7.2 In July 2019 (the first year of the Control Period), two rail workers lost their lives, resulting in ORR issuing two national improvement notices concerning track worker safety. In July 2022, we confirmed that Network Rail had achieved compliance with these notices, reflecting how it responded positively with transformational changes to the way it plans and delivers safe systems of work. For example, by the end of March 2022 the use of lookout warnings had reduced by 98% resulting in a 70% reduction in near misses involving the workforce.

7.3 Network Rail has delivered effective change safely through trackworker safety reforms. It now needs to do more to embed changes through sustainable ways of working that allow maintainers the access to the track that they need as it continues its reorganisation of maintenance work.

7.4 In August 2020, three people lost their lives in the train derailment at Carmont, near Stonehaven, following a landslip, when the train struck material that had been washed onto the track during a severe rainstorm.

7.5 The two subsequent reports from Lord Robert Mair and Dame Julia Slingo highlight the impact of climate change leading to more frequent and severe weather events and the need to ensure that Network Rail's operations and asset management minimise safety risks as far as possible. During CP6 we have undertaken a programme of inspections to assess Network Rail's response to these reviews and found that Network Rail had a prioritised programme of action plans to address the recommendations. We have also focused on Network Rail's

response to recommendations on improving its drainage management, where we found Network Rail Scotland making good progress but the pace of delivery in other regions being too slow. After we escalated this, all regions except Eastern and Southern completed their drainage asset registers before the end of CP6 as we had agreed.

7.6 In the final year of CP6, Network Rail maintained good performance but with continuing challenges with managing asset safety in the face of weather-related risks. Network Rail's Modernising Maintenance reforms have the potential to deliver efficiencies but need to be done in a way that does not overload people with too much change too quickly or result in fatigue.

7.7 Further detail on Network Rail's overall performance in the management of health and safety can be found in the annual report of health and safety on Britain's railways 2023 to 2024, published alongside this report.

8. System Operation

The System Operator successfully delivered two major timetable changes in May and December 2023

8.1 Timetable delivery has been underpinned by continuing effective risk management by the Industry Timetable Assurance Project Management Office (PMO). We have also seen evidence of the System Operator strengthening how it holds operators and regions to account for adhering to timetable production rules.

8.2 Towards the end of Year 5, the System Operator focused planning and assurance resource on the very significant timetable change planned for December 2024. This activity highlighted significant performance and delivery risks which had not been closed out during the advance planning process. It led to Network Rail recommending a deferral of aspects of the East Coast Main Line (ECML) timetable change. During this process we were pleased to see that the System Operator and the PMO's advice to decision-makers emphasised the importance of meeting timescales to allow information to be provided to customers in accordance with the network code timescales.

8.3 While it is positive that the PMO was consistently transparent to stakeholders over the risks to performance and the System Operator led good, collaborative work across industry to resolve conflicts, this is now the fourth time the ECML recast has been deferred. This means the industry is not able to achieve the planned benefits of significant investment in the infrastructure. It is now critical that wider lessons are learned by the industry, for both the eventual implementation of change on the ECML and for the planning of future major changes. How Network Rail manages this will be a key area of focus for ORR in the coming months.

The System Operator must continue to improve its management of critical industry processes and delivery of major projects

8.4 Over the last year we have intervened several times in track access application cases where the process appeared to lack robustness and coordination. Additionally, the May 2023 timetable change was marked by very late track access applications from two operators and the North West & Central region. We therefore commissioned an independent reporter review in Year 5 which made recommendations on how to improve the process. The System Operator has

made good progress in implementing these recommendations. While not all of the actions were completed in the agreed timescales, the System Operator has committed to greater transparency with more effective communication and coordination, and we are content with the plan to implement the remaining actions.

8.5 We have worked closely with the timetable assurance PMO during the year to collate and present useful information concerning the status of operators' track access rights ahead of timetable changes. The PMO is now reporting more accurately on risks associated with rights not being in place in time, which is a valuable support for ORR in driving improvements from operators and Network Rail regions in this area.

8.6 The System Operator had planned to deliver a number of significant projects in Year 5. Delivery has not progressed as planned in some important areas including the Industry Timetable Technical Strategy (ITTS). Planned benefits have not been fully delivered despite considerable input of resources from operators, stakeholders and internally within Network Rail. For ITTS, in Year 5 and into CP7, the System Operator has adopted a more targeted approach through a series of smaller IT projects supporting timetable production and capacity planning. We accepted this decision, which was informed by stakeholder consultation, in our periodic review 2023 final determination. The projects have defined benefits and governance systems in place, and we will continue to hold the System Operator to account for their delivery.

8.7 Through an independent reporter, we have also reviewed Network Rail's management of network capability and made recommendations for improvement which it is now taking forward, including a new steering group, which met for the first time in May 2024.

8.8 The System Operator has a stewardship role for the Access for All enhancements programme, which did not deliver all its funded schemes in CP6. Following a review by the Rail Investment Centre of Excellence, a number of changes will be made to the governance for CP7, including establishment of a new Portfolio Sponsorship Office. We have asked Network Rail to consider the needs of its external stakeholders when it develops the new reporting for the programme. This could be by publishing a document listing all schemes and updating it quarterly, similar to the current Enhancements Delivery Plan.

Annex A: Performance of Network Rail's Eastern region

Summary

Eastern region's delivery of passenger train service performance declined during the year, but freight train performance made some improvement. The region exceeded its original CP6 efficiency plans. It must address how it will proceed with the implementation of the new East Coast Main Line (ECML) timetable.

Overview

A.1 Network Rail's Eastern region manages the East Coast Main Line, Midland Main Line and the Great Eastern Main Line. The region links towns, cities, ports and freight terminals across the East of England. The region comprises four routes: Anglia, East Coast, East Midlands, and North and East.

A.2 Most passenger rail services are operated by London North Eastern Railway, Northern Trains, TransPennine Express, Cross Country, Govia Thameslink Railway, East Midlands Railway, c2c, Greater Anglia and Arriva Rail London.

Headline performance during Year 5

A.3 Passenger performance in Eastern declined during April 2023 to March 2024 (Year 5 of control period 6 (CP6)). The region missed its scorecard targets for passenger and freight performance, although the latter showed some improvement. The region suffered some particularly impactful incidents that affected performance and must deliver improvement.

A.4 The region must address how it plans to proceed with the ECML timetable.

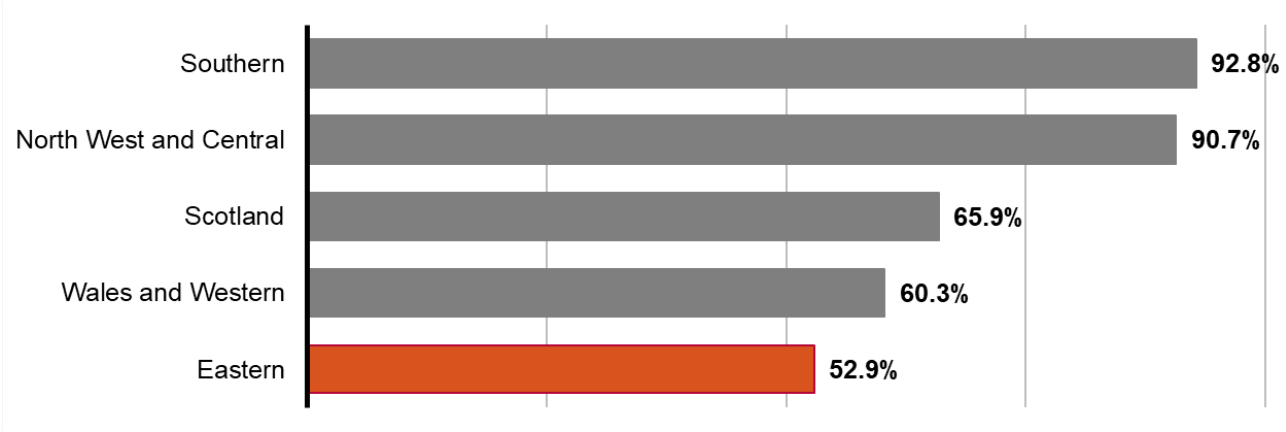
A.5 Eastern missed its target to complete its drainage asset inventory by the end of CP6, completing it in June 2024.

A.6 The region delivered £229 million of efficiencies in Year 5 which was better than the original CP6 target of £202 million but below the revised delivery plan target of £263 million.

A.7 The region's wider financial performance was below target by £196 million, with costs being incurred from supply chain underutilisation charges due to renewals reductions and challenging weather conditions resulting in additional compensation payments to train operators.

A.8 Network Rail measures its regions' overall performance using scorecards which contain a range of performance measures. Overall performance is expressed as a percentage achievement between 0% and 200% (with 100% being on target). Eastern achieved 52.9%. As illustrated in Figure A.1 below, this was the worst performance of all regions.

Figure A.1 Overall scorecard performance by region, annual data, April 2023 to March 2024



Source: Network Rail's regional comparison scorecard

Performance of passenger train services declined but freight train services improved during the year

Performance for passenger services in Eastern region was below the regulatory floor for all of Year 5. At the end of the year, performance for passenger services was at its worst level for CP6. Freight performance improved and must continue to do so, but also ended Year 5 below the regulatory floor. Eastern must now deliver its committed performance improvement plan, learn from high impact incidents and work with operators to improve recovery.

Passenger and freight train service performance

A.9 Eastern's delivery of passenger train service performance declined between April 2023 and March 2024 (Year 5 of CP6). The moving annual average (MAA) for On Time passenger train performance in Eastern region fell from 70.6% in Year 4 to 69.4% at the end of Year 5.

A.10 The delay that Network Rail caused to passenger services in Eastern ended Year 5 and CP6 at its highest (worst) point for CP6 and below its scorecard target. Network Rail-attributed delay in Eastern was 1.79 minutes per 100 train kilometres compared to 1.66 in the previous year.

A.11 Freight performance (as measured by regional Freight Delivery Metric moving annual average (FDM-R MAA)) improved during Year 5 and was close to the region's target, but below the regulatory floor at the end of the year. Freight performance improved to 90.6%. However, this missed the region's scorecard target of 93.1%.

A.12 Performance across the routes was varied. Anglia performance improved in Year 5. However, performance in East Midlands, East Coast and North & East declined during the year.

Causes of delay within Eastern's control

A.13 The biggest cause of delay in Eastern region was in non-track assets and delays associated with network management. Delays due to non-track assets, such as track circuit failures and non-traction power supply failures, increased in Year 5. The industry is finding it more difficult to recover from incidents of all types and Network Rail needs to work closely with train operators to drive change in this area.

A.14 Positively, overhead line equipment resilience work on the ECML is ahead of schedule, with 50% of the insulators now replaced.

A.15 The most significant delay incident in Year 5 was caused by damage to Plessey Viaduct on the ECML during planned engineering work in October 2023. Network Rail was accountable for the incident and the delays which resulted from closing the line to undertake repairs. However, it repaired the problem quickly. One line remained open over the viaduct and reduced services operated for one month while work required to the parapet on the viaduct was undertaken. This reduced the inconvenience for passengers and freight customers which closing the line completely would have caused.

A.16 We wrote to Network Rail in December 2023 stating it must focus on the shortage of delay attribution staff in the region. These staff collate data on causes of delay that can then inform performance improvement plans. When this role is not carried out, not only are there issues with performance data quality, but delays allocated to Network Rail generally increase (as they are not always allocated properly) which can negatively affect the region's performance metrics. The region has increased resources in this area and the negative impact on performance metrics reduced in the second half of Year 5.

A.17 There was flooding on North & East and East Midlands routes. This particularly impacted freight performance (with an increase in freight cancellations) whereas passenger services were able to run to amended timetables. During storm Babet, the river Erewash burst its banks in the Trowell area, flooding the railway and closing Toton Freight Yard.

A.18 Delays due to track quality fell in Year 5. The main reason for this was that the 'soil moisture deficit', in part due to the very hot and dry summer in 2022, did not recur in summer 2023. This removed a significant risk to performance.

A.19 The region made good progress in reducing the number of temporary speed restrictions. There were periods in the year when it was able to operate the ECML with no speed restrictions.

We remain concerned with Eastern's train performance and expect it to deliver improvements

A.20 Eastern's train performance as measured by the regulated performance measures outlined above remains well below the standard expected.

A.21 We raised our concerns with the region about the delivery of performance in Year 4 of CP6. In response, each route produced a recovery plan for both passenger and freight performance. These covered a range of activities to improve performance.

A.22 While the region is delivering the activities identified in the plans and performance was improving, the incident at Plessey Viaduct had a significant adverse impact, delaying over 4,000 trains totalling more than 22,000 delay minutes. During the second half of Year 5, the region was affected by severe weather, with the named storms referenced above causing flooding and damage, particularly in the North & East and East Midland routes.

A.23 We have continued to monitor the delivery of the improvement plans as well as escalating our concerns during the year. We will act if performance does not improve.

Capacity and access to the network

A.24 The region has worked with an industry Event Steering Group (ESG) for three years to introduce a new timetable on the ECML. In January 2024, the region concluded that its work was sufficiently mature to handover to the System Operator for timetable production, ready for implementation in December 2024.

A.25 However, following analysis by the System Operator, the Industry Timetable Assurance Programme Management Office (PMO) recommended to funders that the ESG timetable could not be delivered robustly because of unresolvable conflicts between passenger and freight services. The high number of unresolvable conflicts meant that a new base timetable had a low chance of delivering an acceptable level of operating performance to customers. We wrote to funders to validate the advice provided by the PMO. One of our key priorities for Year 1 of CP7 is holding Network Rail to account for the development and delivery of a plan to resolve the long-running challenge of capacity allocation on the ECML.

A.26 As part of the periodic review 2023, the region needed to correct and update contracts which allocate capacity, assign charges and compensation payments in accordance with legal requirements, then submit them to ORR. The process proved challenging for the region, highlighting a need for better contract management. Eastern has conducted a process review and put in place regular reporting to ORR on its contracts.

Asset reliability exceeded its target but there were some significant incidents

The region exceeded its planned asset renewals for Year 5 but missed the target to complete its drainage asset inventory.

A.27 Eastern finished the year with a Composite Reliability Index (CRI) score of 4.9% against its scorecard target of 2.4%. This means the region was 2.5 percentage points above (better than) its annual scorecard target and 4.9% better than it was in the final year of CP5.

A.28 However, despite these positive outcomes, there were some high-profile incidents involving Overhead Line Equipment (OLE), structures and track.

A.29 OLE performance and resilience are significant areas of concern. There were several incidents that caused significant disruption resulting in over 6,000 delay minutes each, across different regions. Our initial analysis indicates that these incidents have been more prevalent in Eastern.

A.30 Substantial delays were recorded at Bytham (located between Peterborough and Grantham) and between London Kings Cross and Peterborough, both on the ECML following OLE incidents. We are reviewing these incidents to determine whether Eastern is taking all reasonable measures to manage its OLE assets effectively and address any performance and resilience issues. We will work closely with Network Rail to ensure that appropriate action is taken to minimise disruption to passengers and freight.

A.31 The significant incident involving a broken high-speed crossing at Colton Junction, near York, in May 2023 was subject to detailed investigation. This highlighted the need for additional assurance in managing Switches and Crossings, as well as the importance of appropriate inspection routines and adequate access for maintenance and safety checks. We are monitoring progress to ensure that Eastern implements appropriate preventive measures, reducing the risk of future incidents and managing Switches and Crossings to operate safely and reliably.

A.32 Following incidents related to track renewal such as at Plessey Viaduct during Year 5 and Nine Elms Viaduct in 2020, we have concerns about Network Rail's process for learning from these events. We are at an early stage of working with Network Rail to understand the effectiveness of its lessons learnt process from such incidents. We had ongoing communication with Eastern during its

investigation of the Plessey Viaduct incident and we are currently reviewing the outcome of this investigation.

Eastern delivered its assets renewals plan for four asset types

A.33 We scrutinise Network Rail's delivery of assets renewals work and whether this in line with planned volumes for each year of the control period. As part of our assessment, we look at delivery of effective volumes. This refers to the volume of work undertaken in seven key asset areas, with weightings attributed based on life added to the asset by each type of work.

A.34 Eastern region's delivery of effective renewals volumes was good during the year. It achieved or exceeded 100% of its plan in four of the six asset types which are relevant to the region. Signalling renewals were 40% below the plan and OLE re-wire and mid-life refurbishments were 18% less than plan. Signalling renewals underdelivery was due to the slippage in the commissioning of several projects, which have been deferred to the early part of the CP7.

The region's asset sustainability continued to decline

A.35 Network Rail must maintain and renew its assets in an efficient, sustainable way to support railway operations. We measure this using the Composite Sustainability Index (CSI), which compares asset sustainability to the end of CP4. Eastern finished the year with a CSI of –0.7%. This represents a decline in overall asset sustainability of 0.7% since the end of CP4.

Eastern missed the target to complete its drainage asset inventory

A.36 The Rail Accident Investigation Branch (RAIB) report into the derailment due to a landslip and subsequent collision in Watford in 2016 recommended that all Network Rail regions complete an accurate drainage asset inventory. All regions committed to having a full drainage asset inventory by 31 March 2024. Three regions met the target. Eastern was one of two regions which required an extension, in this case to October 2024.

A.37 We raised concerns with Network Rail about the delay in completing the drainage asset inventory. Eastern has since completed its drainage asset inventory in June 2024.

A.38 Following each region's declaration of completion, Network Rail's Technical Authority will conduct an assurance check to confirm the work's completeness and quality. We have expressed concerns about the process and timeline for these assurance checks, specifically regarding the scope of the checks and the

expected completion dates. The Technical Authority is currently addressing these concerns and there has been progress in resolving the issues.

Eastern had the worst Environmental Sustainability Index score of all regions

A.39 Eastern did not achieve its Environmental Sustainability Index (ESI) scorecard target for the year. It had the worst ESI score of all regions at 32.3%. The region was below target for all components including reducing non-traction carbon emissions, non-hazardous waste reused and recycled, non-hazardous waste diverted from landfill, and reducing non-traction energy use.

A.40 The management and disposal of waste from capital projects in Eastern were significant factors contributing to failure to meet reuse and recycling targets. Energy reduction performance fell short of the target due to factors including increased heating in colder months, office energy increases, and new depots entering into service.

A.41 We are keen to see the region continue to address issues that have affected environmental performance, so that we see improved performance reporting for scope 1 and 2 carbon emissions and circular economy (waste reused) in the first year of CP7.

Eastern continued to deliver well on enhancements

A.42 Eastern has delivered major milestones across various projects in the region. These included opening a new station, the completion of various engineering works such as rail replacement and upgrades to power supply which will improve train performance.

A.43 The first new major mainline station in London in over a decade opened in Year 5. Brent Cross West station on the Midland Main Line was completed and opened in December 2023.

A.44 At the beginning of the year Eastern completed essential enabling works for the reinstatement of passenger trains to the Northumberland Line. This work will facilitate the return of passenger services and the opening of new stations on the Northumberland line in 2024.

A.45 Over the 2023 Christmas period, enabling works were successfully completed in preparation for the opening of Cambridge South station. Overhead line was replaced and track was realigned to enable the construction of a new loop line.

A.46 Eastern has continued to deliver increased power resilience throughout the region in Year 5. On the East Coast Main Line at Hambleton, essential work has been delivered at Potteric Carr.

A.47 The Eastern region also brought European Train Control System (ETCS) Level 2 signalling into service later than planned in November 2023, on the Northern City Line between Moorgate and Drayton Park. The first train ran using this signalling system at the end of November 2023. This project will act as a pathfinder for a key industry change to digital signalling.

The region delivered on efficiencies but has financially underperformed in Year 5

Eastern delivered its efficiency savings for Year 5, exceeding its original CP6 efficiency target but fell short of its revised delivery plan. The region underperformed financially, primarily driven by deferrals in renewals volumes and increased Schedule 8 payments to train operators.

A.48 Eastern delivered £229 million of efficiencies in Year 5 of CP6. The region outperformed its original CP6 target of £202 million by 13% but was behind its 2023 to 2024 delivery plan of £263 million (which included additional stretch in its efficiency plans) by 13%. The shortfall was primarily driven by cash constraints resulting in cancelled and deferred work across the region, which in turn led to a reduction in the region's efficiency delivery.

A.49 However, the region has made further efforts to assure its delivery of work and its efficiencies associated with building initiatives to help achieve its CP6 efficiency delivery. Eastern delivered £1,059 million of efficiency savings over CP6 exceeding its original CP6 target of £876 million by 21% but was slightly behind its revised CP6 delivery plan of £1,093 million (3%) due to delays in reform initiatives and deferred renewals work across the region.

A.50 The region's key efficiency savings across the control period were achieved from contracting strategies, work delivery capabilities and improvements through the use of new technologies.

A.51 With Year 5 being the last year of CP6, Network Rail's leading indicators look forward to the region's readiness in delivery for Year 1 of CP7. Eastern's leading indicators suggest that 81% of its efficiency improvements had completed or well-

developed plans as at March 2024. The remaining 19% of improvements had minimal plans in place.

A.52 The region had 61% of its renewal activities authorised for the year, six percentage points below the national average of 67% and 74% of its disruptive access secured for engineering works, one percentage point below the national average of 75%.

A.53 In Year 5, Eastern reported a financial underperformance of £196 million. The underperformance was as a result of incurring supply chain underutilisation charges for rail, ballast and on-track plant due to work bank deferrals, and also as a result of challenging weather conditions, which resulted in additional schedule 8 compensation payments to train operators.

A.54 Further analysis of the region's financial performance will be carried out in our Annual Efficiency and Finance Assessment, which examines the financial performance in relation to the region's CP6 delivery plan. This is scheduled for publication this autumn.

The region must learn from significant incidents

A.55 Our overall assessment is that Eastern's safety performance was largely unchanged in Year 5. The Lost Time Injury Frequency Rate (LTIFR) moving annual average increased very slightly during Year 5 to 0.199, with slips, trips or falls of less than two metres accounting for nearly half of all accidents. This is below Network Rail's national LTIFR which is 0.234. Fatalities and Weighted Injuries (FWI) remained broadly static at 0.052 at year-end compared with 0.047 at the end of Year 4. There were no railway-related accidental fatalities at level crossings, and numbers of level crossing near-misses were broadly unchanged. Numbers of category A Signal Passed At Danger (SPAD) incidents also remained consistent with the previous year, as did numbers of more serious wrong side failures.

A.56 The region had some significant incidents. In May 2023, a broken high-speed (125mph) crossing was discovered at Colton Junction on the ECML. The undetected failure of this crossing had the potential to cause a major derailment. We continue to engage with Network Rail to understand what lessons have been learned to prevent a recurrence.

A.57 In July 2023, a lookout failed to notify a group of workers on live tracks of an approaching train. Fortunately, the group realised a train was approaching and

moved clear with 10 seconds to spare. We challenged Network Rail to explain why staff had been allowed to use lookout protection when this is acknowledged to be the least safe option.

A.58 Recent years have seen several occasions where trains have travelled too fast, through critical junctions or over track, in hot or poor weather conditions. There were two more this year, at Wood Green and Melton Lane level crossing. We continue to engage with Network Rail to ensure that risks of over-speeding are reduced.

A.59 Some of these incidents are or have been the subject of Rail Accident Investigation Board (RAIB) investigations such as at Spital Junction near Peterborough where changes have since been made to the signalling on approach, and at Wood Green near Alexandra Palace where the arrangements for implementing speed restrictions by Network Rail in hot weather (including competency of staff) was identified as a causal factor.

Annex B: Performance of Network Rail's North West & Central region

Summary

North West & Central was the second best performing of Network Rail's regions in Year 5, as measured by its scorecard performance. However, it did not meet its scorecard target. It delivered strongly on renewals effective volumes and freight cancellations and delivered enhancements on time. However, it failed to deliver most of its safety scorecard measures and financial performance was poor. Passenger train service performance declined during the year and while freight performance improved, it was not satisfactory. Track reliability has been a continued challenge.

Overview

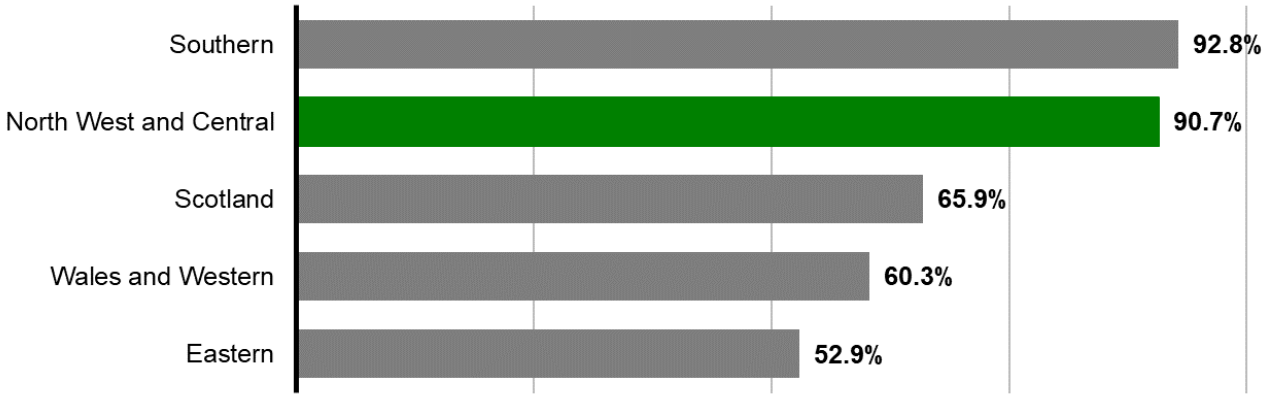
B.1 Network Rail's North West & Central region runs from London Euston and London Marylebone in the south to Gretna near the Scotland and England border. This annex focuses on Network Rail's delivery in the region's three routes of North West, Central and West Coast Main Line South, which is the busiest mixed-use railway in Europe.

Headline performance during Year 5

B.2 Network Rail measures its regions' overall performance using scorecards which contain a range of performance measures. Overall performance is expressed as a percentage, with 100% being on target.

B.3 North West & Central achieved 90.7% on its scorecard for the year. As illustrated in Figure B.1, this was the second highest scorecard achievement of all regions.

Figure B.1 Overall scorecard performance by region, annual data, April 2023 to March 2024



Source: Network Rail's regional comparison scorecard

B.4 The region did better than the majority of its Year 5 scorecard targets, including in freight cancellations, the majority of its customers targets, enhancement milestones and accelerations, effective volumes, environmental sustainability, passenger satisfaction and complaints handling. It missed its scorecard target in other areas including On Time, most of its safety targets, some customer targets, financial performance and employee engagement.

Passenger train service performance declined and improvements in freight performance stalled

Train service performance declined for passenger services and while freight performance improved, the region did not manage to fully return it to acceptable levels. The region has responded to our concerns about train performance by producing a recovery plan. The activities in the plan are delivering benefits, however the region needs to make sure that train performance improves.

Passenger and freight train service performance

B.5 Between April 2023 and March 2024, Network Rail's contribution to passenger train performance in North West & Central continued to decline, albeit at a slower rate than in Year 4. On Time (whole industry) performance increased slightly from 63.2% in Year 4 to 63.4% in Year 5.

B.6 Network Rail-attributed delay in the region was 1.93 minutes per 100 train kilometres (CRM-P) in Year 5, compared to 1.82 in Year 4 (April 2022 to March 2023). There was a slower rate of decline than in Year 4, but the region ended the year 0.13 below (worse than) the regulatory floor. Network Rail-attributed delay stabilised in the second half of the year.

B.7 Performance as measured by CRM-P began to converge across the region's three routes, but each route followed markedly different trajectories. Central route continued to improve off the back of Project Greenlight, the programme of train performance improvement which it initiated in Year 4. After a sharp deterioration at the start of the year, West Coast South steadied train performance in the second half of the year. However, performance on the North West route continued to decline throughout the year.

B.8 Freight performance (as measured by the regional Freight Delivery metric (FDM-R)) improved to 91.5%. However, while improvement was achieved in the first half of the year, freight performance improvements stalled in the last few months of the year and ended 1.6 percentage points below (i.e. worse than) our regulatory floor. Industrial action had a significant impact on FDM-R in Year 4 and its resolution had a commensurate impact on FDM-R improvement in Year 5.

Train performance was impacted by storms and asset failures

B.9 During the year, we further escalated poor train performance with the region, reflecting that both the regulated measures for passenger and freight train performance (CRM-P and FDM-R) had breached the regulatory floor that we had set. We enhanced our monitoring of the region's performance and of its delivery and further development of its recovery plans.

B.10 The region has taken a wide range of actions to address train performance including focusing on flooding sites, trespass and vandalism, cable theft, points failures, incident recovery, reducing temporary speed restrictions and addressing points reliability. The region's freight recovery efforts focused on strengthening the reliability of key locations such as Kingsbury and Peak Forest.

B.11 Axle counter and points failures were an increasing driver of higher delay across the region. We note that the time taken to recover from incidents has increased. Network Rail must work closely with operators to identify the reasons and fix this.

B.12 Severe weather was also a major contributor to delay in the autumn and winter. The region experienced more benign summer weather when compared to the exceptionally high temperatures of summer 2022. This resulted in track delays

improving. This was particularly evident on West Coast South, where the route reduced the moving annual total of delay due to track faults by over 40,000 minutes compared to Year 4. However, the region had to contend with a succession of named storms over the autumn and winter months. The impact of these weather events counteracted improvements that the region expected from its performance recovery plan. We will continue to monitor the resilience of the region's infrastructure and operations to the increasing frequency and intensity of weather events. The region must also make sure that its performance recovery actions are sufficient to improve train performance.

Timeliness of network access applications

B.13 Following extremely late track access applications for the May 2023 timetable change, we launched a review into track access applications in the region. This was because the late submission of the applications put the requested changes and associated customer benefits at risk. The review looked at the reasons for the late applications by Chiltern Railways and West Midlands Trains as well as the region's access processes and why insufficient evidence was provided to support the allocation decision.

B.14 Our review concluded that the region needed to prioritise actions from the recent independent reporter review of the capacity allocation process (see the System Operator chapter) and build its capability on access processes. We were pleased to see the region and operators were timelier and provided better information for the December 2023 timetable change. The continued progress by the region was evidenced by its efforts in completing the necessary work for it to implement periodic review 2023 in its contracts.

Strong asset renewals delivery but track reliability remains a challenge

The region's asset sustainability declined. While the region achieved most of its asset renewals plans, track reliability continued to be of concern.

B.15 Network Rail must maintain and renew its assets in an efficient, sustainable way to support railway operations. We measure this using the Composite Sustainability Index (CSI), which compares asset sustainability to the end of CP4. North West & Central finished the year with a CSI of –2.7%. This represents a decline in overall asset sustainability of 2.7% since the end of CP4.

B.16 As CSI is slow moving, we complement our monitoring of it by looking at other asset management metrics, including measures of asset reliability, and maintenance and renewals delivery.

Track asset reliability needs further improvement

B.17 The reliability of assets in North West & Central as measured by the Composite Reliability Index (CRI), finished the year with a score of 0.3% against a scorecard target of 1.6%.

B.18 This means the region is 1.3 percentage points below its annual scorecard target, and 0.3% better than it was in the final year of Control Period 5 (CP5).

B.19 CRI is a composite measure and within it the reliability of track caused particular concern throughout the year. Track reliability remains significantly below the region's target. We escalated our concerns with track reliability in Year 4 and the region provided us with its improvement plan. Despite these efforts, track reliability continued to be a challenge for the region in Year 5. The region has maintained a focus on the reliability of track and while track reliability has been improving, reliability is worse than it was at the end of CP5.

B.20 We are maintaining our oversight of asset reliability to make sure that the region's plan translates into tangible results.

North West & Central largely delivered its asset renewals plans

B.21 We scrutinise Network Rail's delivery of vital asset renewals work and whether this is in line with planned volumes for each year of the control period. As part of our assessment, we look at Network Rail's delivery of effective volumes. This refers to the volume of work undertaken in key asset areas, attributing weightings based on life added to the asset by each type of work.

B.22 North West & Central delivered a high volume of renewals work in Year 5 and reached an overall 135% of its effective volumes plan.

B.23 Out of six asset groups, four exceeded their asset renewal targets, while the remaining two, plain line and structures, fell just short of their targets (97% and 98% respectively).

B.24 North West & Central remains behind on structures examinations. At period 13, the region was significantly underdelivering against its plan with 681 detailed examinations behind the forecasted volumes for detailed examinations (reporting)

and 310 exams behind the forecasted volumes for visual examinations (reporting). These volumes will significantly impact next year's recovery plan.

North West & Central was the best performing region for environmental sustainability, but missed some of its environmental targets

B.25 North West & Central was the only region to exceed its Environmental Sustainability Index (ESI) target for the year (103.8%). The region exceeded target for non-hazardous waste diverted from landfill, despite some challenges around increased waste arising during parts of the year from significant projects. The region also exceeded its target for reducing non-traction carbon emissions.

B.26 The region did however miss its target for percentage of non-hazardous waste reused and recycled, and the reduction of non-traction energy use. We are keen to see performance improve in both these areas in the first year of CP7, to support performance reporting for scope 1 and 2 carbon emissions and circular economy (waste reused).

North West & Central delivered key Transpennine Route Upgrade projects

B.27 Network Rail transferred the management of the Transpennine Route Upgrade (TRU) Programme from its Eastern to its North West & Central region in Year 5.

B.28 North West & Central completed various TRU projects in Year 5 including the reinstatement of platform 2 at Castleford to accommodate a class 195 train in a 2x2 configuration; a new station at Morley, including level crossing closure; and re-control at Batley. The Hope Valley Capacity project was completed in March 2024 and is expected to enhance network capacity and improve journey times between Manchester and Sheffield. These projects were delivered while minimising disruption to rail users. The first electric train on the route between Stalybridge and Manchester has been run as part of testing and commissioning.

B.29 Network Rail and West Midlands Combined Authority collaborated to successfully deliver University Station in Birmingham. The new station building will greatly increase capacity and provide passengers with enhanced facilities.

B.30 However, North West & Central experienced delays to other enhancement projects, including Wigan to Bolton electrification, lifts at Barnt Green station and power supply between Bushey and Acton Lane. These delays resulted from contractual issues, resources challenges, time taken to comply with approval processes and affordability concerns. Some of these delays were outside Network

Rail's control but it is crucial that decision-making is improved to ensure milestones are achieved.

B.31 We note that the region is working with the UK Government and HS2 Ltd to understand the impact of the decision to cancel HS2 Phase 2 and the establishment of Network North on interfacing projects. These include the redevelopment of London Euston Station, West Coast Mainline North and Crewe. We will continue our scrutiny of these interfacing projects and Network North once we have a confirmed list of projects.

North West & Central delivered strongly on efficiency

North West & Central delivered 22% more efficiencies than its original CP6 target, slightly short of its revised CP6 delivery plan target. Financial performance in the region continued to decline primarily due to compensation payments to train operating companies for poor performance.

B.32 North West & Central delivered £179 million of efficiencies in Year 5, outperforming its original CP6 target of £151 million by 19% but was 4% behind its in-year delivery plan of £187 million which included further stretch. The shortfall was driven by workforce reform efficiencies not materialising, resulting in a reforecasting within the year. The LEAN (implementing a culture of continual improvement) programme also delivered fewer efficiencies than planned.

B.33 The region delivered £709 million efficiency saving over CP6 exceeding our original CP6 target of £583 million by 22%. But it was slightly behind its revised CP6 delivery plan of £717 million (down 1%). The region's key efficiency savings across the control period were achieved from delivering outputs with lower activity and improvements in work delivery capabilities.

B.34 With Year 5 being the last year of the control period, Network Rail's leading indicators look forward to the region's readiness in delivery for Year 1 of control period 7 (CP7). The region's leading indicators suggest that 79% of its efficiency improvements have been completed or have well-developed plans, with the remaining 21% of improvements having minimal plans in place.

B.35 The region has 64% of its renewals activities authorised for Year 1 of CP7, three percentage points below the national average. 75% of the region's disruptive access has been secured for engineering works, in line with the national average (75%).

B.36 In Year 5, North West & Central financially underperformed by £169 million. A large portion of this was attributable to compensation payments to train operating companies due to poor train performance. Another major area of underperformance was maintenance costs due to increases in subcontractor expenditure.

B.37 Further analysis of the region's financial performance will be carried out in our Annual Efficiency and Finance Assessment, which examines the financial performance in relation to the region's CP6 delivery plan. This is scheduled for publication in autumn 2024.

Health and safety targets for the year were not met

The region's health and safety performance was mixed. We took enforcement action on the safety of passenger flow management at London Euston station. The region has completed its roll out of active warning technology at level crossings.

B.38 Our overall assessment of the region's safety leadership is that it has knowledgeable, experienced leaders who have the capability to aim for and realise health and safety and engineering improvement.

B.39 Our assessment of overall occupational health and safety performance is that the region did not see significant change on previous years in most areas of reporting. The region achieved a workforce and contractor fatality weighted index of 0.077, an increase (worsening) on the figure at the end of Year 4 of 0.060. The long-term injury frequency rate (LTIFR) also increased (worsened) marginally from 0.296 last year to 0.306 this year. The year also saw a 32% increase in signals passed at danger (SPAD), from 57 in Year 4 to 75 in Year 5. There were no worker or public/passenger fatalities in the year.

B.40 We engaged with the region regarding changes at London Euston station to customer information screens. These have affected passenger flows, especially at times of disruption and at peak times. We investigated a series of complaints in June and July 2023 and, in response to identified failings, took enforcement action requiring a suitable and sufficient risk assessment to identify improved controls and strengthened management arrangements at the station, which Network Rail complied with.

B.41 Following a fatality at a level crossing in March 2023, our subsequent investigation identified delays with installation of active warning technology at level crossings.

The application of technology at level crossings was part of the region's strategy for which funding had been ring-fenced. We accepted the response from the region's senior leadership, committing to deliver the programme by the end of CP6. This was achieved.

B.42 The start of 2024 saw a number of earthwork and drainage related incidents in the region, such as an embankment failure at Launton in January, a landslip at Long Lawton in February, another one near Wellington, and a washout leading to derailment at Grange-over-Sands, both in March. We continue to investigate these and will act if necessary.

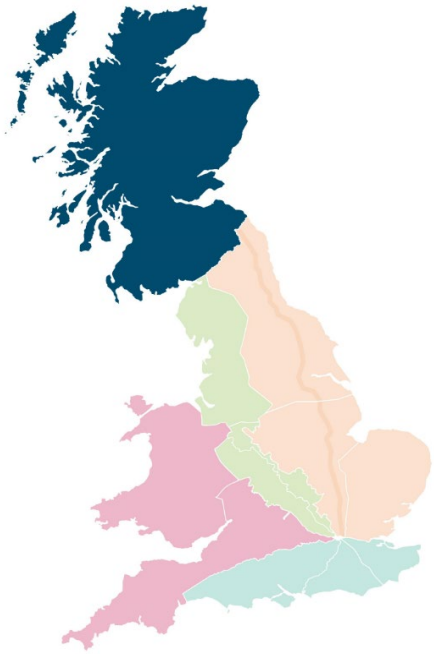
Annex C: Performance of Network Rail Scotland

Summary

While Network Rail Scotland's delivery of train service performance for passengers and freight improved slightly in the final year of CP6, it remained below target. Adverse weather continued to present a significant challenge. Network Rail Scotland exceeded its planned asset renewals volumes and delivered on its efficiency savings for the year.

Overview

C.1 Network Rail Scotland manages Scotland's rail infrastructure covering a large area from the Borders to Wick and Thurso in the far northeast of Scotland.



C.2 Most rail services in Scotland from April 2023 to March 2024 were operated by ScotRail Trains Limited (ScotRail). Caledonian Sleeper, London North-Eastern Railway (LNER), Lumo, Avanti West Coast (AWC), CrossCountry, TransPennine Express (TPE) and freight train operators also ran services both within Scotland and between Scotland and England.

Headline performance during Year 5

C.3 Network Rail Scotland missed its performance target for the main passenger operator in Scotland, ScotRail, and its target for freight performance. However, it achieved its performance target for the Caledonian Sleeper service.

C.4 During the year, the company worked collaboratively with ScotRail to establish train service performance improvement plans. This work was overseen by the Performance Improvement Executive – a forum attended by Network Rail Scotland, ScotRail and Scottish Rail Holdings (an organisation established by Scottish Ministers to oversee train operating companies in Scotland) and observed

by Transport Scotland and ORR. This forum is aimed at improving the reliability of the whole railway in Scotland, for example improving infrastructure, and working to reduce the number of trespass incidents.

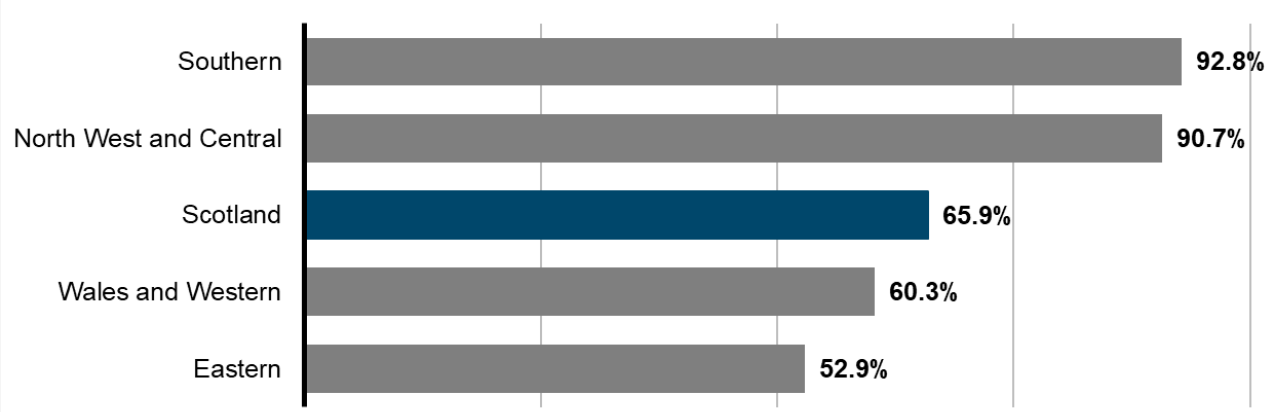
C.5 Network Rail Scotland exceeded its original CP6 efficiency target and its Year 5 delivery plan efficiency target. It did well in Year 5 to make up lost efficiencies from backdated pay awards and delays in maintenance modernisation. Key efficiency savings in CP6 were made in contracting strategies, supply chain management, optimisation of access and workplace reform. While Scotland delivered on its efficiencies, it did underperform financially. This means that net of income, the company spent more for what it delivered than it was funded to deliver. This was largely due to additional Schedule 8 payments to train operators brought on by extreme weather and underperformance in renewals with Scotland having to reprioritise its workbanks to remain within its funding budgets.

C.6 Network Rail Scotland's health and safety performance was strong. Management arrangements are in place and Network Rail Scotland effectively controlled health and safety risks from its activities. That said, improvements are needed in basic health, safety and welfare facilities and practices at depots and similar premises.

C.7 Network Rail measures its regions' overall performance using scorecards which contain a range of performance measures. Targets vary across regions, and those in Scotland reflect the specific and stretching requirements of Network Rail Scotland's funder, the Scottish Government (for further information on Network Rail Scotland's requirements for CP6 see Annex 1 of our PR18 Final Determination).

C.8 As shown in Figure C.1 below, in Year 5 of CP6 Network Rail Scotland achieved 65.9% of its scorecard (with 100% being 'on target'). Both Customer Contact Management and Personal Accountability for Safety performed significantly better than all other regions and Effective Volumes (renewals) performed significantly better than target.

Figure C.1 Overall scorecard performance by region, annual data, April 2023 to March 2024



Source: Network Rail's regional comparison scorecard

Performance improved for both passenger and freight services

Train service performance improved slightly from the levels seen in Year 4 but remained below the CP6 target. Weather and external events remained the most significant causes of Network Rail Scotland's delay.

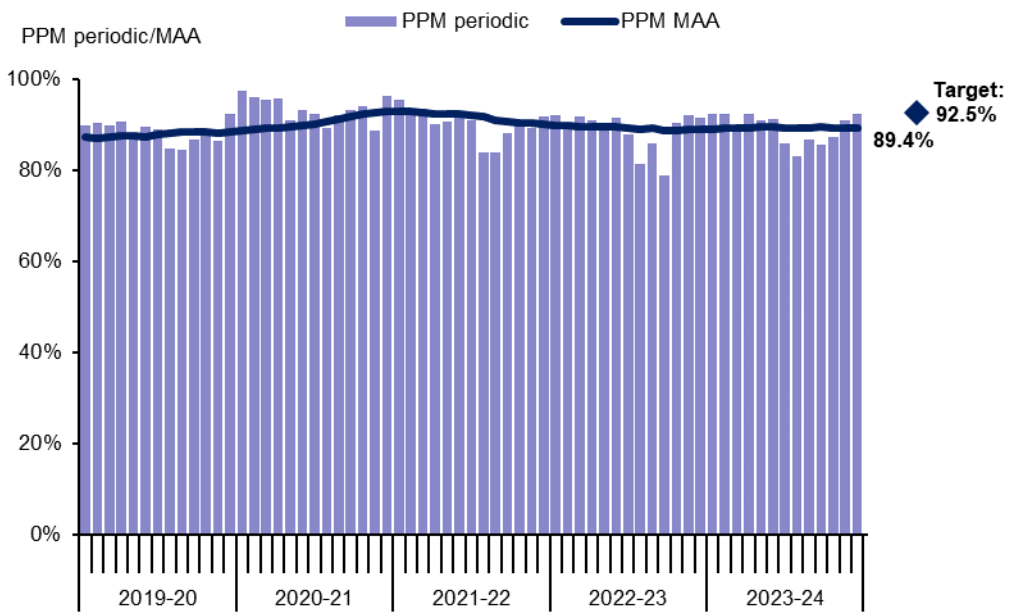
Passenger train performance was mixed

C.9 In our periodic review 2018 (PR18) final determination, we set specific targets for Network Rail Scotland's train performance, reflecting the level of performance that Scottish Ministers expect it to deliver. For passenger services, in each year of CP6, we hold Network Rail Scotland to account for its delivery of:

- ScotRail Public Performance Measure (PPM) target of 92.5%. PPM is the percentage of planned trains arriving at their final scheduled destination early or less than five minutes after their scheduled arrival time having called at all their planned stops; and
- Caledonian Sleeper Right Time Arrival (RTA) target of 80%. RTA measures the percentage of trains arriving early or within 59 seconds of their scheduled arrival time.

C.10 ScotRail's PPM Moving Annual Average (MAA) steadily improved throughout Year 5 to finish at 89.4%, 3.1 percentage points below target (see Figure C.2).

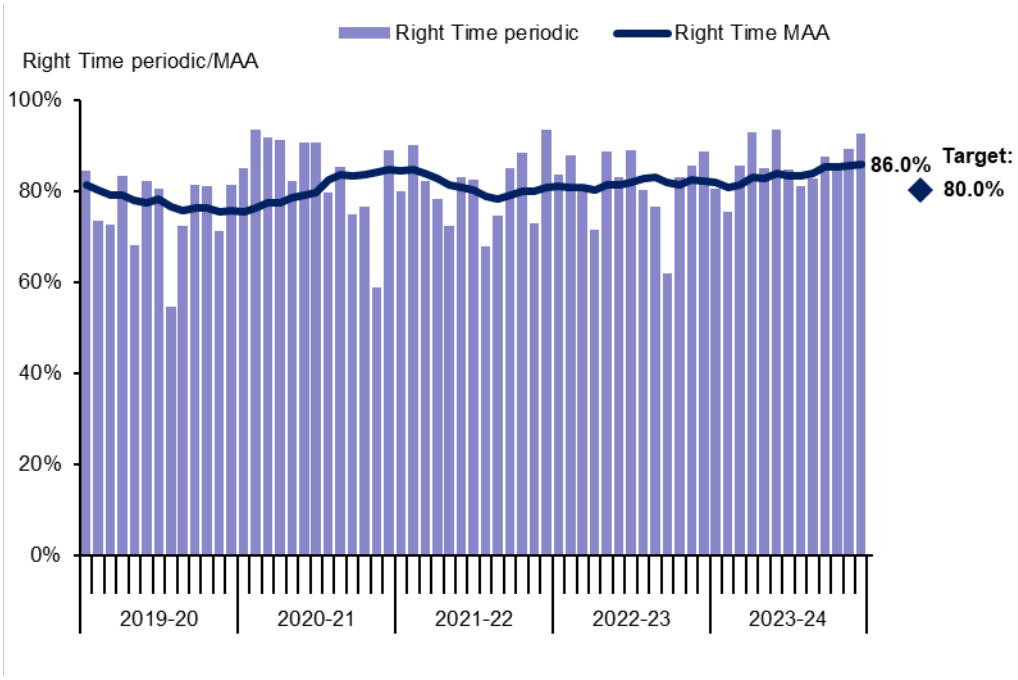
Figure C.2 ScotRail PPM, periodic data, April 2019 to March 2024



Source: ORR analysis of Network Rail data

C.11 As shown in Figure C.3, Caledonian Sleeper RTA MAA exceeded target at the end of Year 5 by 6 percentage points at 86.0%.

Figure C.3 Caledonian Sleeper RTA, periodic data, April 2019 to March 2024



Source: ORR analysis of Network Rail data

C.12 We primarily hold Network Rail Scotland to account against its PPM and RTA targets. However, in the event of PPM or RTA performance being below target, we also use a consistent regional measure of Network Rail-attributed delays known as Consistent Route Measure-Performance (CRM-P). Achievement of PPM and RTA targets relies on actions by both Network Rail Scotland and the train operators. CRM-P provides us with insight on Network Rail Scotland's specific contribution to overall network performance. This measure also allows comparisons across Network Rail's regions.

C.13 CRM-P is the delay minutes to in-service passenger trains attributed to Network Rail from incidents occurring in each Network Rail region, per 100 train kilometres. A lower score reflects better performance.

C.14 For CP6, we set Network Rail Scotland the most challenging performance targets of all the regions, reflecting the expectations of its funder (the Scottish Government). Despite initial improvement across the year as a whole CRM-P worsened slightly and at period 13 of Year 5, Scotland delivered a CRM-P MAA of 1.33. This was worse than the target of 0.99 and the floor of 1.04. Despite this, Scotland is currently delivering the best national CRM-P MAA result and has done so for the majority of CP6.

C.15 Although CRM-P fell below the regulatory floor we have not launched a formal investigation because Network Rail Scotland has provided good evidence that it understands the drivers of poor performance and has been proactively seeking to improve it, including through the Performance Improvement Executive and its Joint Performance Improvement Plan (JPIP).

C.16 All delay minutes categories increased (worsened) during the year. Severe weather and external events (this includes areas such as vandalism, trespass and police activity) were the most significant causes of delay and showed the largest increase during the year.

C.17 Network Management/Other delays (this includes issues with Network Rail operations and timetable problems) were impacted by Automatic Route Setting (ARS) issues in the Dalmuir area. Earlier in the year, this location had the highest count of ARS failures in Great Britain. A Temporary Speed Restriction (TSR) between Clydebank and Dalmuir exacerbated the issue, affecting the decisions ARS was making. A solution was implemented in June, which reduced issues by 50%. Removal of the TSR then reduced the residual delay by a further 80%.

C.18 During the year it was noted that 80% of Trespass and Vandalism delays were driven by trespass, this category being 69% over target. Trespass incidents are often more prevalent in the summer but increases during the year were above normal trends. Network Rail Scotland spent £0.7 million on mitigations, including installing portable droids to act as visual deterrents to decrease platform to platform trespassing and improved lineside fencing. Known hotspot areas, including Priesthill, Darnley and Hamilton Central were subject to targeted interventions following analysis of data.

C.19 Severe Weather was the most significant cause of delay minutes during the year as well as points and track circuit failures. This was in part due to extreme rainfall events manifesting as flooding on 7 and 8 October 2023, Storm Babet from 18 to 21 October 2023 and general impact of Blanket Emergency Speed Restrictions and weather-related service changes from 27 to 30 October 2023.

C.20 A range of responses were deployed including:

- the increased use of Railhead Treatment Trains and Multiple Purpose Vehicles in autumn (compared to previous years).
- leaf fall teams remaining in place for longer than previous years;
- selected removal of station calls from some services during autumn;
- drones being used to assess the infrastructure; and
- 10 new Traction Gel Applicators put in place before autumn 2024.

Freight performance steadily increased from the previous year; it remained below target but above the regulatory floor

C.21 We hold Network Rail to account for its contribution to freight train performance. For CP6, we measure this using a regional freight delivery metric (FDM-R), which is the percentage of commercial freight services that arrive at their planned destination within 15 minutes of their booked arrival time, or with less than 15 minutes of delay caused by Network Rail or another operator that is not a commercial freight operator. For Year 5, Network Rail Scotland's target for FDM-R was 94.5% with a regulatory floor set at 92.5%.

C.22 Network Rail Scotland's freight performance steadily improved throughout Year 5. At period 14, Scotland delivered an FDM-R MAA of 93.1% below the 94.5% target, but above the regulatory floor of 92.5%. Network Rail Scotland delivered the best national FDM-R MAA result and did so for a significant part of CP6.

C.23 Neither the performance strategy nor the JPIP contains specific reference to performance improvements to freight services. It may therefore be useful to refer to this in future revisions of the documents. However, many of the schemes included, particularly those delivered by Network Rail Scotland, will benefit all operators (both passenger and freight) in Scotland.

Network Rail Scotland and ScotRail joint train performance improvement plan

C.24 In response to deteriorating train service performance Network Rail Scotland and ScotRail committed to a joint performance improvement plan (JPIP) to support the performance strategy, aimed at addressing the key drivers of poor performance.

C.25 The JPIP included interventions for both Network Rail Scotland and ScotRail to deliver, including improvements to winter plans, targeted works to reduce the need for blanket emergency speed restrictions at high-risk earthworks sites and deployment of high visibility remotely monitored cameras to reduce level crossing misuse and incidents of trespass.

C.26 For Year 5, Network Rail Scotland and ScotRail prepared an updated JPIP which contained a comprehensive range of performance improvement schemes, covering fleet, traincrew, customer operations, Network Rail infrastructure, external delays, autumn and seasonal delivery, and network management.

C.27 A range of challenges occurred during the year. At Dalmuir, the highest number of ARS failures on the network presented performance challenges. Fleet reliability was also challenging. Work to tackle adhesion issues was developed during the year, including more targeting of actions, cryogenics trials, water resistant sand and more use of drones to inspect railheads. Further developments to the winter management approach were made, while a range of visits to other regions to learn from best practice took place. A major infrastructure issue at Pass of Brander on the Oban line required a range of solutions to be implemented – both physical interventions and others to reduce the impact of the restrictions on the network.

C.28 For Year 1 of CP7, a revised Joint Performance Strategy has been created. This has a whole-system approach to performance management, using the industry-standard Whole System Performance Model. Plans cover all functional areas, with some focused on those areas identified as particular challenges – for example anti-social behaviour. There are also some plans to target individual sub-sectors (lines of routes) where additional focus is deemed appropriate. Each plan includes an owner, a performance improvement target, detail of sub-activities included, and measures of success.

C.29 We will continue to closely monitor delivery of the performance strategy throughout the year.

Use of the Performance Innovation Fund (PIF)

C.30 To help improve performance, Network Rail Scotland used funding from the Performance Innovation Fund (PIF) to deliver new initiatives. In CP6, the Scottish Government contributed £4 million to the Great Britain £40 million fund.

C.31 In CP6 Network Rail Scotland has spent a total of £5 million on seven PIF schemes. PIF projects which have been successfully completed to date include the fitment of Global Positioning System (GPS) trackers to the ScotRail High Speed Trains, snow drift fencing, Double Variable Rate Sanders (DVRS) and the use of innovative methods for clearing autumn leaf fall (smart cryogenics).

Access and licensing: capacity and access to the network

C.32 Network Rail Scotland continues to need to improve its management of processes for allocating capacity through access rights and for connection contracts, which ensures the responsibility for different pieces of infrastructure are clearly assigned.

C.33 Network Rail Scotland continued to submit passenger track access contracts less than 12 weeks before the timetable started in Year 5. We escalated this issue and Network Rail Scotland provided appropriate remedial action and resolved it.

C.34 Network Rail Scotland did make some progress in Year 5 on some of the eleven connection contracts which had not been kept up to date. However, there remained four which could not be approved because of unclear information on the costs involved in the contracts. We will continue to monitor this closely particularly as the issue has now also become about management of connection contracts across Network Rail and the implementation of the cost model.

Network Rail Scotland delivered more renewals than planned

Delivery of renewals in the year was strong and Network Rail Scotland overdelivered against planned volumes across all asset types. A highlight for Scotland was the successful completion of the Carstairs renewal.

Asset sustainability finished CP6 below the regulatory floor

C.35 Network Rail must maintain and renew its assets in an efficient, sustainable way to support railway operations. We measure this using the Composite Sustainability Index (CSI) which compares asset sustainability to the end of CP4.

C.36 Scotland finished the year with a CSI of 1.5%, against a target of 2.9% and the floor of 2.4%. Whilst this implies a 1.5% increase in overall asset sustainability since the end of CP4, Scotland's asset sustainability declined in CP6 more than forecast.

C.37 As CSI is slow moving (because of the long life of railway assets), we complement our monitoring of it by looking at other asset management metrics, including measures of asset reliability and maintenance and renewals delivery.

Asset reliability finished the year 12.4% below target

C.38 Network Rail Scotland's asset reliability, as measured by the Composite Reliability Index (CRI), did not achieve its target. It ended the year with a CRI score of 17.1% against a target of 29.5%.

C.39 This means that Network Rail Scotland was 12.4 percentage points below its annual scorecard target, but 17.1% better than it was in the final year of CP5. However, we need to take into account that Scotland had set ambitious targets, aiming for significant improvements in asset reliability.

C.40 At the end of the year Buildings, Points, Signalling and Track did not achieve target. The disciplines contributing most to the adverse position were Signalling and Buildings. Electrical power, Structures and Telecoms achieved target.

Delivery of renewals volumes was exceeded across each asset discipline

C.41 It is vital that Network Rail's regions renew assets that have come to the end of their useful lives in a timely way. We monitor delivery of 'effective volumes' in six key asset types for each year of the control period against its plans.

C.42 Table C.1 shows that Network Rail Scotland outperformed its asset renewal effective volumes in Year 5. It exceeded its plan for all six asset types.

C.43 Overall, Network Rail Scotland delivered 114% of its planned effective volumes, for Year 5. Earthworks, signalling, structures-bridges, track plain line, track switches and crossings and overhead line equipment (OLE) rewire and mid-life

refurbishment were all above target due to additional scope at various locations and project reprioritisation and the rephasing of the workbank for earthworks.

Table C.1 Effective volumes (renewals), Network Rail Scotland, annual data, April 2023 to March 2024

Actual and plan numbers are rounded; the percentage complete is calculated from unrounded numbers. A percentage complete in excess of 100% indicates delivering more than the planned volumes.

Key: **G** (Green): Above planned volumes **R** (Red): Below planned volumes

Asset	Actual	Plan	Completion	Percentage complete
Earthworks	86	64	G	134%
Overhead line equipment	10	9	G	108%
Track: Plain line	168	155	G	109%
Track: Switches and crossings	69	50	G	138%
Signalling	414	398	G	104%
Structures: Bridges	2,943	2,304	G	128%
All assets (weighted total)	*Not applicable*	*Not applicable*	G	**114%**

Source: ORR analysis of Network Rail data

C.44 Network Rail Scotland delivered more planned renewal volumes than set out in its delivery plan for Year 5, largely due to unspent provisions in the risk fund for industrial action being allocated out to reinstate previously deferred renewals and additional performance improvement schemes. This included for example:

- a programme of targeted component renewals on point assets in high traffic areas (Finnieston, Airdrie, Coatbridge Sunnyside);
- track renewals in key areas such as Glasgow Central and Charing Cross;

- further re-rail activities on the Balloch Branch; and
- switch and crossing renewals in various locations (Bridge Street, Lochwinnoch).

C.45 In addition to these works, Network Rail Scotland delivered additional plain line and switches and crossings renewals on the Carstairs project.

C.46 Network Rail Scotland also delivered additional structures renewals through under/overbridge works. This was partially offset as Ravenscraig West Coast Main Line crossing was deferred to CP7/CP8 due to Network Rail being unable to infill the structure as there is a combined sewer running below the bridge.

Carstairs renewal successfully completed in Year 5

C.47 The Carstairs renewal was the most significant renewal project in Scotland in CP6. It included re-configuring and renewing the existing track, along with associated signals and overhead lines, and improvements to Carstairs railway station platform. Renewing such a key junction on a critical cross-border route was a significant undertaking.

C.48 The Carstairs renewal project was successfully completed in Year 5 after significant impact from industrial action earlier in CP6. Although the project reported a slight increase in overall costs for the year, the project team worked collaboratively with supply chain partners to manage and mitigate the impact on the project and ensure successful delivery.

C.49 This renewal will mean that cross-border journeys are now more reliable for passengers and freight travelling to and from Scotland.

Network Rail Scotland was not compliant with requirements for structures examinations

C.50 Overall, Network Rail Scotland did not meet its structures examinations year-end compliance targets. It needs to improve its processes for the examination of structures and reduce its backlog. Although Network Rail Scotland finished the year behind forecast the volumes may be recoverable within the next control period (CP7) if resources are properly allocated.

C.51 At period 13, structures examinations in Scotland were underdelivering against the planned recovery trajectory, with 145 detailed examinations behind the forecasted volumes for detailed examinations (site) required by the recovery plans. For visual examinations (reporting), it shows a volume of 168 visual examinations behind the

forecasted volumes. Scotland attributed under-delivery to resource challenges such as long-term sickness and performance issues, supplier management issues and a high number of adverse weather events that directly impacted the delivery of examinations (which also required additional resources to undertake examinations resulting from these events). Although these volumes have improved slightly from period 12, these still have an impact on next year's recovery plan.

Network Rail Scotland did not meet its Environmental Sustainability Index target

C.52 The Environmental Sustainability Index (ESI) was introduced by Network Rail in Year 2 of CP6 and is comprised of measures assessing waste, carbon emissions and energy use.

C.53 Network Rail Scotland did not meet its ESI scorecard target, achieving 61.0% against the100% target. It was the second worst performer of all Network Rail regions.

C.54 It achieved its target for non-hazardous waste reused or recycled and the reduction in non-traction carbon emissions related to decarbonisation of the National Grid increasing more rapidly than Network Rail assumed at the start of the control period.

C.55 Network Rail Scotland was below target for other components of ESI: non-hazardous waste diverted from landfill and non-traction energy use. Contributory factors included issues in reporting waste management data and the benefits of investment in energy reductions having not been realised against forecast savings.

C.56 We are keen to see Network Rail Scotland continue to address these issues and improve performance in all these areas as it moves into the first year of CP7, to support performance reporting for scope 1 and 2 carbon emissions and circular economy (waste reused), and to underpin reporting of new measures such as scope 3 carbon emissions reporting.

Enhancements progressed well in the final year of CP6

C.57 Network Rail Scotland's enhancements have progressed well in the final year of CP6. In December, East Linton station and Barrhead to Glasgow Electrification were successfully authorised and entered into service.

C.58 Significant progress was also made on the Levenmouth Rail link and East Kilbride Enhancements projects during the year. On Levenmouth, the completion of key project milestones enabled driver training to start in January 2024.

C.59 Updates to the Scotland Enhancements Delivery Plan have not been published this year, and we continue to work with stakeholders to encourage a resumption of regular publication in CP7.

Network Rail Scotland delivered its CP6 efficiency savings for the year

Network Rail Scotland delivered on its efficiency savings for the year, exceeding ORR's original CP6 efficiency target of £314 million by 12% and its CP6 revised delivery plan target of £349 million by 1%.

Network Rail Scotland exceeded its CP6 trajectory for efficiency

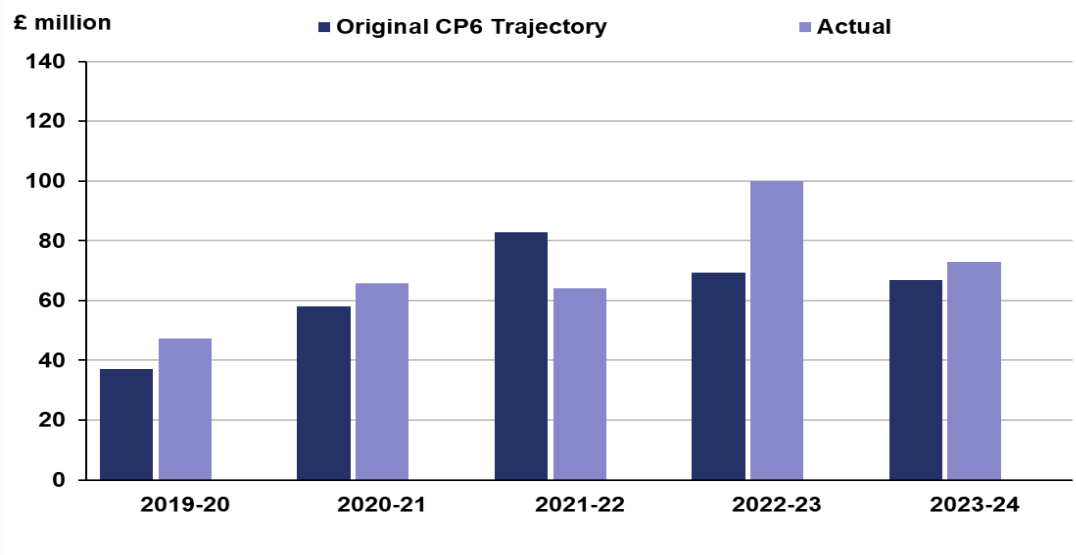
C.60 In Year 5, Network Rail Scotland delivered £73 million of efficiency savings. This was 9% above its original CP6 target of £67 million and 1% more than its In-Year delivery plan of £72 million. Network Rail Scotland did well to make up lost efficiencies from backdated pay awards, severe weather conditions and delays in maintenance modernisation initiatives.

C.61 The outperformance in the year is attributed to benefits from additional pay related savings, improvements driven by changes in standards and other small local initiatives performing better than anticipated.

C.62 During Year 4 of CP6, Network Rail Scotland reduced its revised CP6 delivery plan by 15% from £412 million to £349 million. This was primarily due to the changes made to renewals volumes in Year 4 and Year 5 due to funding challenges. The change in volumes led to a loss of planned efficiencies for Year 5 and was reflected in an update of Network Rail Scotland's delivery plan.

C.63 Network Rail Scotland delivered £351 million of efficiency saving over the control period, 1% above its revised CP6 delivery plan (£349 million) and 12% above its original CP6 target (£314 million) set in ORR's final determination (PR18). Key efficiency savings over CP6 were made in contracting strategies, supply chain management, optimisation of access and workforce reform.

Figure C.4 Efficiency improvements in CP6 for Network Rail Scotland, annual data, April 2019 to March 2024



ORR analysis of Network Rail data

C.64 As Year 5 was the final year of CP6, Network Rail's leading indicators look forward to Scotland's readiness to deliver for Year 1 of CP7. Network Rail Scotland's leading indicators suggested that, as of March 2024, 69% of its efficiency targets had completed or well-developed plans. 31% of efficiency targets had only minimal plans in place. This reflects the resetting of efficiency baselines for the new control period and new long term efficiency plans are being established. 61% of the region's planned renewals activities had been authorised, below targets set at 75% and the national average of 67%. 94% of the region's disruptive access for engineering works had been secured, 1% below the target of 95%. However, this was 19 percentage points higher than the national average of 75%.

C.65 Network Rail Scotland reported a financial underperformance of £34 million against its annual budget in Year 5. This was mainly attributed to the underperformance in Schedule 8 payments to train operators caused by extreme weather conditions and underperformance in renewals with Scotland having to reprioritise its workbanks due to funding constraints. The reprioritisation affected track, signalling and buildings work. Other contributing factors to the underperformance included the costs associated with performance improvement projects, increased utility costs and backdated pay settlements and the Carmont accident fine of £7.2 million for health and safety failings.

C.66 Further analysis of Network Rail Scotland's financial performance will be carried out in our Annual Efficiency and Finance Assessment (AEFA), which examines the financial performance in relation to its CP6 delivery plan. The AEFA is scheduled for publication in autumn 2024.

Scotland had no unallocated risk funding available going into Year 5

C.67 Going into Year 5, Network Rail Scotland had no unallocated risk funding available to manage any unforeseen risk. It had allocated its CP6 risk funding in the first four years of the control period to manage risk associated with the pandemic, industrial action, severe weather conditions and inflationary pressures. Risks were managed in the final year by reprioritising workbanks and using greater cost controls. In Year 4, Network Rail Scotland held provision for Schedule 4 payments as a result of industrial action. £20 million of the provision was not required and rolled into Year 5, which was used to manage additional costs associated with performance and renewals improvement projects.

National Function costs allocated to Network Rail Scotland were lower than planned

C.68 Costs incurred by Network Rail's National Functions are re-charged to regions in proportion to their use of services provided by these functions and in accordance with the ORR's CP6 regulatory accounting guidelines.

C.69 In CP6, £618 million was recharged to Scotland – around £60 million less than forecast in Network Rail Scotland's original CP6 delivery plan. This was possible due to savings across a number of central functions, namely as a result of economies of scale and through GB-wide initiatives such as workforce reform and reduced insurance expenses. During CP6, a number of central costs were devolved to Scotland, including Traction Power, Rates, Telecoms, On Track Plant and Property.

C.70 In terms of benefits delivered, throughout CP6 there were a number of technological and innovation developments which have benefited Network Rail Scotland delivered through funding for research, development and innovation (RD&I). Examples include:

- operational weather forecasting to manage services safely during extreme wet weather;
- unattended measurement on service trains – for early detection of track faults to prevent service affecting failures; and

- digital recording solutions for Signalling and Overhead Line Equipment to reduce maintenance services and surveying activities.

C.71 In addition, the Technical Authority worked closely with Scotland to use RD&I spend to part-fund the delivery of signalling system upgrades as part of the Far North Line enhancement scheme and also developed the Scotland's Railway Rural Signalling.

C.72 Separate to RD&I spend, Network Rail Scotland also made use of programmes delivered by Route Services. For example, early in CP6 it increased Earthworks remote monitoring (led by the Intelligent Infrastructure programme) following the fatal derailment at Carmont and telecoms for Driver Operator Only (DOO) CCTV, DOO mirrors and voice recorders.

There is strong and developing leadership in health and safety, with modest improvement on a number of key measures

Network Rail Scotland demonstrated strong and developing leadership on health and safety. There was modest improvement on a number of key measures. However, improvements are needed in basic health, safety and welfare facilities and practices at depots and similar premises.

Scotland health and safety performance

C.73 We saw strong and developing leadership on health and safety in Scotland. Our inspections found generally effective health and safety management arrangements in place across the range of Network Rail risks, but with some incidents arising from actions of individuals highlighting the vulnerability of risk control effectiveness. We noted a continuation of progress to improve the control of risk in areas such as track worker safety, drainage, weather resilience and workforce road risk. But there were also incidents reflecting the continuing vulnerability of safe operation to severe weather events.

C.74 Network Rail Scotland's performance showed modest improvement on a number of key measures. Its Fatality Weighted Index (FWI) fell from 0.146 at the end of Year 4 to 0.086 at the end of Year 5. Its long-term injury frequency rate (LTIFR) fell slightly from 0.225 to 0.195. There were no railway-related level crossing fatalities. The number of Signals Passed At Danger was almost unchanged at 28,

compared to 26 in Year 4. Serious infrastructure wrong-side failures (ranked 50+) fell significantly from 25 to nine this year.

Weather-related operational responses

C.75 Winter storms saw incidents in which trees were blown onto open lines. Some of these, including at Broughty Ferry and Braes of Murthly resulted in damage to trains, the former being quite significant. These and other incidents highlight the challenges presented by lineside trees, especially those on third-party land where Network Rail must work with the owners to secure removal. The challenges are not only to safe train operation but also to maintaining the integrity of the OLE.

C.76 The overall weather-resilience and climate change adaptation picture in Scotland is one of sustained and steady progress across disciplines in Network Rail Scotland, overseen and monitored by the weather resilience task force.

C.77 Overall, Scotland appears to be well-placed to meet the health and safety challenges going into CP7. The scale of those challenges should not be underestimated as new organisational arrangements and working practices continue to bed in on a railway with less asset renewal, a greater maintenance demand and the need to build the competence of a less experienced workforce.

Network Rail Scotland progressed action plans linked to post-Carmont taskforce recommendations

C.78 Network Rail Scotland has made good progress with actions to address recommendations arising from post-Carmont reports, with many nearing completion and closure.

Network Rail Scotland fell behind in delivery of some of Scottish Ministers' priorities but has made good progress on other areas

Network Rail Scotland continued to progress delivery of the Scottish Ministers' High Level Output Specification (HLOS) requirements. There have been some challenges throughout CP6 particularly with delivery of requirements relating to gauging, but Network Rail Scotland has made good progress in other areas. In particular, it has retained a strong focus on the need for freight growth.

C.79 In Annex 1 of our 2018 periodic review final determination we set a number of requirements for Network Rail Scotland to deliver throughout CP6. Many of these

requirements are unique to Scotland, reflecting what Scottish Ministers wanted Network Rail Scotland to deliver in this control period as set out in the HLOS.

C.80 To monitor progress against each of these requirements, Network Rail Scotland has an HLOS tracker which helps us to monitor its delivery of each of the HLOS requirements. We also engage closely with Transport Scotland on this.

C.81 Network Rail Scotland has continued to provide evidence of how it has closed out its CP6 HLOS requirements. Availability of funding impacted Network Rail Scotland's ability to deliver some measures, in particular improving quality of stations. Delivery of the Scottish Gauge requirement was complicated by failure to agree scope with Transport Scotland, but we note that there is a strategy in place for CP7 and some of the work done in CP6 has made gauging data more accurate.

C.82 Of particular note is the work that Network Rail Scotland did throughout CP6 on freight growth. It has worked collaboratively with the freight industry to identify opportunities and look for ways to incentivise new entrants.

C.83 Table C.2 below sets out in more detail the steps that Network Rail Scotland took to progress each HLOS requirement.

Table C.2 Network Rail's delivery of the Scottish HLOS requirements

Key: **G** (Green): On course **A** (Amber): At risk **R** (Red): Not on course

Requirement	Progress made in year 5 of CP6	RAG rating
Passenger journey time improvements: *develop a plan to deliver the passenger journey time requirements to deliver a minutes per mile target of 1.587 (by December 2019) and 1.576 by December 2024.*	At the end of CP6, there had been a deterioration in journey times and Network Rail Scotland did not achieve the target of 1.576 miles per minute by December 2024. Network Rail Scotland submitted its ScotRail Journey Time Plan to ORR on 31 March 2019. This plan was developed in collaboration with Abellio ScotRail. It sought to identify opportunities to improve journey times through for example the timetable or targeted infrastructure interventions. During the pandemic there were multiple timetable changes as restrictions and priorities on the railway changed, and reporting of the journey time measure (ScotRail average timetabled minutes per mile travelled) was paused. While the ScotRail franchise metric had not been reported since the pandemic, opportunities to remove	R

Requirement	Progress made in year 5 of CP6	RAG rating
	capacity constraints or increase line speed to better match rolling stock capability continued to progress via renewal workbanks or in conjunction with the enhancement pipeline. While Network Rail Scotland provided evidence of this work (particularly on improvements to the Inter7City routes) it has said that to date customers have seen little benefit from these works because the outputs have not been translated into improved timetables and journey times have deteriorated. Network Rail Scotland is taking action with a renewed focus in its CP7 Delivery Plan where it commits to developing a market-led timetable framework which will set out the timetable outcomes (including journey times) for each corridor of the railway in Scotland, based on Scottish Ministers' strategic objectives.	
Passenger satisfaction: *contribute to ScotRail NRPS targets for 'Overall satisfaction and How well the Franchisee dealt with disruption'.*	Based on the Wavelength survey run by the Rail Delivery Group (a cross-industry stakeholder group), passenger satisfaction in Network Rail Scotland remains the best of all regions. Network Rail Scotland achieved a Wavelength score of 8.10 (1 being poor and 10 excellent).	G
Quality of station services: *Maintain stations to the average asset condition in place at 31 March 2019*.	In CP6, Network Rail Scotland planned to deliver 80 station service improvements. By the end of CP6 it had delivered 41 of those schemes. As we reported in previous annual assessments, the pandemic led to the reprofiling of some work and there were budget constraints which meant that Network Rail Scotland was not able to deliver all of its planned work. Improvements were delivered at Anderston, Inverness, Aberdeen, Milngavie, Coatbridge, Sunnyside, Lanark, Wemyss Bay, Wallyford, Annan, Coatbridge, Drumry, Rannoch, Springburn, Williamwood, Garrowhill, Blantyre, Kilwinning, Blairhill, Carnoustie, Dundee, Cardenden, Craigendoran, Dalreoch, Holytown, Garve, Langbank, Longniddry, Newton on Ayr, Patterton, Prestwick Town, Salcoats, Whifflet, Woodhall, Rutherglen, Glengarnock, Leuchars, Dalwhinnie, Invergowrie, and Barrasie stations.	R

Requirement	Progress made in year 5 of CP6	RAG rating
Freight journey times: *increase the average speed of freight trains by not less than 10%.*	The MAA speed for the year was 37.99 mph (MAA) which was 3.3% ahead of baseline. Year 5 was -1.51% behind MAA at the end of Year 4. The main reasons for not achieving target were: • Carstairs diversions – slower speed and longer diversions which impacted 2 periods last year as opposed to 1 period in Year 4 • Introduction of a new Royal Mail Daventry to Shieldmuir train which is timed below the 71.63 mph baseline for Class 1 trains. • The Russell's transfer of the daily Blackford train from Mossend to Coatbridge – customer required trains from Blackford to drop off wagons at Mossend so amended the schedules to include a 3 hour stop in Mossend Yard which, as the agreed metric for average speed does not deduct the times trains are looped or stabled, resulted in average speed for the daily Blackford to Coatbridge train reducing from 38.56 mph to 10.25 mph. • The closure of Ayr station due to the hotel fire meant that the Prestwick aviation fuel train had to run to Mauchline to run-round to get into the sidings at Prestwick (previously ran round at Ayr station) – additional mileage and journey time reduced average speed. One of the big issues was the customer decision to switch from electric locos to diesel when the costs of electricity for traction increased. This meant that customers bid for new paths which were slower as diesel locos do not have the same acceleration as electrics so the trains could not keep to the same sectional running times. Using diesel locos also resulted in some trains having additional time put in schedules to refuel at Carlisle.	A

Requirement	Progress made in year 5 of CP6	RAG rating
Freight growth: *facilitate growth of 7.5% in rail freight traffic carried on the Scotland route by end of CP6 as measured by net tonne miles.*	Network Rail Scotland ended the year -10% behind baseline (CP5 exit) and -16.3% adverse to target (cumulative), -2.6% adverse to Year 4. New traffic, that started in CP6, exceeded the original growth target of 32 million net tonne miles (ntm) by 53% and accounted for 15% of total ntm in Year 5. The economic downturn and resulting constriction of the building trade, reduction in consumer spend, inflation levels/price increases/materials shortages and port congestion/global supply chain challenges, plus road haulage rates being very low in Years 4 and 5 (reducing the competitiveness of rail freight) had a significant impact on the volume of freight being transported and, reflecting this, at year end, Network Rail Scotland were -10% behind baseline and -16.3% adverse to target. In Year 5, almost 58 million net tonne miles were achieved from services that started in CP6 avoiding the requirement for almost 46 thousand long-distance lorry journeys.	R
Asset data quality: *Consistently maintain data quality at an A2 standard as a minimum across all asset data categories.*	The A2 data quality closing position for the year was 100% overall, with all disciplines achieving target.	G
Carbon emissions reduction and climate change: *Develop and deliver a metric for continuous carbon emissions reductions which is normalised to cover passenger and freight volumes and monitor this throughout CP6.*	Before the start of CP6, Network Rail Scotland developed metrics for continuous carbon emissions reductions and to reduce overall emissions and traction and non-traction energy use by the end of CP6. It was required to report those on a quarterly basis to us and Transport Scotland. In Year 3, we agreed with Transport Scotland that Network Rail Scotland would no longer be required to produce its quarterly CP6 HLOS update and instead would report the above metrics via a new dashboard. The dashboard has remained a live document with Network Rail Scotland providing updates via the Sustainability Steering Group (attended by Transport Scotland, Network Rail Scotland, ORR and ScotRail Trains Ltd). We provide commentary above on Network Rail Scotland's delivery of its ESI measure.	G

Requirement	Progress made in year 5 of CP6	RAG rating
Network capability and capacity: *Develop and implement a gauging strategy which seeks to deliver the Scottish Gauge Requirement. All Scottish routes are maintained to be capable of accommodating the gauge of all locomotives and passenger rolling stock.*	Throughout Year 5, Network Rail Scotland made progress against its commitments to deliver its HLOS requirements. There were improvements in knowledge of network capability, improved gauging capability and commitments to improving capacity and competency within its maintenance organisation. As part of its CP7 delivery plan, Network Rail Scotland has set out its commitments to deliver this requirement. It has now defined "Scottish Gauge" and has begun to specify and integrate these requirements from the start of CP7. An 'Integrated Approach' to its gauging strategy has been set out, and we will continue to hold Network Rail Scotland to account against these requirements.	A
Development of an efficient electrification specification: *all Scottish routes are maintained to be capable of accommodating the gauge of all locomotives and passenger rolling stock*	This was submitted to us and Transport Scotland at the start of CP6.	G
Depots and stabling strategy: *Network Rail must develop and implement a depot and stabling capability plan for the 15 years from 2019 to 2034.*	A plan was in place for Year 1. This plan was developed with train and freight operators. Network Rail has kept this strategy as a live document, and it will continue to evolve. This is to capture future changes, for example from the whole system signalling strategy, future electrification schemes (linked to decisions that Transport Scotland will take to support carbon emission reduction targets) and Transport Scotland's rolling stock strategy.	G

Requirement	Progress made in year 5 of CP6	RAG rating
Support for the rural economy and tourism: *Network Rail Scotland must have appropriate processes in place to support requirements of charter, tourist and other special trains. It should also ensure vegetation on rural and scenic routes should be controlled and maintained.*	At the start of CP6, Network Rail Scotland worked with charter train operators to review charter contracts and industry track access rights to investigate if there were options to protect a limited amount of capacity for charter train operation. Network Rail Scotland had agreed proposed changes with industry; however, it has since confirmed that there is currently no appetite in the wider industry to pursue those proposals further. In Year 5, Network Rail Scotland reported that it did not undertake planned spend on vegetation clearance of scenic sites. This was due to reprioritisation of funds to key safety risks namely hazardous tree removal and repeat OLE faulting locations. The region met this requirement as it reported that it had cleared larger mileages than were identified at the start of CP6 on scenic spot locations (particularly on the Wick and West Highland line). Network Rail Scotland's spend for scenic vegetation clearance from Year 1 of CP6 through to Year 5 was £1.9 million.	G
Creation of a Whole System Signalling Strategy: *Network Rail Scotland is required to create a long term, whole system signalling strategy for Scotland incorporating its existing signalling strategy, the elements of the Great Britain Digital Rail Strategy applicable to Scotland and rolling stock plans.*	In our last Annual Assessment, we reported that Network Rail Scotland had made good progress against this requirement, recognising the multiple drivers and outputs that the signalling system enables as part of the wider railway system. The final signed strategy was provided to us and Transport Scotland in December 2021. Transport Scotland wrote to the Network Rail Scotland in February 2022, recognising the progress that had been made but seeking refinements to the strategy. In response, Network Rail Scotland launched a new steering group, bringing parties together to refine the strategy. In August 2022, a new framework for the signalling strategy was developed. Network Rail Scotland committed to producing a new signalling strategy by March 2024. This is linked to CP7 HLOS requirements.	G

Annex D: Performance of Network Rail's Southern region

Summary

Train performance in Network Rail's Southern region improved during the year despite the impact of some extreme weather conditions. The region did not deliver its planned asset renewal volumes and asset reliability was below target. Enhancement works have delivered a new station and improvements at Gatwick Airport station. The region completed its drainage asset inventory in May 2024, missing the end of March 2024 target for completion. The region delivered its efficiency target for the year.

Overview

D.1 Network Rail's Southern region links major towns, cities, ports and freight terminals in the South of England. This annex focuses on Network Rail's delivery in the region's three routes, Sussex, Kent and Wessex, but it does not cover Network Rail High Speed.

D.2 Most passenger rail services are operated by South Western Railway, Govia Thameslink Railway Ltd (GTR) operating Southern, Thameslink and Gatwick Express, Arriva Rail London (ARL) operating London Overground services and SE Trains operating Southeastern services.

Headline performance during Year 5

D.3 Passenger and freight train performance in Southern improved during April 2023 to March 2024 (Year 5 of control period 6 (CP6)). However, the region did miss its scorecard targets for both passenger and freight performance and must continue to deliver improvement.

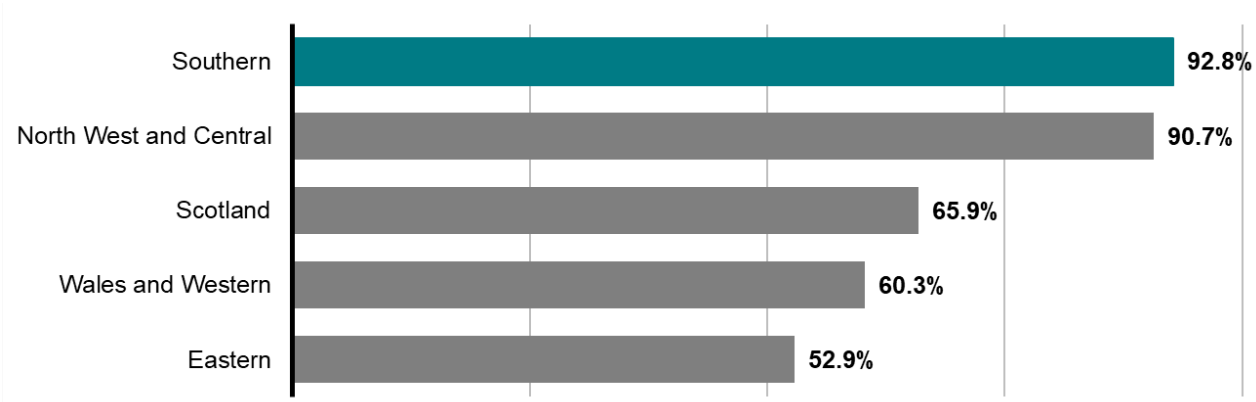
D.4 The region completed its drainage asset inventory in May 2024, missing the end of March 2024 target for completion of the inventory. It must also complete the corrective actions required at London Victoria station roof (western concourse).

D.5 Southern delivered the new Thanet Parkway station and the Gatwick Airport station upgrade.

D.6 Delivery of efficiencies in the year was better than the original CP6 target and the revised delivery plan target. However, the region's wider financial performance was below target by £83 million largely due to underdelivery in renewals volumes. The underdelivery was due to cost increases resulting in workbank prioritisations.

D.7 Network Rail measures its regions' overall performance using scorecards which contain a range of performance measures. Overall performance is expressed as a percentage achievement between 0% and 200% (with 100% being on target). Southern achieved 92.8%. As illustrated in Figure D.1 below, this was the best performance of all the regions.

Figure D.1 Overall scorecard performance by region, annual data, April 2023 to March 2024



Source: Network Rail's regional comparison scorecard

Train service performance in Southern has improved despite some challenges with infrastructure

Network Rail's passenger and freight train service delivery in Southern first stabilised and then improved during Year 5. The region's delivery of passenger performance is now at its best level for 18 months. However, Southern's delivery of freight performance remains below the national average.

Passenger and freight train service performance

D.8 Southern's delivery of train performance has improved in Year 5 of CP6. The moving annual average (MAA) for On Time passenger train performance in Southern region improved from 68.0% in Year 4 to 68.8% at the end of Year 5.

D.9 The delay that Network Rail caused to passenger services in Southern improved during the year but Southern was the second worst region for this measure in Year 5. Network Rail-attributed delay in Southern was 2.50 minutes per 100 train kilometres for Year 5 compared to 2.65 in the previous year but it was above (worse than) its scorecard target of 2.43.

D.10 Initially the declining freight train performance trend from Year 4 continued, resulting in the lowest results of CP6 in the early part of Year 5. Since July 2023 there was a notable improvement.

D.11 Freight performance (as measured by regional Freight Delivery Metric moving annual average (FDM-R MAA)) has improved to 90.1% during Year 5.

D.12 A significant driver of better performance in Southern region has been improved track performance. The main reason for this was an improvement in the 'soil moisture deficit' which was due to the very hot and dry summer in 2022. Summer 2023 was cooler and the track defects and speed restrictions that were implemented as a result in Year 4 were not necessary in Year 5. This removed a significant risk to train performance.

D.13 Following our interventions in Year 4 of CP6, the region and each route produced a performance recovery plan for both passengers and freight. Performance improved as a result of the actions undertaken in the recovery plan and we will continue to monitor its effectiveness.

Performance across the routes in Southern region is now consistent and all three routes (Sussex, Kent and Wessex) delivered improvements in Year 5

D.14 At a regional level trespass and severe weather have been two dominant themes affecting performance across Year 5. Trespass incidents have varied but cumulatively incurred significant delays to services. A range of mitigation measures are underway to tackle this including additional staff on platforms and interventions to prevent people climbing signal gantries.

D.15 There was a record number of named storms in Year 5 and February 2024 was the wettest February on record. In some cases, management responses were less effective than they might have been as rainfall levels were greater than forecast.

D.16 Severe weather also had a significant impact on earthworks: the recent embankment failures at Hassocks in Sussex, Newington in Kent, and Bough Beech near Edenbridge being very visible examples.

D.17 Kent route had the lowest freight performance in the Southern region. Freight services that operated on the Grain branch and those in the Tonbridge area were particularly impacted.

D.18 On the Grain branch, temporary speed restrictions (implemented for a variety of reasons including track quality and level crossing sighting issues) affected the punctuality of freight services, which caused delay to other services on the wider route. The Tonbridge area had operational challenges with some freight moves impacting performance. Both locations have been subject to considerable work to improve punctuality, and performance has increased this year with potential for further improvement next year when future work is implemented.

D.19 Sussex route successfully commissioned the London Victoria resignalling phase 3 project which has made substantial improvements in train service performance, with delays notably reduced. This was due to be followed by the commissioning of phase 4 of the project in February 2024, but Network Rail deferred this to later in 2024 following its own internal review of deliverability.

D.20 Conversely, elsewhere across the network, a range of signalling and train detection failures within older equipment caused significant disruption to services at various times of the year.

D.21 Arriva Rail London's services (for which the lead route is Sussex) operating on the North London Line (part of the Anglia route, Eastern region) have experienced

poor performance in Year 5. There were multiple causes of delay, including passenger growth (leading to higher numbers than pre-pandemic), interaction between passenger and freight traffic, highly disruptive trespass incidents, train detection issues and train failures.

D.22 Network Rail is delivering a programme to replace insulated block joints (part of the signalling system). The North London Line remains the biggest challenge to Arriva Rail London's performance, and work to improve this must remain a focus.

D.23 There have been numerous blockades in the Wessex route on several lines in Year 5 including the West of England, the Heart of Wessex and the North Downs lines to improve infrastructure. The Feltham Area Signalling Centre closed in August 2023 with the signal box at Wokingham following in February 2024. Signalling control of the routes around Feltham, Hounslow, Shepperton, Twickenham, Windsor and Eton Riverside and Wokingham was then transferred to Basingstoke Rail Operating Centre (ROC).

D.24 Aged signalling assets on the Portsmouth Direct Line (Woking to Havant) impacted performance this year and Network Rail has undertaken various short-term interventions to maintain these assets and ensure appropriate levels of operational performance until the resignalling of this line is commissioned in the second year of CP7.

Capacity and access to the network

D.25 Southern continued to have issues with services running that did not have corresponding track access rights in place in the track access contract (a legal requirement) and applications being impacted by late notice change requests. We remain concerned that the region has not managed to ensure operators provide sufficient transparency on track access rights. There have been too many examples of where operators have bid into the timetable as part of short-term planning, without having rights in place.

D.26 Southern acknowledged the problem and the region continues to have positive, transparent dialogue with ORR to try and resolve issues. An example of this is that as part of the periodic review 2023 the region needed to correct and update contracts, which allocate capacity, assign charges and compensation payments in line with legal requirements, then submit them to ORR. The process highlighted gaps in the region's contract management. Southern conducted a process review and we will monitor its outcomes.

Overall asset reliability was below its target and asset renewal was below plan

The region's asset sustainability continued to decline

D.27 Network Rail must maintain and renew its assets in an efficient, sustainable way to support railway operations. This is measured using the Composite Sustainability Index (CSI), which compares asset sustainability to the end of CP4.

D.28 Southern finished the year with a CSI of –3.4%. This represents a decline in overall asset sustainability of 3.4% since the end of CP4.

Southern missed its asset reliability targets but showed improvement in Year 5

D.29 Southern region finished the year with a Composite Reliability Index (CRI) score of 12.7% against its scorecard target of 14.2%. This means the region is 1.5 percentage points below its annual scorecard target, but 12.7% better than it was in the final year of CP5.

D.30 At the asset level, the CRI score for points, signalling and structures was below the region's target for the majority of Year 5.

Southern underdelivered its assets renewals plans

D.31 We scrutinise Network Rail's delivery of asset renewals work and whether this is in line with planned volumes for each year of the control period. As part of our assessment, we look at Network Rail's delivery of effective volumes. This refers to the volume of work undertaken in seven key asset areas, with weightings attributed based on life added to the asset by each type of work.

D.32 Southern's delivery of effective renewals volume was below its plan for Year 5. It only achieved 82% of its planned target. It did not achieve its plan in four of the six asset types which are relevant to the region. Underdelivery was in plain line track, switches and crossings, signalling and significantly in structures (bridges) which only achieved 38% of its planned renewals.

D.33 Underdelivery was primarily due to reduced available budget and efforts to maintain cash compliance. In the case of signalling, underdelivery was driven by the deferral of some schemes into Year 1 of CP7. For structures (bridges) a number of bridge refurbishments and replacements were deferred and there was slippage on delivery of elements for a bridge reconstruction at the end of the year.

London Victoria station roof (western concourse) structural assessment found to be non-compliant

D.34 In 2014 we raised concerns about Network Rail's approach to managing the load capacity of its Operational Property assets, recommending improvements through structural assessments. In response, Network Rail addressed many outstanding assessments over several years. However, subsequent reviews revealed that structural assessment requirements were not consistently integrated into Network Rail's business as usual activities, raising concerns.

D.35 Understanding the current load capacity of structures is crucial for preventing failures and serves as a key control barrier against functional breakdowns. A lack of accurate structural assessments could also hinder Network Rail's ability to effectively plan maintenance, renewal and enhancement activities.

D.36 Our review at London Victoria station's western concourse roof revealed that the mandatory 18-year structural assessment had lapsed and the region lacked clear plans for conducting the next assessment. We also found that there were incomplete records on actions taken in response to previous structural assessments.

D.37 As a result, we required the region to undertake corrective actions. This included an investigation into water ingress, commissioning a new structural reassessment and undertaking the first stage of structural reassessment towards the end of Year 5.

D.38 We will continue to hold the region to account for completion of the next stage of structural reassessment for the western concourse roof at London Victoria station and monitor its corresponding actions.

Southern missed the target to have a complete drainage asset inventory

D.39 The Rail Accident Investigation Branch report into the derailment due to a landslip and subsequent collision in Watford in 2016 recommended that all Network Rail regions complete an accurate drainage asset inventory. All regions committed to having a full drainage asset inventory by 31 March 2024. Three regions met the target. However, two regions requested extensions: Southern to May 2024 and Eastern to October 2024.

D.40 We raised concerns with Network Rail about the delay in completing the drainage asset inventory. Southern completed its drainage asset inventory in May 2024.

D.41 Following each region's completion, Network Rail's Technical Authority will conduct an assurance check to confirm the inventory's completeness and quality. We have expressed concerns about the process and timeline for these assurance checks, specifically regarding the scope of the checks and the expected completion dates. The Technical Authority is currently addressing these concerns and there has been progress in resolving the issues.

Southern failed to meet its Environmental Sustainability Index target

D.42 Southern did not achieve its Environmental Sustainability Index (ESI) scorecard target for Year 5 (delivering 71.0%). The region exceeded its target for percentage of non-hazardous waste diverted reused or recycled and reduction in non-traction carbon emissions related to decarbonisation of the National Grid increasing more rapidly than Network Rail assumed at the start of the control period.

D.43 The region did not meet the target for reduction in non-traction energy use and non-hazardous waste diverted from landfill. Southern had the third lowest total production of waste, this can mean that small volumes can significantly impact percentage figures reported under the ESI measure. The region has been investigating potential high gas billing issues at Basingstoke ROC which may be a significant contributory factor to poor energy reduction performance.

D.44 We are keen to see the region address these issues and improve performance in all areas in the first year of CP7 to support performance reporting for scope 1 and 2 carbon emissions and circular economy (waste reused).

Southern delivered on enhancements successfully

D.45 In Year 5 Southern successfully delivered several schemes that improved the passenger experience. Thanet Parkway Station, a new station in Kent route, opened in July 2023. This new station improved the connectivity of the Isle of Thanet with the rest of the region.

D.46 In November 2023, the Gatwick Airport station upgrade project opened. Passengers are benefitting from improved journey times, increased concourse areas reducing congestion within the station and improved accessibility with the installation of new lifts, escalators and stairways.

The region delivered on efficiencies but has financially underperformed in Year 5

Southern successfully delivered its efficiency plans, outperforming against its original CP6 target and its revised delivery plan. However, the region underperformed financially due to cost increase relating to renewals.

D.47 Southern delivered £261 million of efficiency saving in the year, outperforming its original CP6 target for the year of £195 million by 34% and its revised in-year delivery plan of £250 million by 4%.

D.48 In Year 5, the region saw risks associated with telecoms initiatives crystallising resulting in a downgrade of the assets efficiency performance, by circa £35 million. However, these were offset by outperformances in efficiency initiatives such as contracting strategies, reduced activity due to technology improvements and workbank planning.

D.49 Despite challenges over the control period, the region delivered £929 million of efficiencies over CP6, 24% over its original CP6 target and 1% over its revised CP6 delivery plan. Key efficiency savings across the control period were achieved from contracting strategies, LEAN (implementing a culture of continual improvement) initiatives and improved workbank planning.

D.50 With Year 5 being the last year of CP6, Network Rail's leading indicators look forward to the region's readiness to deliver for Year 1 of CP7. Southern's leading indicators suggest that 50% of its efficiency improvements have completed or well-developed plans as at March 2024, the lowest of all the regions, while the remaining 50% of improvements have minimal plans in place. However, this is largely attributable to the change in control period where efficiency baselines are reset and new long term efficiency plans are being established.

D.51 The region has 71% of its renewal activities authorised for the year, above the national average (67%) and 89% of its disruptive access secured for engineering works, fourteen percentage points above the national average (75%).

D.52 Southern reported a financial underperformance of £83 million. While the region has done well, outperforming in its schedule 4 and 8 targets unlike other regions, the underdelivery in renewals volumes brought about a large portion of the underperformance within the year. The underdelivery was due to cost increase resulting in workbank reprioritisations.

D.53 Further analysis on the region's financial performance will be carried out in our Annual Efficiency and Finance Assessment, which examines the financial performance in relation to the region's CP6 delivery plan. This is scheduled for publication this autumn.

Southern has delivered on some key safety metrics

D.54 Southern region performed well on several key safety measures. Fatality Weighted Injuries (FWI) measure (a measure of accident severity) ended Year 5 at a record low figure of 0.053. This is a 40% reduction from the end of Year 4. This achievement is attributed to a focused campaign on preventing slips, trips and falls.

D.55 The region exceeded its CP6 level crossing risk reduction target, achieving a 21.5% reduction in FWI compared to its target of 18%.

D.56 Signals Passed At Danger (SPAD) incidents improved by 27% from Year 4, with 40 SPAD incidents in Year 5 as opposed to 55 in Year 4. The region had lower than national average numbers of SPAD incidents per million miles travelled.

D.57 The region had some significant incidents during the year. In August, a person was electrocuted after coming into contact with the 3rd rail at Deal station and we continue to investigate. In March, the first two wheels of a passenger train travelling at 85mph derailed after striking debris left on the line following engineering work at Walton-on-Thames, although the train stayed upright.

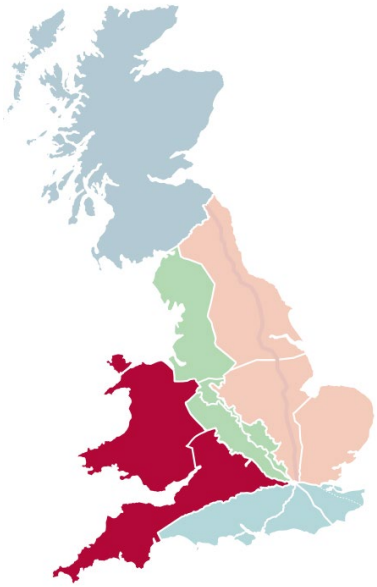
Annex E: Performance of Network Rail's Wales & Western region

Summary

Wales & Western region's delivery of train service performance to passengers continued its decline during the year to unacceptable levels and following an investigation we found Network Rail in breach of its network licence. The reliability of the region's assets further declined. The region initiated an additional improvement plan focused on the Thames Valley to address the worst performing area of its network. It must further develop and deliver this plan.

Overview

E.1 Network Rail's Wales & Western region extends from London Paddington to Penzance via Reading, Swindon, Bristol, Exeter and Plymouth in the Western route and transports commuters to key locations such as Cardiff and Swansea in the Wales & Borders route.



E.2 Most passenger rail services in the Wales & Western region are operated by Great Western Railway, MTR Elizabeth Line, Transport for Wales and CrossCountry. Rail freight services are also critical, moving various commodities within the region and beyond.

Headline performance during Year 5

E.3 During Year 5 of control period 6 (April 2023 to March 2024 (CP6)) Network Rail's Wales & Western region's delivery of passenger train service performance continued to deteriorate. While freight performance improved, the region had the lowest freight performance compared to other regions. We initiated an investigation due to the unacceptable levels of train performance in the region. We found Network Rail in breach of its licence and issued an order, requiring Network Rail to produce, by 31 August 2024, a robust and evidenced plan identifying the

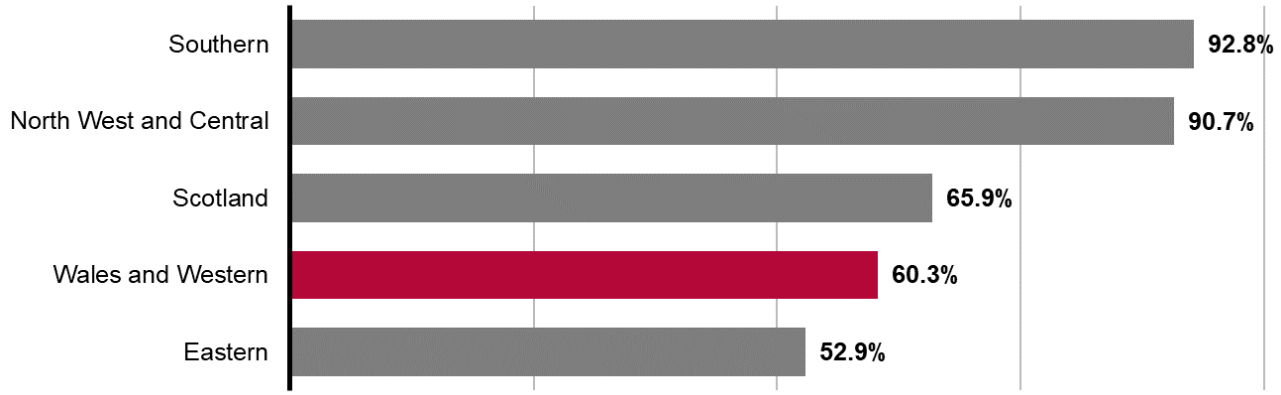
further activities it will undertake to improve performance in the Wales & Western region.

E.4 The region's asset reliability declined considerably during the year, ending the control period with the worst asset reliability of any region and 14.3% worse than at the end of the previous control period. The region underdelivered its asset renewals plans.

E.5 The region exceeded both its Year 5 and CP6 efficiency targets, delivering £116 million of efficiencies in the year and achieving £524 million of efficiency saving over CP6.

E.6 Network Rail measures its regions' overall performance using scorecards which contain a range of performance measures. Overall performance is expressed as a percentage, with 100% being on target. Wales & Western achieved 60.3% on its scorecard for the year, the second lowest performance of any region. It met its scorecard targets for train accident risk reduction, personal accountability for safety, freight cancellations, complaints handling and employee engagement, but failed to meet all its other targets.

Figure E.1 Overall scorecard performance by region, annual data, April 2023 to March 2024



Source: Network Rail's regional comparison scorecard

Train service performance reached unacceptable levels and we launched an investigation

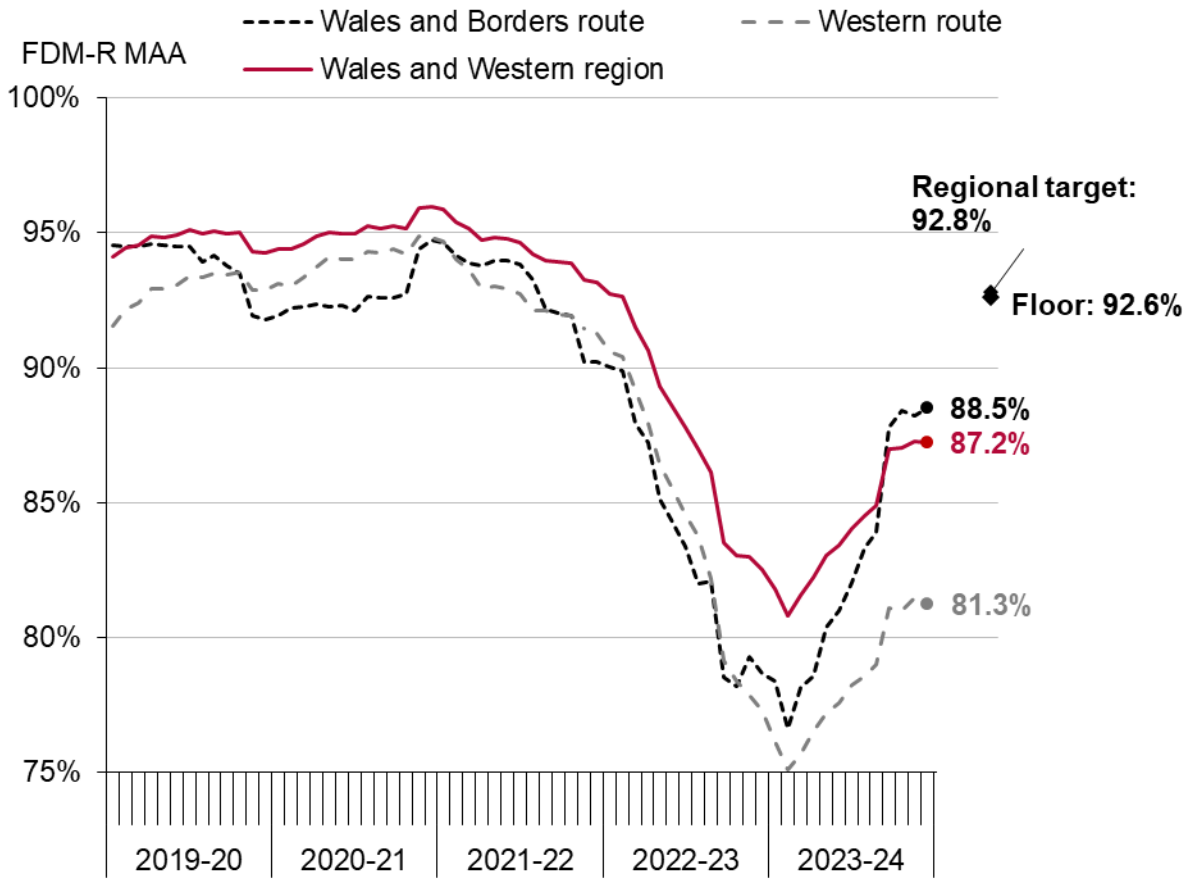
Passenger train service performance continued to decline in Wales & Western, reaching unacceptable levels. We initiated an investigation into whether Network Rail had breached its network licence and found it to be in contravention of condition 1 of the licence – facilitation of railway service performance.

Passenger and freight train service performance

E.7 Between April 2023 and March 2024 passenger train performance on Wales & Western continued to decline. On Time performance fell from 62.3% at the end of Year 4 to 58.6% at the end of Year 5.

E.8 Wales & Western was Network Rail's worst performing region for freight. Freight performance (as measured by the regional Freight Delivery Metric (FDM-R)) improved throughout the year to end at 87.2% but this was still below the region's scorecard target of 92.8%. The rate of improvement on the Wales & Borders route was greater than on the Western route. The ending of industrial action was a significant factor in the improvement of freight performance.

Figure E.2 Freight performance (FDM-R) for Wales and Western region and routes, periodic data, April 2019 to March 2024

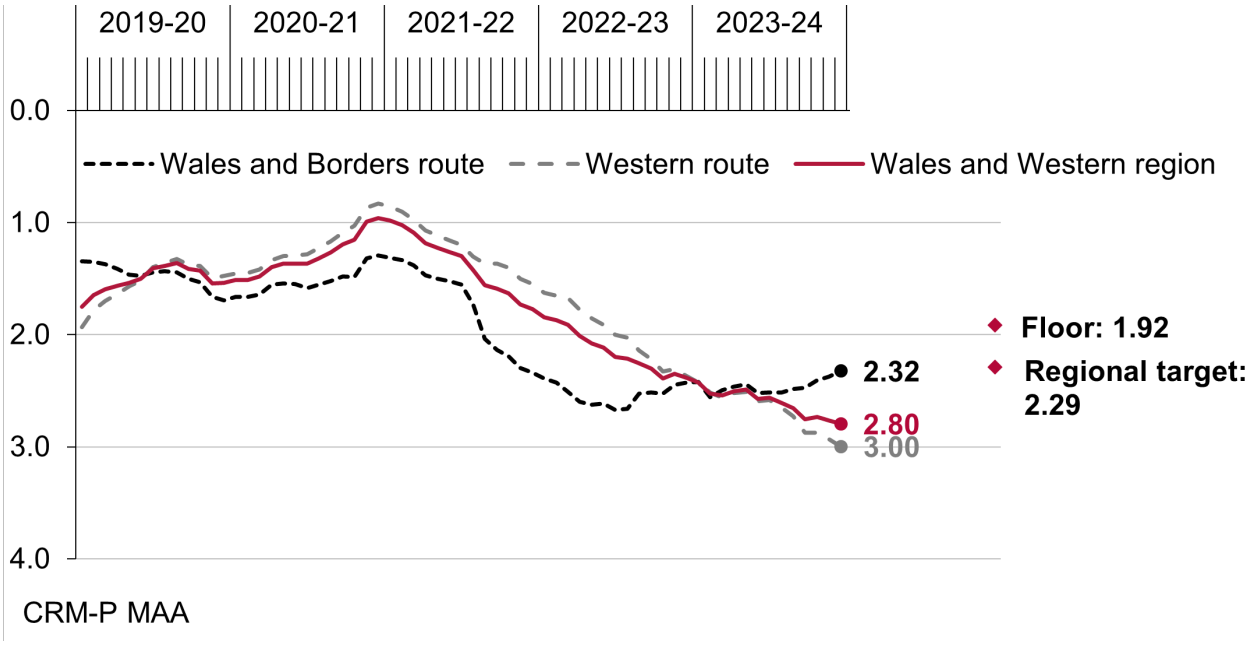


Source: ORR analysis of Network Rail data

E.9 The delay the region caused to passenger train operators continued the worsening trajectory begun in 2021. Network Rail attributed delay in the region was 2.80 minutes per 100 train kilometres (CRM-P) in Year 5, compared to 2.39 minutes in Year 4 and 1.77 minutes in Year 3. Wales & Western had the worst CRM-P of all regions in CP6.

E.10 Poor passenger train performance caused by Network Rail in the region was largely driven by poor performance on Western route, with Wales & Borders route's CRM-P improving throughout the second half of the year.

Figure E.3 Passenger train performance (Network Rail caused delay minutes normalised, CRM-P) for Wales & Western region and routes, periodic data, April 2019 to March 2024



Source: ORR analysis of Network Rail data

Licence investigation into train performance

E.11 We had previously placed the Wales & Western region under enhanced monitoring for its deteriorating performance while it developed and implemented a performance improvement plan which it provided to us in August 2022. Despite the region's delivery of planned improvement activities, train performance levels experienced by customers continued to worsen and fall below expectations, particularly on the Western route. As a result on 29 November 2023 we initiated an investigation into Network Rail's compliance with the network licence.

E.12 Following that investigation, on 29 May 2024 ORR found Network Rail to be in continuing breach of condition 1 of the network licence by failing to secure, to the greatest extent reasonably practicable, the operation and maintenance of the network in accordance with best practice as it:

(a) failed to plan sufficiently for cumulative changes on the network, including as a result of the Great Western Electrification Project and Crossrail, and its plans to address this must be developed further;

(b) does not fully understand the extent to which different operational factors are driving increase delay, which hampers its ability to target improvements effectively;

(c) has weaknesses in its processes for learning lessons from incidents; and

(d) has weaknesses in its leadership structures and governance as it is not currently set up to drive optimised train performance outcomes.

E.13 ORR determined that Network Rail is failing to demonstrate that it is taking and will take all necessary steps across the Wales & Western region to improve performance to the greatest extent reasonably practicable taking account of all relevant circumstances because its plan to address poor performance in the Thames Valley (known as 'Project Brunel') is not sufficiently developed to address longer-term asset sustainability, asset reliability and operational practices, and it is limited to the Thames Valley area of the Western route.

E.14 We published our investigation report on 29 May 2024. Our investigation scrutinised significant amounts of evidence provided to us by Network Rail and sought feedback from its stakeholders. As a result of our findings, we issued a range of recommendations to Network Rail. These include recommendations in areas such as improving understanding of why the impacts of incidents are increasing, improving governance of train performance delivery and establishing clear timebound milestones for its plan to sustainably improve asset reliability and sustainability on the Western route out of London Paddington.

E.15 Recognising the role that industry plays in performance we also made recommendations to industry, including reviewing how it can ensure that processes for planning major service upgrades fully consider the cumulative impact of successive major changes, and considering how to drive forwards improvements to train performance in Wales & Western which rely on cross-industry collaboration (such as further roll out of technology to improve incident response).

E.16 As a result of our investigation, we have issued an order, requiring Network Rail to produce, by 31 August 2024, a robust and evidenced plan identifying the further activities it will undertake to improve performance in the Wales & Western region.

Train performance was impacted by Wales & Western's infrastructure and operational issues

E.17 There were multiple direct and indirect reasons for the further decline in the region's performance in Year 5. The biggest immediate causes were non-track assets, severe weather, the impact of autumn and structures. Delays increased for a broad range of non-track asset types, but the largest increase in delay came from axle counter failures on the Western route.

E.18 The region was also impacted by a number of large incidents including the forced closure of the Nuneham Viaduct on the Didcot to Oxford line between April and June 2023 for urgent repairs. Very limited notice was given of this closure and Network Rail could have better prepared for it. The incident caused widespread disruption.

E.19 In May 2023, a fire in signalling equipment near Marshfield in Wales led to severe delays. The fire was caused by the failure of a cable tie. These cable ties had previously been identified as unsuitable, but Network Rail had not replaced them. While the region should have done more to prevent both incidents from taking place, its response to them was well-managed.

E.20 The region experienced a further incident in July 2023 at Old Oak Common when severe delays were caused by electrical interference from an outside party. Network Rail took several days to find a solution.

Improving processes for allocating access rights

E.21 The region has continued to improve its processes for allocating capacity track access rights. There were some applications which were received less than 12 weeks before the timetable started but the region continues to take positive steps to strengthen its processes.

Asset reliability has worsened

Asset sustainability declined in Year 5 and throughout the control period. Asset reliability has worsened considerably during the year with track reliability a particular concern. Renewals plans were underdelivered for all asset types except signalling.

E.22 Network Rail must maintain and renew its assets in an efficient, sustainable way to support railway operations. We measure this using the Composite Sustainability

Index (CSI), which compares asset sustainability to the end of CP4. Wales & Western finished the year with a CSI of –0.3%. This represents a decline in overall asset sustainability of 0.3% since the end of CP4.

E.23 Because CSI is slow moving, we complement our monitoring of it by looking at other asset management metrics, including measures of asset reliability and maintenance and renewals delivery.

Track asset reliability was a continued concern

E.24 Wales & Western's asset reliability, as measured using the Composite Reliability Index (CRI), worsened considerably during the year. The region finished the year with a CRI score of −14.3% against a scorecard target of 0.2%. This means it is 14.5 percentage points below its annual scorecard target and 14.3% worse than it was in the final year of CP5.

E.25 CRI is a composite measure of seven assets groups, and the reliability of four of these was both below the region's target and worse than at the end of CP5 (track, points, buildings and electrical power). Additionally, the reliability of signalling was worse than the region's target. The reliability of track has continued to decline throughout the year and was the region's least reliable asset type (contributing the greatest amount to CRI). It ended Year 5 with a CRI score of -10.4%.

Closure of Nuneham Viaduct

E.26 Network Rail closed Nuneham Viaduct at late notice for three months on 3 April 2023 for urgent renewal. The viaduct, located between Didcot Parkway and Oxford, is a vital structure on a major rail artery for freight and passenger services. Its closure caused significant disruption. Network Rail had to close the viaduct due to concerns about the safety of the structure as a result of vertical movements to its southern abutments.

E.27 We undertook a review of this incident to understand and evaluate Network Rail's actions and decision-making processes leading to the failure and subsequent closure of the viaduct. We identified that the region missed opportunities to intervene earlier and missed opportunities to link intelligence from different asset disciplines which would have helped to diagnose the issue. These opportunities would have allowed Network Rail to plan its engineering works and so reduce disruption to users. We consider the management of the impact of this asset failure in our Wales & Western investigation report published on 29 May. Our review of this incident informed a number of the recommendations we made to Network Rail in that report.

Structures examinations

E.28 Wales & Western remains behind on its structures examinations. The region is not achieving the forecasted plan for improving both visual and detailed examinations (site) and visual examinations (reporting). For visual examinations (reporting) the region has 130 examinations above the forecasted volumes in its plan, for visual examinations (site) the region has 39 examinations above the plan and for detailed examinations (site) the region has 27 examinations above the plan. These volumes are lower when compared with other regions and considered recoverable.

Wales & Western fell short of its environmental target

E.29 Wales & Western was the second-best performing region against the Environmental Sustainability Index (ESI) last year but fell short of its overall annual target for ESI, achieving 92.3% against the 100% target. The region only exceeded the target for reducing non-traction carbon emissions.

E.30 The region missed its targets for non-hazardous waste reused and recycled, mainly due to 7,500 tonnes being incorrectly recorded within one of its capital delivery projects. It also failed to meet its targets for hazardous waste diverted from landfill and reduction of non-traction energy use. A significant factor behind failure to meet the reduction in non-traction energy use target was the impact of a wet winter, which led to significantly increased pumping from the Sudbrook Pumping Station to clear the Severn Tunnel.

E.31 We are keen to see performance improve in all these areas as the region moves into the first year of CP7, to support performance reporting for scope 1 and 2 carbon emissions and circular economy (waste reused).

Progress made on enhancement projects

E.32 The region has continued to progress with the delivery of enhancement projects, with several key schemes entering the detailed design and delivery phases over the last year.

E.33 The South West Rail Resilience Programme has continued to deliver, with the first three phases nearing completion and providing better protection to the mainline and station at Dawlish. This also includes the provision of the new rockfall shelter built over the railway at Parsons Tunnel. The remaining stages also continue to progress, with the installation of soil nails and netting on the cliff faces.

E.34 Major works continued at Oxford, where works to build the new platform and station entrance made progress. However, works to deliver a new wider railway

bridge over Botley Road have been frustrated by the discovery of an extensive Victorian brick arch running beneath the worksite.

E.35 In Wales & Borders, the final stage of the major renewal of the historic Barmouth Viaduct was successfully completed. This marked the culmination of four years of work to restore the bridge, which was previously found to be in very poor condition.

E.36 There are numerous additional schemes that are also being developed and delivered. These include the rebuilding of the Portishead Line as part of the MetroWest programme, the refurbishment of Bristol Temple Meads station and ongoing works to mitigate the impact of the construction of the High Speed 2 station at Old Oak Common.

The region delivered strongly on efficiency

Wales & Western delivered £524 million of efficiencies over the control period, 21% more than its original CP6 target. However, financial performance declined by £231 million against budget.

E.37 Wales & Western delivered £116 million of efficiency improvements in Year 5 of CP6. This was 17% over its original target for the year (£99 million), however the region was 12% behind its in-year delivery plan target of £132 million. This was partly due to lower than planned staff modernisation efficiencies being realised during the year.

E.38 The region delivered a £524 million efficiency saving over CP6 exceeding its original CP6 target of £432 million by 21% but was slightly behind its revised CP6 delivery plan of £539 million (down 3%).

E.39 Wales & Western's key efficiency savings across CP6 were achieved from contracting strategies, optimisation of access, improvements from new technologies and workforce reform savings.

E.40 With Year 5 being the last year of CP6, Network Rail's leading indicators look forward to the region's readiness to deliver in Year 1 of CP7. Wales & Western's leading indicators show that 76% of its efficiency improvements have been completed or have well-developed plans with the remaining 24% of improvements having minimal plans in place, largely due to the change in control period where

efficiency baselines are reset and new long-term efficiency plans are being established.

E.41 The region has 77% of its renewal activities authorised for Year 1 of CP7, ten percentage points above the national average (67%) and 67% of its disruptive access secured for engineering works, eight percentage points below the national average (75%) and the lowest of all the regions.

E.42 Wales & Western's financial underperformance during the year was £231 million. Similar to other regions, this was due to compensation payments to train operating companies due to poor performance and cost increases to renewals delivery, particularly in track and signalling.

E.43 Further analysis of the region's financial performance will be carried out in our Annual Efficiency and Finance Assessment, which examines the financial performance in relation to the region's CP6 delivery plan. This is scheduled for publication in autumn 2024.

Most health and safety targets for the year were not met

The region did not deliver against most of its annual health and safety targets. Level crossing near misses improved due to safety improvements. Unsafe train disembarkation occurred from stranded trains and we are pressing the region to implement the lessons that it has learnt.

E.44 Wales & Western ended Year 5 with a lost time injury frequency rate (LTIFR) above (worse than) target, at 0.352, above where it had ended the previous year, 0.304. The regional LTIFR rate has been above the national average for the last two years. A similar picture can be seen using the fatality weighted index (FWI) measure, which showed the region ending this year with an FWI of 0.084, compared to 0.063 for the previous year. The FWI has been below the national average this year. The main contributors to workforce injuries were slips, trips and falls of under two metres, followed by struck by an object (not a train).

E.45 The number of events with the potential to cause major accidents has been broadly steady over the last two years. In Western, the largest contributor to these in Year 5 was serious (ranked 20+) signalling wrong side failures, whereas in Wales the main contributor was large animals on the line. Wales & Borders also tends to see more level crossing near misses, due to the significant number of level crossings in the route. Despite this, the year showed a continued decline

(improvement) in FWI at level crossings across the region. This can be attributed to improvements made to crossings as well as closures.

E.46 Numbers of signals passed at danger associated with driver error or mistake (SPADS – category A) increased over the last year with 52, compared to 42 in Year 4. This is thought to be largely due to the number of newly qualified drivers on the network (where responsibility for training lies with train and freight operating companies), but also due to an increase in red signals approached (a function of Network Rail's signalling decisions as well as increased traffic). There have been two SPADs ranked 20+ (highest potential for serious consequences) this year.

E.47 In late November 2023, four significant track failures occurred, including two broken rails, all on fast, busy lines – three between London Paddington and Reading and one east of Swindon. We found that in relation to the broken rails there was broad compliance with inspection and maintenance standards. However, there was evidence of deteriorating asset condition while traffic has increased and renewals are reducing.

E.48 We investigated the safety aspects of the failure of Nuneham Viaduct. Our investigation identified that Network Rail followed the correct processes in closing the line and did not identify any areas for follow up from a safety perspective.

E.49 We also investigated a dewirement at Ladbroke Grove in December 2023. This caused seven trains with over 3,000 passengers to become stranded for over three hours. Some passengers disembarked from these trains and made their own way off the infrastructure before railway staff were present to escort them safely. Fortunately, this section of the railway was closed to traffic and the electricity was switched off at the time, meaning the risk of a serious injury or a fatality was low. The region sought to learn lessons from this incident and has developed sensible actions and recommendations to address the delay in evacuating stranded trains. We continue to monitor the region's implementation of these actions.

Annex F: Performance of Network Rail's System Operator

Summary

Network Rail's System Operator has continued to provide effective management of timetable risk and delivered two timetable changes successfully in Year 5 of CP6. It has committed to achieving better compliance in sale of access and timetable production rules and is making good progress towards those aims. However, we had concerns about the System Operator's delivery of a number of its major projects.

Delivery of licence obligations

The System Operator has developed good plans to improve its management of some critical industry processes and must deliver on them.

Access applications

F.1 Over the last year we have intervened in several track access application cases where the process appeared to lack robustness and coordination. The May 2023 timetable change was also marked by very late track access applications from two operators and the North West & Central region. An independent reporter review completed in June 2023 made recommendations to improve the process and good progress has been made on these. While not all the actions were completed in the agreed timescales, the System Operator has committed to greater transparency with more effective communication and coordination, and we are content with the plan to implement remaining actions.

F.2 We have worked closely with the Industry Timetable Assurance Programme Management Office (PMO) during the year to collate and present accurate information concerning the status of operators' access rights ahead of timetable changes. The PMO is now reporting more accurately on risks associated with rights not being in place in time, which is a valuable support for ORR in driving improvements from operators and Network Rail regions in this area.

Timetable preparation

F.3 The System Operator successfully delivered two major timetable changes in May and December 2023. This has been underpinned by continuing effective risk management by the industry PMO. We have also seen evidence of stronger holding to account by the System Operator of operators' and regions' adherence to timetable production rules. Following ORR's decision not to take forward proposed changes to the timetable process (the Better Timetables for Passengers and Freight programme, described below), we wrote to Network Rail in June 2023 requiring the System Operator to produce a recovery plan to return to Network Code timescales for timetable production by the end of 2024. We formalised this position in our PR23 final determination. We welcome that Network Rail has made a clear commitment and good progress towards achieving these requirements.

F.4 Towards the end of Year 5, the System Operator focused significant planning and assurance resource on the timetable change planned for December 2024. This activity highlighted performance and delivery risks that had not been closed out during the advanced planning process (a responsibility of the regions) and led to Network Rail recommending a deferral of the East Coast Main Line (ECML) aspects of the timetable change. During this process, we were pleased to see that the System Operator and the PMO's advice to decision-makers emphasised the importance of meeting timescales to allow information to be provided to customers in accordance with the network licence.

F.5 While it is positive that the PMO was consistently transparent to stakeholders over the risks to performance and the System Operator led good, collaborative work across industry to resolve conflicts, this deferral is the fourth planned date for the ECML recast which has been missed. This means the industry is not able to achieve the planned benefits. It is now critical that wider lessons are learned by the industry, for both the eventual implementation of change on the ECML and for planning of future major changes. How Network Rail manages this will be a key area of focus for ORR in the coming months.

Long term planning

F.6 The System Operator has devolved a number of elements of planning to the regions since 2018. We do not have clear visibility of how effective this has been. To achieve greater transparency, we have included a requirement in our final determination for the System Operator to provide an annual narrative report on long-term planning in each year of CP7.

Reporting of performance

F.7 The System Operator continued to make improvements to its reporting and data provision during CP6 which supported transparency and our holding to account and it worked collaboratively with us on the development of new success measures which we will use to assess the System Operator's delivery during CP7.

Major change projects

F.8 The System Operator had planned to deliver a number of significant projects in Year 5. Delivery has not progressed as planned in some important areas including the Access for All enhancements programme and the Industry Timetable Technical Strategy (ITTS). Planned benefits have not been fully delivered despite considerable input of resources from operators, stakeholders and internally within Network Rail.

F.9 The System Operator was also unable to secure ORR's agreement to proceed with changes to timetable production rules. This meant that the Better Timetables for Passengers and Freight (BTPF) programme did not reach a successful conclusion. The timetable production process, a System Operator responsibility, has not been running in accordance with Network Code timescales for some years and the BTPF programme (which began in Year 3 of CP6) was intended to address this by amending the Network Code. The process consumed significant effort from System Operator and stakeholders to reach a conclusion. However, we were not satisfied that the proposed solution met legal tests or that the proposed move to finalise timetables eight weeks prior to operation commanded sufficient support from stakeholders and customers. The outcome of the BTPF programme could therefore not be approved by ORR, so proposals were withdrawn in October 2023. Throughout the BTPF process we found that there were weaknesses in stakeholder engagement, as described in ORR's annual assessment of stakeholder engagement in Year 4 of CP6 published in September 2023.

F.10 A key funding commitment for CP6 was delivery of the Industry Timetable Technical Strategy (ITTS) project, intended to bring improvements to data handling and timetable production. Following a review which assessed that further investment would not represent value for money, the project was closed in August 2023 without delivering a significant part of the planned scope. We recognise and support the decision to close, based on sound criteria, but have asked for the approach to future investment decisions to be amended and improved for governance of projects.

F.11 There were also underspends in the Performance Innovation Fund (out of a total authorised sum of £45.5 million (this is £40 million in 2018 prices, the original PIF value), £39 million was invested) and other capital projects, representing a lower than planned level of delivery. There appears to be no single reason for this, but it is noted that there was management churn and a shortage of skilled staff in some areas.

F.12 A further area where delivery has not occurred as planned is the Access For All enhancements programme, where the System Operator has stewardship while delivery is by regions. The ORR has an observer role in this area and has secured the creation of a new report to show scheme progress which will give greater transparency for stakeholders.

Freight performance steadily improved, and the System Operator needs to provide consistent leadership to improve regional freight performance

National freight performance steadily improved over Year 5 from a period of particularly poor performance at the start of the year. However national performance remained below the regulatory floor.

F.13 Freight train performance steadily improved over the course of the year following a period of widespread cancellations and late running services which continued to impact performance in Year 5. The moving annual average (MAA) percentage of commercial freight services arriving at their planned destination within 15 minutes of their booked arrival time steadily improved from its lowest level of 85.1% in May 2023 to 90.3% at the end of Year 5. This is still below the regulatory floor of 92.5%. This was largely due to worsening asset reliability leading to delays throughout the year.

F.14 Freight cancellations ended the year at 1.78%, below the Network Rail scorecard target of 1.68%, which was an improvement on the position at the beginning of the year. The main causes of freight cancellations throughout the year were asset failures across the network, other significant incidents reported on the network (e.g. closure of Nuneham Viaduct) as well as severe weather.

F.15 In response to a continued decline in overall train performance including freight train performance, we requested performance recovery plans from each of the regions in England and Wales. These plans have delivered some outputs

throughout the year, and we have seen some examples of good leadership, for example the Mendip Rail timetable recast in the Wales & Western region. However, we have yet to see consistent evidence of leadership by the System Operator over the regions' performance recovery plans and regional freight performance remains mixed. In December 2023, we wrote to Network Rail to explain that we required accountabilities and responsibilities for freight within Network Rail to be much clearer as we start CP7 – specifically what actions the regions and the System Operator will be accountable for in maintaining a focus on improving freight train performance. That clarity is essential for assurance that the required performance improvements are being delivered. We will continue to monitor the position closely.

F.16 We have worked closely with the freight team in the System Operator as it developed its freight growth plans for CP7. Through this process we have seen evidence of the System Operator engaging with and providing leadership to the regions in developing their plans. For example, the System Operator has developed a National Freight Performance Strategy for CP7, a key aspect of its CP7 freight growth plan. This performance strategy acts as a framework for the regions' plans and includes initiatives to be delivered in collaboration with freight train operating companies (e.g. best practice agreements for third party connections to the network). We can see some evidence of this featuring as part of the regions' freight growth plans and we continue to work with the System Operator to develop the actions needed to deliver on these plans in CP7. Other System Operator-led work in this area includes the continuation of the Freight Escape video series, promoting the benefits of freight with Network Rail and to stakeholders.

Caledonian Sleeper performance was good, but CrossCountry performance was below target

There are two National Passenger Operators: Caledonian Sleeper and CrossCountry. Network Rail's delivery of performance to the Caledonian Sleeper has been consistently above target and its delivery of performance to CrossCountry has been consistently below target. However, a large proportion of the performance issues on CrossCountry were attributed to the train operator.

F.17 The System Operator's performance against its scorecard for Caledonian Sleeper was consistently above target and improving across the final year of CP6.

Caledonian Sleeper's train performance, as measured using Right Time Arrival MAA, was 86.0% at the end of CP6 above the target of 80%.

F.18 The System Operator's performance against its scorecard for CrossCountry was not as good. The MAA for Time to 3 was 67.9% against a target of 68.9%. Its Time to 15 target was missed marginally: it delivered 93.2% against a target of 93.4%. Cancellations were at 8.4%, which was above the target of 3.88%. While Network Rail issues (e.g. non-track assets) had a significant impact on performance in the year, CrossCountry's own train crew issues were the biggest factor.

F.19 We will continue to keep the System Operator's delivery of performance to CrossCountry under review during CP7.

Development projects

The System Operator has adopted a more modular approach to development projects following the closure of ITTS.

F.20 Following the closure of the ITTS programme, around £16 million of unspent capital funding was returned by the System Operator to the wider Network Rail budget, recognising that work budgeted for would now not be done. (This was in addition to £25 million returned by ITTS in the first three years of CP6 against the original budget). For the remainder of CP6 and CP7, the System Operator has adopted a more targeted approach through a series of smaller IT projects supporting timetable production and capacity planning. This decision, which was informed by stakeholder consultation, was accepted in our PR23 final determination. The projects have defined their benefits and have governance systems in place, which we will continue to monitor.

F.21 The objectives for these projects focus on developing and enhancing systems which support timetable production. The largest is a replacement for the access planning system, focusing on more effective management of closures of the network for engineering work. Following the issue in Year 4, where poor planning caused Network Rail to close both main lines between England and Scotland at the same time for a weekend, the System Operator has responded positively and made improvements to processes and governance during Year 5. We consider there is now a robust set of arrangements in place to avoid an unplanned repeat and to better communicate with affected stakeholders including Transport Scotland.

F.22 In our mid-year letter on performance, we identified several projects where the System Operator was working to use technology to automate and improve the production of the timetable. The delivery and rollout of tools to identify delays and opportunities to improve the timetable's performance is underway. Reducing timetable delay incidents is a key success measure for a number of the IT systems. There has been a consistent decrease (improvement) in the level of these incidents for several years to historically low (good) levels and we are looking to see a continuation of this.

Structure and people

Senior leadership churn affected the System Operator for half the year. Positive progress was made on ensuring capacity planning was adequately staffed, though gaps remain in other areas.

F.23 The System Operator hit its CP6 efficiency target of £53 million. In line with reduced delivery, there was an underspend in operating expenditure (£5.9 million) and a small overspend in capital (£1.2 million, though reflecting that this was a revised budget after funds were returned following the closure of the ITTS programme). A significant contribution to reduced operating expenditure was staff gaps in critical areas such as capacity planning. Initiatives were put in place to attract, train, and retain staff to manage this issue which has reduced the risk to delivery. However, thinly stretched expert resources in technical areas such as access management was an element identified in delayed delivery of some of the System Operator's longer-term actions and improvements.

F.24 At a senior level, the System Operator did not have a permanent Group Director in place between August 2023 and the end of April 2024. We think there has been an inevitable impact on the System Operator's delivery of longer-term projects and clarity of strategic direction.

F.25 We raised concerns about the System Operator's ability to influence the regions and drive the adoption of best practice (particularly in areas, such as freight performance and the delivery of network capability information, where the System Operator is accountable but the regions are responsible). The System Operator has proposed to clarify its role into three pillars: areas where it takes a leadership role; where it provides services to the regions; and where it takes an assurance role on the regions' activities.

F.26 The freight teams from Great British Railways Transition Team (GBRTT) and Network Rail were merged, so that there is now a single team covering freight, with the intention to enhance collaboration and efficiency. Supporting this planned whole system thinking approach, it is important that the System Operator and the regions have a shared understanding of their roles and we will continue to monitor the further implementation of this approach.

Annex G: Performance of Network Rail's Wales & Borders route

Summary

Wales & Borders route's delivery of train service performance improved during the year but has not yet reached an acceptable level. The reliability of the route's assets deteriorated.

Overview

G.1 The Wales & Borders route is located in Network Rail's Wales & Western region. It operates and maintains the railway across Wales and the border counties of England. The route links major towns and cities including Cardiff, Newport, Swansea, Wrexham and Shrewsbury.

G.2 Its main railway lines are the South Wales Main Line from Swansea to London Paddington via Bridgend, Cardiff, Newport and the Severn Tunnel and the North Wales Main Line from Holyhead to Crewe.

Source: Map provided by Network Rail

Headline performance during Year 5

G.3 During Year 5 of CP6 (April 2023 to March 2024), Wales & Borders route's delivery of train service performance improved, more markedly so for freight train performance. We initiated an investigation into the wider Wales & Western region due to the unacceptable levels of performance at regional level. We found Network Rail to be in continuing breach of its network licence by failing to secure the operation and maintenance of the network in accordance with best practice.

G.4 The route's asset reliability worsened during the year and the reliability of track in particular remains a concern.

G.5 The annex on the Wales & Western region provides detail on the region's asset sustainability, financial performance and health and safety.

Network Rail's contribution to train service performance improved but is not yet at an acceptable level

Network Rail's contribution to both passenger and freight train service performance on the Wales & Borders route improved during Year 5 but did not meet the route's targets.

Passenger and freight train service performance

G.6 Network Rail's contribution to passenger train performance on the Wales & Borders route stabilised in the first half of Year 5 and began to improve in the second half.

G.7 Despite this, On Time performance fell from 53.9% at the end of Year 4 to 52.8% at the end of Year 5.

G.8 The route's freight performance (as measured by the regional Freight Delivery Metric (FDM-R)) improved throughout the year to end at 88.5%. For comparison, this was below Wales & Western's regional regulatory floor of 92.6% and worse than the target that the route had set itself of 92.3%. The improvement in freight performance was aided by the ending of industrial action.

G.9 The delay the route caused to passenger train operators improved, reversing nearly two years of passenger train performance deterioration. Network Rail-attributed delay on the route was 2.32 minutes per 100 train kilometres (CRM-P) in Year 5, compared to 2.43 minutes in Year 4. For comparison, this is worse than the region's regulatory floor of 1.92 and on a par with the route's performance in Year 3 (2.34). It also missed the target that the route had set itself of 2.19.

Licence investigation into train performance

G.10 While Network Rail's contribution to train performance on the Wales & Borders route has been improving it remains below expectations, and Network Rail's contribution to train performance on Western, the region's other route, continued to deteriorate. Therefore, on 29 November 2023 we initiated an investigation into Network Rail's compliance with the Network Licence in the Wales & Western region. We have included a summary of the investigation's findings in the annex on the Wales & Western region.

Challenging start to the year, but improving train performance

G.11 The Wales & Borders route had a difficult start to Year 5, with a rise in external delay driven by fatality, trespass and vulnerable person incidents. External delay continued to be a challenge for the route into the middle of the year.

G.12 The route was also impacted by severe weather. Storm Noa in April 2023 led to blanket speed restrictions. A short notice closure of Abbey Foregate signal box also impacted performance for a number of days.

G.13 One of the most significant incidents of the year occurred in May 2023 when a signalling cabinet fire near Marshfield in Wales led to 17,800 minutes of delay over several days. The cause of the fire was a failed cable tie. Although these cable ties had previously been identified as unsuitable, Network Rail had not replaced all of them. Network Rail could have done more to prevent this incident, but the incident itself was well-managed with good cross-industry coordination.

G.14 During the year, Network Rail supported the change of Wentloog freight terminal into a 24-hour operation, forming a working group to support the performance of these services.

G.15 During the autumn and winter months, the route was affected by multiple named storms. Storms Babet and Ciaran caused multiple flooding issues across the route. A power incident caused a cable failure which resulted in over 4,000 minutes of delay on the North Wales Coast Line. Railhead treatment train operations to prevent wheel slip from season leaf fall was poor in autumn 2023. The route must make sure that this is not repeated in 2024 and that it has effective contingencies in place.

G.16 The Wales & Borders route has continued to deliver and further develop its performance recovery plan. It has focused its performance improvement on the ‘7Rs’ of research, repetition, risk, reliability, resilience, restrictions, and resource. While the route had a challenging start to the year, it has successfully improved its train performance and achieved some consistently good periods of performance in the latter half of the year. The route must make sure that it continues to deliver its performance recovery plan, implement the recommendations set out in our Wales & Western investigation report and maintain its improving performance trajectory.

Asset reliability deteriorated

Asset reliability in the Wales & Borders route worsened in Year 5 driven by a decline in the reliability of track and electrical power assets. The renewal of the historic Barmouth Viaduct was successfully completed.

Asset reliability worsened during the year

G.17 Asset reliability on the Wales & Borders route, as measured using the Composite Reliability Index (CRI), worsened during the year. The route finished the year with a CRI score of -23.7% against a scorecard target of -19.3%.

G.18 This means it is 4.4 percentage points below its annual scorecard target, and 23.7% worse than it was in the final year of CP5.

G.19 CRI is a composite measure of seven asset groups, and the reliability of three of these was both below the route's target and worse than at the end of CP5 (track, points, buildings). Additionally, while electrical power achieved its reliability target and improved during the year, its reliability was 15.3% worse than at the end of CP5. The reliability of track continued to decline throughout the year. It ended Year 5 with a CRI score of -11.4%.

G.20 Vegetation management has been a major issue of focus for the route over the year. The route completed its planned programme of removing dead, diseased and dying trees on the South Wales Main Line. This work was prioritised in order to remove the risk of blanket emergency speed restrictions on the South Wales Main Line. We will continue to monitor the progress that the route is making on its vegetation clearance works.

Barmouth Viaduct renewal completed

G.21 The final stage of the four-year programme to restore the grade II listed Barmouth Viaduct in North Wales was completed, and the viaduct reopened to train services in December 2023. The structure is Wales' longest viaduct and the longest wooden railway bridge in Britain. The bridge was found to be in very poor condition when work began with many timber elements having decayed significantly and a large portion of the metallic elements having corroded. A 13-week closure was needed to complete the final stages of the restoration.

Annex H: Perfformiad llwybr Cymru a'r Gororau Network Rail

Crynodeb

Bu gwelliant ym mherfformiad gwasanaethau trên llwybr Cymru a'r Gororau yn ystod y flwyddyn ond nid yw eto wedi cyrraedd safon dderbyniol. Aeth asedau'r llwybr yn llai dibynadwy.

Trosolwg

H.1 Mae llwybr Cymru a'r Gororau wedi'i leoli yn rhanbarth Cymru a Gorllewin Lloegr Network Rail. Mae'n gweithredu a chynnal a chadw'r rheilffordd ledled Cymru a siroedd gororau Lloegr. Mae'r llwybr yn cysylltu trefi a dinasoedd mawr gan gynnwys Caerdydd, Casnewydd, Abertawe, Wrecsam ac Amwythig.

H.2 Ei brif reilffyrdd yw Prif Reilffordd De Cymru o Abertawe i Paddington trwy Ben-y-bont ar Ogwr, Caerdydd, Casnewydd a Thwnel Hafren a Phrif Reilffordd Gogledd Cymru o Gaergybi i Crewe.

Ffynhonnell: Darparwyd y map gan Network Rail

Perfformiad cyffredinol yn ystod Blwyddyn 5

H.3 Yn ystod Blwyddyn 5 Cyfnod Rheoli 6 (mis Ebrill 2023 i fis Mawrth 2024), bu gwelliant ym mherfformiad gwasanaethau trên llwybr Cymru a'r Gororau, a'r gwelliant amlycaf mewn perfformiad trenau nwyddau. Cychwynasom ymchwiliad i ranbarth ehangach Cymru a Gorllewin Lloegr yn sgil safonau annerbyniol perfformiad ar lefel ranbarthol. Canfuom fod Network Rail yn parhau i dorri eu trwydded rhwydwaith trwy fethu â sicrhau bod y rhwydwaith yn cael ei weithredu a'i gynnal a'i gadw yn unol â'r arferion gorau.

H.4 Gwaethygodd dibynadwyedd asedau'r llwybr yn ystod y flwyddyn ac mae dibynadwyedd y trac yn enwedig yn parhau'n destun pryder.

H.5 Mae'r atodiad ar ranbarth Cymru a Gorllewin Lloegr yn rhoi manylion ar gynaliadwyedd asedau, perfformiad ariannol ac iechyd a diogelwch y rhanbarth.

Mae cyfraniad Network Rail at berfformiad gwasanaethau trên wedi gwella ond nid yw wedi cyrraedd lefel dderbyniol eto

Mae cyfraniad Network Rail at befformiad gwasanaethau trenau teithwyr a nwyddau ar lwybr Cymru a'r Gororau wedi gwella yn ystod Blwyddyn 5 ond ni chyrhaeddodd dargedau'r llwybr.

Perfformiad gwasanaethau trenau teithwyr a nwyddau

H.6 Fe wnaeth cyfraniad Network Rail at berfformiad trenau teithwyr ar lwybr Cymru a'r Gororau sefydlogi yn hanner cyntaf Blwyddyn 5 a chychwyn gwella yn yr ail hanner.

H.7 Er gwaethaf hyn, disgynnodd perfformiad Ar Amser o 53.9% ar ddiwedd Blwyddyn 4 i 52.8% ar ddiwedd Blwyddyn 5.

H.8 Fe wnaeth perfformiad cludo nwyddau'r llwybr (fel y mesurir gan y Metrig Cludo Nwyddau rhanbarthol (FDM-R)) wella drwy gydol y flwyddyn i ddiweddu ar 88.5%. I gymharu, roedd hyn islaw llawr rheoleiddio rhanbarthol Cymru a Gorllewin Lloegr o 92.6% ac yn waeth na'r targed o 92.3% roedd y llwybr wedi'i osod iddo'i hun. Cyfrannwyd at y gwelliant mewn perfformiad cludo nwyddau gan weithredu diwydiannol yn dod i ben.

H.9 Bu gwelliant yn yr oedi a achosodd y llwybr i weithredwyr trenau teithwyr, gan wrthdroi bron i ddwy flynedd o ddirywiad mewn perfformiad trenau teithwyr. Roedd oedi a briodolwyd i Network Rail ar y llwybr yn 2.32 munud i bob 100 cilometr trên (CRM-P) ym Mlwyddyn 5, o gymharu â 2.43 munud ym Mlwyddyn 4. I gymharu, mae hyn yn waeth na llawr rheoleiddio'r rhanbarth o 1.92 a fwy neu lai'r un fath â pherfformiad y llwybr ym Mlwyddyn 3 (2.34). Roedd hefyd wedi methu'r targed o 2.19 a osododd y llwybr iddo'i hun.

Ymchwiliad trwydded i berfformiad trenau

H.10 Er bod cyfraniad Network Rail at berfformiad trenau ar lwybr Cymru a'r Gororau wedi bod yn gwella mae'n dal yn is na'r disgwyliadau, ac mae cyfraniad Network Rail at berfformiad trenau yng Nghorllewin Lloegr, llwybr arall y rhanbarth, wedi parhau i ddirywio. Felly, ar 29 Tachwedd 2023, cychwynasom ymchwiliad i'r

graddau mae Network Rail yn cydymffurfio â'r Drwydded Rhwydwaith yn rhanbarth Cymru a Gorllewin Lloegr. Rydym wedi cynnwys crynodeb o ganfyddiadau'r ymchwiliad yn yr atodiad ar ranbarth Cymru a Gorllewin Lloegr.

Cychwyn anodd i'r flwyddyn, ond gwelliant mewn perfformiad trenau

H.11 Cafodd llwybr Cymru a'r Gororau gychwyn anodd i Flwyddyn 5, gyda chynnydd mewn oedi allanol, a achoswyd gan ddigwyddiad angheuol, tresmasu a digwyddiadau'n ymwneud â phersonau bregus. Daliodd oedi allanol i fod yn her i'r llwybr hyd at ganol y flwyddyn.

H.12 Effeithiwyd ar y llwybr gan dywydd garw hefyd. Arweiniodd Storm Noa ym mis Ebrill 2023 at gyfyngiadau cyflymder ymhobman. Fe wnaeth cau blwch signalau Abbey Foregate ar fyr rybudd hefyd effeithio ar berfformiad am rai dyddiau.

H.13 Achoswyd un o ddigwyddiadau mwyaf arwyddocaol y flwyddyn ym mis Mai 2023 pan arweiniodd tân mewn cabinet signalau ger Marshfield ar gyrion Casnewydd at 17,800 munud o oedi dros sawl diwrnod. Achos y tân oedd methiant mewn dolen glymu cebl. Er y canfuwyd o'r blaen fod y dolenni clymu ceblau hyn yn anaddas, nid oedd Network Rail wedi rhoi rhai newydd yn eu lle ym mhob achos. Gallai Network Rail fod wedi gwneud mwy i rwystro'r digwyddiad hwn, ond cafodd y digwyddiad ei hun ei reoli'n dda gyda chydlynu da ar draws y diwydiant.

H.14 Yn ystod y flwyddyn, cyfrannodd Network Rail at y gwaith o droi terfynfa nwyddau Gwynllwg yn weithrediad 24-awr, gan ffurfio gweithgor i gefnogi perfformiad y gwasanaethau hyn.

H.15 Yn ystod misoedd yr hydref a'r gaeaf, effeithiwyd ar y llwybr gan sawl storm a enwyd. Achosodd stormydd Babet a Ciaran lawer o broblemau llifogydd ar hyd y llwybr. Achosodd digwyddiad pŵer fethiant mewn cebl a arweiniodd at 4,000 o funudau o oedi ar Reilffordd Arfordir Gogledd Cymru. Roedd gweithrediadau trenau trin rheiliau, i rwystro olwynion rhag llithro o ganlyniad i ddail yn disgyn, yn wael yn hydref 2023. Rhaid i'r llwybr sicrhau nas ailadroddir hyn yn 2024 a bod ganddo drefniadau wrth gefn effeithiol ar waith.

H.16 Mae llwybr Cymru a'r Gororau wedi parhau i weithredu ei gynllun adfer perfformiad a'i ddatblygu ymhellach. Mae wedi canolbwyntio ei welliant perfformiad ar yr hyn a elwir yn Saesneg yn '7Rs' – sef ymchwil, ailadrodd, risg, dibynadwyedd, gwydnwch, cyfyngiadau ac adnoddau. Er bod y llwybr wedi cael cychwyn anodd i'r flwyddyn, mae wedi gwella ei berfformiad trenau yn llwyddiannus ac wedi cyflawni rhai cyfnodau cyson dda o berfformiad yn ail hanner y flwyddyn. Rhaid i'r llwybr sicrhau ei fod yn parhau i gyflawni ei gynllun adfer perfformiad, gweithredu'r

argymhellion a nodir yn ein hadroddiad ymchwilio i ranbarth Cymru a Gorllewin Lloegr a chynnal ei daflwybr gwella perfformiad.

Dirywiad mewn dibynadwyedd asedau

Gwaethygodd dibynadwyedd asedau llwybr Cymru a'r Gororau ym Mlwyddyn 5 o ganlyniad i ddirywiad yn nibynadwyedd y trac ac asedau pŵer trydanol. Cafodd y gwaith o adnewyddu traphont hanesyddol Abermaw ei gwblhau'n llwyddiannus.

Gwaethygodd dibynadwyedd asedau yn ystod y flwyddyn

H.17 Gwaethygodd dibynadwyedd asedau ar lwybr Cymru a'r Gororau, fel y caiff ei fesur wrth ddefnyddio'r Mynegai Dibynadwyedd Cyfansawdd (CRI), yn ystod y flwyddyn. Cwblhaodd y llwybr y flwyddyn gyda sgôr CRI o -23.7% o gymharu â tharged cerdyn sgorio o -19.3%.

H.18 Golyga hyn ei fod 4.4 pwynt canran islaw ei darged cerdyn sgorio blynyddol, a 23.7% yn waeth nag oedd ym mlwyddyn olaf Cyfnod Rheoli 5.

H.19 Mesur cyfansawdd o saith grŵp o asedau yw CRI, ac roedd dibynadwyedd tri o'r rhain yn is na tharged y llwybr ac yn waeth nag ar ddiwedd Cyfnod Rheoli 5 (trac, pwyntiau, adeiladau). Yn ogystal, er bod pŵer trydanol wedi cyrraedd ei darged dibynadwyedd ac wedi gwella yn ystod y blynyddoedd, roedd ei ddibynadwyedd 15.3% yn waeth nag ar ddiwedd Cyfnod Rheoli 5. Parhaodd dibynadwyedd y trac i ddirywio yn ystod y flwyddyn. Gorffennodd Flwyddyn 5 gyda sgôr CRI o -11.4%.

H.20 Mae rheoli llystyfiant yn faes mae'r llwybr wedi canolbwyntio llawer arno yn ystod y flwyddyn. Cwblhaodd y llwybr y rhaglen roedd wedi'i chynllunio ar gyfer cael gwared ar goed sydd naill ai wedi marw, sy'n marw neu ag afiechyd, ar Brif Reilffordd De Cymru. Rhoddwyd blaenoriaeth i'r gwaith hwn er mwyn osgoi'r risg o gyfyngiadau cyflymder argyfwng cyffredinol ar Brif Reilffordd De Cymru. Byddwn yn parhau i fonitro'r cynnydd mae'r llwybr yn ei wneud ar ei weithiau clirio llystyfiant.

Cwblhau adnewyddu Traphont Abermawr

H.21 Cwblhawyd cam terfynol y rhaglen bedair blynedd i adfer Traphont Abermawr rhestredig graddfa II yng Ngwynedd, ac ailagorodd y draphont i wasanaethau trên ym mis Rhagfyr 2023. Hon yw traphont hiraf Cymru a'r bont reilffordd bren hiraf ym Mhrydain. Canfuwyd bod y bont mewn cyflwr gwael iawn pan gychwynnodd y gwaith gyda llawer o elfennau pren wedi pydru'n sylweddol a chyfran helaeth o'r

elfennau metalig wedi cyrydu. Bu angen cau'r draphont am 13 wythnos i gwblhau camau olaf y gwaith o'i hadfer.

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