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You can download this publication from www.networkrail.co.uk/annual-return

1. Executive Summary

An overview

The Annual Return 2016 reports on our achievements, developments and challenges during 2015/16. It is the formal means by which we report on our progress in delivering the outputs that were established by the Office of Rail and Road (the ORR) in its Final Determination for Control Period 5 (CP5), covering the period from 1 April 2014 to 31 March 2019.

The Annual Return follows the format agreed with the ORR and is prepared in accordance with Condition 12 of our network licence.

Where appropriate and possible, we have provided disaggregated data by the ten operating routes set out in the ORR's Final Determination; Anglia, East Midlands, Kent, London North East (LNE), London North Western (LNW), Scotland, Sussex, Wales, Wessex and Western. However, LNE and East Midlands and Kent and Sussex now operate as two routes (LNE & East Midlands and London South East (LSE)) meaning that for operating purposes we now have eight rather than ten routes. Consequently we have provided commentary for the combined LNE & East Midlands and LSE operating routes rather than at a more disaggregated level. For some measures we are only able to disaggregate data by our eight operating routes. For measures where route disaggregation is not appropriate or possible, data is disaggregated to England & Wales, Scotland and network-wide levels. Where a measure has been introduced or the reporting method has changed and data is unavailable, this is represented by a '-'.

Previous Annual Returns together with a summary of historical data are published on Network Rail's website [here](#).

Our 2016 Annual Report and Accounts are also published on our website and can be found [here](#).

We also provide annual financial performance information to the ORR. This information is designed to be relevant to the ORR and other persons for the assessment of access charges and to allow the financial performance of

Network Rail to be monitored against the ORR's Final Determination assumptions for CP5. Our 2016 Regulatory Financial Statements can be found [here](#).

This Executive Summary provides a high-level overview of our performance and key matters arising during 2015/16 and covers:

- our corporate scorecard
- shaping our future
- safety
- operational performance
- enhancements
- asset management
- digital railway
- sustainable development
- diversity and inclusion
- customer, passenger and lineside neighbour satisfaction
- transparency.

Later sections of this Annual Return provide more detailed information about our performance in 2015/16.

Contact us

If you have any questions or feedback about this Annual Return, please contact us at: annualreturn@networkrail.co.uk

To contact us about a safety concern, general queries or to make a complaint, please [visit our website](#) or call our 24 hour national helpline: **03457 11 41 41**.

You can find information on the [transparency](#) page of our website, or contact us at FOI@networkrail.co.uk or:

Network Rail, Freedom of Information
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Our Corporate Scorecard

How we performed in 2015/16

Table 1.1: Our corporate scorecard

Performance measure	Bonus weighting	Full-year Actuals		
		Worse Than Target	Target	Better Than Target
Safety				
Workforce Safety – Lost Time Injury Frequency Rate (LTIFR)	5.0%	0.540	0.511	0.492 0.483
Workforce Safety – close calls	3.0%	70,000	80,000	90,000 140K
Workforce Safety – close calls closed within 28 days (%)	2.0%	40%	50%	58 60%
Passenger Safety – Train Accident Precursor Indicator Model (PIM)	5.0%	1.986	1.942	1.899
Level Crossing Risk Reduction – Level Crossing Risk Indicator Model (LCRIM)	5.0%	1.262	1.893	2.524
Train Performance				
Public Performance Measure (PPM)	12.0%	89.1	89.7%	90.0% 91.0%
Cancellation and Significant Lateness (CaSL)	6.0%	3.1	2.9%	2.8% 2.4%
Freight Delivery Metric (FDM)	2.0%	92.5%	94.3	94.5% 95.0%
Financial				
Financial Performance Measure (FPM) – Total Efficiency Generated (£m) excluding Enhancements	15.0%	-£200m	-149	£0 +£200m
Financial Performance Measure – Enhancements (£m)	5.0%	-210	-£100m	£0 +£100m
Investment				
Top Ten Infrastructure Project Renewals and Enhancement Milestones	5.0%	6	8	9 10
All Delivery Plan Enhancement Milestones (%)	5.0%	60%	80%	81 100%
Asset Management				
Composite Reliability Index (CRI)	7.5%	7.5%	8.4%	9.3% 14.6
Renewals (Seven Key Volumes)	7.5%	90%	100%	101 110%
Satisfaction				
Customer – Survey Results	5.0%	3.05	3.15	3.32 3.49
Passenger – Survey Results	5.0%	81.0%	81.5	83.3% 86.0%
Lineside Neighbours – Survey results of Network Rail favourability amongst Lineside Neighbours who experience work	5.0%	51	52.0%	53.0% 55.0%

Using a corporate scorecard has given Network Rail a much clearer view of overall business performance. We believe that the scorecard represents a step change in the transparency of our performance, both internally and externally.



Safety

Lost time injury frequency rate (LTIFR): Means time lost to injuries and fatalities among Network Rail employees and contractors employed by Network Rail per 100,000 hours worked. A lower figure represents better performance. We exceeded our ten per cent LTIFR reduction target of 0.511 although we did not meet our stretch target of 0.483. There were 684 lost time injuries over 2015/16, compared to 674 in 2014/15.

Close calls: Means the number of close calls reported for any occurrence that has the potential to cause injury or damage – this can be an unsafe act or an unsafe condition. A higher number represents better performance. 140,021 close calls were reported. This exceeded both the target of 80,000 in the year and the scorecard maximum of 90,000. 58 per cent of these calls were closed out within 28 days exceeding the target of 50 per cent but not the meeting the scorecard maximum of 60 per cent.

Passenger safety: This measure is based on the number of high-risk events that happen that are identified as precursors to a passenger safety incident. In 2015/16

our target was to reduce the passenger component of train accident risk (where Network Rail is the risk controller) by a further 10 per cent. We exceeded our target and stretch target. This measure is particularly affected by wet and windy weather that causes incidents such as trees on the line, landslips and flooding.

Level crossing risk reduction: A measure of benefits achieved through closures of level crossings, downgrade in status and crossing enhancements. Safety at level crossings remains a priority area for Network Rail. In 2015/16 we closed 76 level crossings and continued to develop and deploy risk reduction measures to enable and encourage safe use. However, the scorecard target was not achieved largely due to an increase in near-misses with pedestrians. Pedestrian safety continues to be a cause for concern.

Train performance

Public performance measure (PPM): Means the percentage of all passenger train journeys that arrive on time. For long distance journeys 'on time' means within 10 minutes of scheduled arrival time, and for regional and London & South East within five minutes of it. A higher figure represents better performance. At the end of 2015/16 national PPM stood at 89.1 per cent, below our target of 90 per cent.

Cancelled and significantly late (CaSL) trains: Measures how many passenger trains are cancelled or are significantly (more than 29 minutes) late. A lower figure represents better performance. At the end of 2015/16 CaSL stood at 3.1 per cent, 0.3 percentage points worse than our scorecard target.

Freight delivery metric (FDM): Is our indicator of how many freight services have arrived at their destination on time. A higher figure represents better performance. We outperformed our regulatory target for 2015/16 of 92.5 per cent but did not meet our scorecard target for the year of 94.5 per cent.

Financial performance measure

Excluding enhancements: This measures our financial stewardship of the day-to-day running of the railway network by comparing income, operational expenditure and renewals expenditure to the baseline set at the start of the year. The baseline is adjusted to reflect the capital works actually delivered in the year to create a like-for-like comparison. Our net financial performance in 2015/16 was £149 million lower than planned, mainly due to higher renewals costs across signalling, track and civils projects, lower than planned efficiencies in Network Operations and higher compensation to operators following weather events which were partly offset by additional income generated from our commercial property team. As agreed with the ORR, higher renewals and enhancement costs score for the

financial performance measure at broadly 25 per cent of the difference between actual costs and the baseline.

Enhancements: This Measures our financial performance in delivering enhancement programmes by comparing expenditure to baseline set at the start of the year. The baseline is adjusted to reflect the progress made in delivering programmes during the year to create a like-for-like comparison. Our net financial performance in 2015/16 was £210 million lower than planned, with significant increases in costs across a range of key programmes, notably Great Western Electrification, leading to underperformance being recognised. The baseline used to assess performance this year is significantly lower than the baseline set by the Hendy review and since adopted for regulatory reporting purposes. This means that enhancements performance is lower in this measure than that used to calculate the regulatory asset base, on which the railway network valuation is based.

Investment

Infrastructure Projects renewals and enhancement milestones: Relates to the top ten renewals and enhancements milestones of our Infrastructure Projects (IP) work. We have achieved nine of our top ten milestones, exceeding our target for this measure. The milestone we did not meet, the introduction of first deployment traffic management simulators, is now forecast to complete early in 2016/17.

All enhancement milestones: Our investment projects are managed using the Governance for Railway Investment Projects (GRIP) approach, which has milestones at stages 3 and 6 of the 8-stage project process. Our performance against our corporate scorecard was assessed at 81 per cent in May 2016. The majority of delays were during project development rather than delivery and did not affect completion dates or rail services. The only project completion milestone that was delayed was a project re-baselined as part of the Hendy Review.

Asset management

Composite reliability index: Is a measure of the short-term condition and performance of our assets including track, signalling, points, electrification, telecoms, buildings, structures and earthworks. A higher figure represents better performance. We achieved a CRI score of 14.6 per cent exceeding our target of 8.4 per cent and our stretch target of 9.3 per cent.

Renewals (seven key volumes): This measures our delivery of our seven key volumes for renewals: plain line track, switches and crossings, signalling and equivalent units, underbridges, total earthworks, wire runs and conductor rail. We achieved our overall target. Some key volumes, including our renewal of

conventional plain line track and earthworks, performed strongly but we faced challenges in the delivery of other key volumes including switches and crossings and signalling. These were respectively caused by resource constraints and delays to major work in a number of locations.

Satisfaction

Customer satisfaction: This is a measure of how well Network Rail engages with its key customers, principally passenger and freight train operating companies in each of our routes. It is measured through the third party 'Customer Satisfaction Survey'. A higher figure represents better performance. At 3.05 (out of five), customer satisfaction fell short of both our target of 3.32 and the scorecard minimum of 3.15.

Passenger satisfaction: This is measured through the National Rail Passenger Survey commissioned by Transport Focus twice a year, which provides a network-wide picture of passenger satisfaction with rail travel. The year-end result is the average of the two surveys. A higher percentage represents better performance. We did not meet our target of 83.3 per cent, but met the scorecard minimum of 81 per cent.

Lineside neighbour favourability: This measures Network Rail's reputation amongst lineside neighbours who have experienced work near their home or place of work in the past year. We ask them 'how favourable/unfavourable are you towards Network Rail?' A higher figure represents better performance. At 51 per cent, lineside neighbour favourability did not meet our target of 53 per cent or our scorecard minimum of 52 per cent.



Shaping our Future

A year of reviews

2015/16 was a year of reviews. The most far-reaching was Nicola Shaw's review into the future structure and financing of Network Rail. Dame Collette Bowe reported on the lessons learnt from the planning process for Network Rail's CP5 rail enhancement programme while Sir Peter Hendy reviewed our CP5 enhancement portfolio. The key findings from each review are summarised below.

Bowe Review

In June 2015, Dame Collette Bowe, a non-executive member of the Board of the Department for Transport (DfT), was asked by the Government to report on lessons learnt from the planning process for Network Rail's CP5 rail enhancement programme. [The Bowe Review](#) was published on 25 November 2015 and concluded that CP5 was in some respects materially different and more ambitious than Control Period 4 (CP4), and included a large programme of work unlike that undertaken in recent years, namely electrification. The review confirmed that there was no single cause for the cost and timescale escalations encountered. It highlighted key areas to focus on to increase the likelihood that future planning is more effective, and ensure plans are both deliverable and affordable, including:

- clarifying the organisational responsibilities of the DfT, Network Rail and the ORR, particularly in light of the reclassification of Network Rail, which has changed the context significantly, and ensuring that the necessary capabilities are in place
- ensuring significantly more robust programme governance and oversight of the planning process, with clarity around schemes at all stages of development, and considering whether bespoke arrangements for very complex elements of the enhancements programme should be more widely used
- incorporating the views and needs of end users, especially in respect of how enhancements are delivered
- much stronger focus on deliverability, including the implications throughout for the supply chain, and the availability of people with the right skills (in all three organisations).

Network Rail and the DfT have both agreed not to commit to projects until full scoping, development and costing has taken place.

Hendy Review

In July 2015, Sir Peter Hendy CBE was appointed as the new Chair of Network Rail by the Secretary of State for Transport. At the Government's request, Sir Peter Hendy reviewed Network Rail's CP5 enhancement portfolio for England & Wales. [The Hendy Review](#) systematically examined every element of this programme reviewing costs and timescales and establishing robust estimates of both. His report set out which works can be delivered in a timely and affordable way during CP5. The report confirmed that no projects would be cancelled and the majority of programmes and projects will go ahead for delivery by 2019. In order to fund the increase in cost we are planning to release £1.8 billion of investment through the sale of non-core and lower value assets, including the sale of our property assets. The Government was also able to increase the limit on Network Rail's government borrowing by a further £700 million. This extra investment secures a Railway Upgrade Plan that delivers better stations, faster, more frequent and longer trains and a safer more reliable railway for millions of passengers and businesses. The new Railway Upgrade Plan is a more robust and deliverable plan but it is not without its own risks and challenges which Network Rail will work to address.

Shaw Report

Nicola Shaw's report to Government on the longer term future shape and financing of Network Rail – [The Shaw Report](#) – was published in March 2016. Her report, recommended that the rail network should be held as a national asset and a key public service. Her recommendations around ongoing devolution of the business represented, in her words, 'an evolution, extension and validation of a direction of travel already set in motion by the company'.

We had already accelerated our strategy of devolving power to the routes. We need to make faster decisions, focused on the needs of customers who hold us to account. From 2016/17 we will have route based scorecards, devised with our train operating company customers to reflect what is really important to them.

The Shaw Report also highlights, and we support, the need to bring third party funding into railway projects. We foresee private and third party contributions from those who benefit from the economic growth that greater railway capacity brings, and also investment from suppliers into enhancements like the Digital Railway that will increase railway revenue from which they can be rewarded.

Safety

Everyone home safe every day

Keeping people safe on the railway is at the heart of everything we do. Safety is a core value and key to the success of Network Rail. From our group board to every employee in every depot, station, signal box and office, our safety vision is that everyone who comes into contact with the railway goes home safe every day. We strive to find new ways to keep ourselves, colleagues, passengers and the public safe in all the work we do.

While safety performance improved across Network Rail during the year, we still have more to do. Initiatives such as regular safety hours ensure that more safety conversations are taking place across each route, and close call reporting and the close out of subsequent investigations increased significantly over the year.

Safety Management

Passenger Safety – In the past nine years, there have been no passenger fatalities as a result of a train derailment or collision. We continue to be the safest major mixed-use railway in Europe and one of the safest in the world.

Workforce Safety – In the past year, there have been no employee on-duty fatalities. ‘Slips, trips and falls’ remain the most common causes of accidents to our employee and contractor workforce. The number of lost time injuries ([RIDDOR](#) reportable 7+ days) has increased in the past year by 10.1 per cent. Our national programmes delivered through the Home Safe Plan risk reduction workstreams will provide a step-change in the safety of our workforce and contribute towards our target of eliminating all workforce fatalities and major injuries.

Public Safety – In the past year, there has been a 13 per cent reduction in the number of suicides across the network. We have worked closely with [Samaritans](#) to prevent and reduce the number of suicides on the railway. In January 2015 this partnership was extended until 2020 to allow our collaboration to continue long-term. We have also implemented a new ‘alert’ process which warns route teams of potential suicides on the network. Our suicide prevention campaign material has been updated to promote help-seeking behaviour within communities.

Close Calls – A Close Call is anything that has the potential to cause injury or damage, and can be reported by any Network Rail employee or contractor at any time, as long as it is safe to do so. We exceeded our target of 80,000 Close Calls, with a total of 140,021 Close Calls made. Improvements to the Close Call process

have been identified across the business and amendments have been made to the mobile app reporting tool to reflect this feedback.

Level Crossing Safety – Safety at level crossings remains a priority area for Network Rail and we continue to invest in a wide range of programmes to promote this. We work with national and local organisations to make level crossings safer and to educate people on how to use them correctly. In the past year, we closed 76 level crossings and continued to develop and deploy risk reduction measures to enable and encourage safe use. Over the past five years there has been a sustained reduction in the number of near misses with vehicle users. This year saw a ten-month fatality free period which was the longest such period on record and demonstrates that we are improving safety at our level crossings.

Occupational Health and Wellbeing

Network Rail is committed to promoting and protecting the health and wellbeing of all our employees.

Developing a supportive culture of wellbeing – Network Rail continues to be committed to mental health charity Mind’s ‘Time to Change’ campaign to reinforce our view that discrimination related to mental health is not acceptable. We have worked to increase willingness to disclose mental health issues across the organisation by developing and releasing a series of real-life stories about employees who had experience of mental health issues. There have been several hundred supportive comments for the individuals concerned within the comments section of Network Rail’s intranet following each article.

Occupational Health Referrals – Our strategic commitments to health and wellbeing highlight how we have worked to increase managers’ understanding and appreciation of Occupational Health (OH). The benefits of referral to our OH services have been emphasised, particularly the availability of advice and guidance related to health.



Operational Performance

Planning and operating the railway

Before the start of CP5, operational performance levels were much lower than anticipated in the ORR's CP5 Final Determination. It became clear that a number of regulated performance outputs would not be met during the first two years of the control period. Network Rail and the ORR therefore agreed to take an input-based approach to monitoring national PPM and CaSL during the first two years of the control period. The ORR decided to monitor regulated outputs at operator level and for Scotland, but monitor delivery of input plans in England & Wales. The ORR monitors the delivery of our CP5 performance plan, which details the key activities Network Rail is taking to improve performance.

By the end of 2015/16, 287 activity milestones in our CP5 Performance Plan were completed in England & Wales. 229 of these were completed early or on time and 58 were completed late. 91 milestones are yet to be delivered and are planned to be included in the plan for the remainder of CP5. Of these, 69 are planned to be delivered on schedule. 22 are expected to be completed late. At the end of 2015/16, 35 milestones were placed on hold or de-scoped, either because of plan changes or because a scheme has been replaced by an alternative opportunity.

In Scotland the ORR monitors outputs, and not the inputs in the CP5 Performance Plan. Notwithstanding this, in Scotland 42 activity milestones in the CP5 Performance Plan were completed at the end of 2015/16. 29 of these were completed early or on time and 13 were completed late. Three milestones will be delivered late. During 2015/16, nine milestones were placed on hold or de-scoped, either because of plan changes or because a scheme has been replaced.

Operational performance in England & Wales

England & Wales PPM at the end of the year was 88.9 per cent, 0.7 percentage points worse than our scorecard target; CaSL was 3.1 per cent, 0.3 percentage points worse than our scorecard target. The biggest contributor to this was performance in the London & South East sector where, amongst other issues, the challenges of the Thameslink Programme and the need to continue to operate a full service despite a reduction in network capability caused particular challenges in terms of service delivery along the Brighton Main Line and elsewhere. PPM in the LSE sector ended 1.5 percentage points short of target at 87.8 per cent. Delivery in the other two market sectors also both finished short of target: Long Distance PPM finished at 87.6 per cent, 0.7 percentage points short of target, Regional PPM finished at 91.4 per cent, 0.6 percentage points short of target.



Operational performance in Scotland

At the end of 2015/16, Scotland PPM was 90.6 per cent, 1.4 percentage points worse than the regulatory target but 0.1 percentage points better than 2014/15. Operational performance was worse in the latter part of the year due to poor weather conditions including major storms in November and December. Specific performance challenges in 2015/16 included: storms and subsequent flooding, line closures due to strong tides, overcrowding and station overtime. We worked with Transport Scotland and train operators to provide an enhanced service to keep people moving during the closure of the Forth Road Bridge, which resulted in additional network congestion in December and January.

Freight performance

At 94.3 per cent FDM, freight outperformed its regulatory target by 1.8 percentage points. This target has been achieved against a backdrop of significant structural change in the freight traffic market. There has been an unprecedented decline in the coal sector, and growth in the intermodal and construction markets which operate on already congested areas of the national rail network. The year has also seen a number of particularly significant incidents; notably the cancellations ahead of planned industrial action in May 2015, and the widespread flooding in the north of England and Scotland in the second half of the year.

Enhancing the Railway

A growing railway to meet growing demand

Network Rail is undertaking a huge five year upgrade plan to deliver a bigger and better railway, with more trains, as well as enabling longer and faster train services through longer platforms and the electrification of key lines. The end result will see a much better service for passengers. In 2015/16, Network Rail delivered £3.5 billion of enhancements to upgrade the railway across Great Britain.

Our work means that by the end of CP5 there will be 170,000 more seats into London at rush hour (a 20 per cent increase compared to pre-2014 levels), and 30 per cent more into the cities of the north. We are driving economic regeneration through new lines in the Borders and Oxfordshire and through newly modernised stations including Birmingham New Street, Manchester Victoria, London King's Cross and London Bridge. Other major projects include Thameslink, Crossrail and the comprehensive modernisation and electrification of the Great Western Main Line.

In 2015/16 in terms of enhancement milestones, we have delivered a greater number of project commissionings on schedule, improving on our performance in 2014/15. However, there are areas where we did not meet our performance targets including where our costs have exceeded the budgets set.

During 2015/16 it was recognised that project spend had, in a number of areas, increased significantly from our original plans. This led to the commissioning of the Hendy Review which resulted in a significant re-profiling and re-costing of major elements of the CP5 enhancement portfolio in England & Wales. The revised plan, which in some instances now stretches into our next control period, CP6, gives an increased level of security and certainty to both our customers and the supply chain, and to the taxpayer, on the delivery schedule and costs of the programme. We recognise the importance of delivering to this commitment.

The Enhancements Delivery Plan (EDP) sets out the outputs, scope and key milestones for every project and ring-fenced fund that Network Rail is committed to deliver in CP5. An update to the EDP covering England & Wales was published in March 2016 to support the Hendy review of Network Rail's enhancements programme for CP5.

The [full Hendy report](#) and our updated [March 2016 EDP](#) can be found on our website.

Some highlights of 2015/16

Over the year we delivered nine out of our top ten infrastructure project milestones. This is a measure on our corporate scorecard and includes both enhancements and renewals project milestones. Nine out of ten of these milestones were enhancements-related, and of these, we completed eight of the nine. Completion of the Borders Railway and Reading area station redevelopment, outlined below, contributed to this achievement.

Another key milestone completed in 2015/16 was the upgrade work on the Winchburgh Tunnel in Scotland, which was completed on time and on budget. This was achieved in 44 days, with 80,000 hours of work, 2,000 tonnes of poured concrete and 200 newly laid slabs of track. Engineers worked around-the-clock to complete what the Transport Minister described as 'the most significant piece of engineering work on the line since the Victorian era'. This forms a major part of the Edinburgh Glasgow Improvement Programme, which will reduce journey times by 20 per cent and increase passenger capacity by 30 per cent between Scotland's two biggest cities when it completes in 2016.



We also completed re-signalling in the Stafford area of the West Coast Main Line, with 78 new signals installed. This has boosted the reliability of the equipment on this section of the line and means all platforms at Stafford stations are able to accommodate trains in either direction. This is a part of a £250 million package of works to improve capacity and performance on the busy West Coast Main Line.

As part of the government sponsored Thameslink Programme, we completed infrastructure works, with tracks outside London Bridge station cut and moved to the north. This allowed old track to be dug up and rebuilt in time for Christmas and the next major stage of rebuilding. New tracks on the line towards Waterloo East were also installed and now carry trains over the new Borough Market Viaduct.

September 2015 saw the completion of the both the Birmingham New Street Gateway and Borders Railway Projects.

The Birmingham New Street Project was one of the most complex and challenging construction projects anywhere in the country. The old 1960s dark and overcrowded station has been transformed with a new concourse for passengers, offering more space, light and better accessibility into and throughout the station. Over 170,000 people use Birmingham New Street every day, making it one of the busiest stations outside London with numbers set to increase. Birmingham New Street has the highest rate of mobility assistance requests of any Network Rail managed station. By engaging with different station users and specialist organisations, the new station was designed and operates at an industry beating standard for accessibility. Birmingham New Street was officially reopened by Her Majesty the Queen on 19 November 2015.



On 26 February 2016, Network Rail, in partnership with Atkins, won the 'Station Excellence' award at the Rail Business Awards for the new Birmingham New Street station.

In September 2015, the Scottish government-funded Borders Railway was officially opened by Her Majesty the Queen. At 30 miles, it is the longest new domestic railway built in Britain in over a century. It has re-established passenger services from Edinburgh through Midlothian to Tweedbank for the first time in over 40 years, connecting a number of previously isolated rural and semi-rural communities. The project was completed on time and on budget. The new line consists of seven new stations joined by 30 miles of new track. At its peak, more than 1,100 people were working on the project, refurbishing or building 137 bridges and laying track across almost 100,000 sleepers. In April 2016, Borders Railway was named the Royal Institution of Chartered Surveyors' Scottish infrastructure project of the year.



In addition to the progress on these major programmes, further scorecard milestones completed included; signalling commissioning from Marylebone to Oxford Parkway; gauge clearance from Bristol parkway to Plymouth, Reading to Westbury and Westbury to Cogload Junction via Castle Cary; GRIP 5 stage gate review on the Wessex Capacity Programme.

Bank Holiday working

The Bank Holiday periods are essential to allow us and our partners to carry out major enhancements, and we aim to do this with minimum disruption.

The high profile delays and consequent customer disruption experienced over Christmas 2014 prompted a large amount of work to improve our project and possession planning, especially across key Bank Holiday periods. This focus has resulted in the successful delivery of a series of major enhancement projects over Bank Holidays in 2015/16.

Over Easter 2015, £100 million of investment and improvement work was completed successfully, on time and on budget, across Britain's railway. London Bridge saw track, signalling and platform improvements as part of the £6.5 billion Thameslink Programme to transform north-south travel to and through London.

Work to redevelop Reading station and the surrounding track was also completed. Reading station is one of the busiest rail hubs in Britain, used by nearly 20 million passengers a year. The project commenced in 2011, and involved rebuilding the station, upgrading the railway in the area, including redesigning the complicated track layout, completing new depot connections and building a viaduct to the west of Reading. This has removed one of the worst bottlenecks on the network.



A bridge south of Watford Junction station was demolished and a new one installed enabling line speeds to be increased through the area. As part of a wider £81 million upgrade scheme, old track, signalling and junctions were also replaced.

Over the August Bank Holiday period, Network Rail successfully completed its biggest single track renewals project to date and the biggest on the Western route for 40 years, lowering and replacing ten kilometres of track in Bath and its surrounding area in preparation for a new fleet of faster, quieter and greener

electric trains. As part of the £50 million project, we also installed 11 new switches and crossings, enabling trains to move from one track to another. The new lower track has created the additional headroom needed for the overhead lines that will power the electric trains, while preserving Bath's historic architecture.

Over the August Bank Holiday, we installed new track at Ipswich tunnel on the Great Eastern Main Line to improve reliability, and overhead lines were upgraded at Brentwood.

Christmas 2015 saw more than 20,000 people complete more than 500 upgrade and maintenance projects across the country whilst also seeking to minimise disruption after high winds and severe flooding caused widespread damage to the rail network. This included severe damage to the sea wall at Dover resulting in the closure of the line between Dover Priory and Folkestone Central.

On the LNE route, work was carried out on more than 30 worksites including the upgrade of track and overhead lines, improvements at stations, bridge replacements and £100 million investment in signalling in the Lincolnshire area.

On the LNW route, all key possessions and works, including those at Banbury, Weedon, Stafford, Wolverhampton station, Birmingham New Street station, Crewe and Chester, were handed back on or ahead of time. At Preston, switches and crossings were upgraded and the replacement of a 150 metre stretch of track on the approach to the station was completed.

In Scotland, the Edinburgh Glasgow Improvement Programme (EGIP) commissioned a new signalling system on the line between the Anniesland branch and the up and down single lines, including the installation of new switches and crossings and signalling. Works also continued to prepare the main Edinburgh-Glasgow line for electrification, including the demolition of three bridges.

During the Easter 2016 Bank Holiday, Network Rail completed 450 engineering projects on time, despite challenging weather conditions brought about by Storm Katie on 28 March 2016. The £60 million Easter investment programme saw the successful construction of new station facilities, longer platforms, extra tracks, new junctions and the installation of thousands of new, more reliable equipment.

In Manchester, a major nine-day programme of work was started to improve the track layout at Manchester Victoria station as part of Network Rail's Northern Hub project. Between Reading and London, work was completed to make way for electric trains and Crossrail, and in Kent signals were upgraded to improve the reliability of the railway for passengers. In Scotland, work continued to replace 1,800 metres of ageing track leading up to Glasgow Queen Street station to allow faster, greener and longer trains to run between Glasgow and Edinburgh.

Asset Management

A better railway for a better Britain

In 2015/16, our Composite Reliability Index (CRI) score which measures the short-term condition and performance of our assets including track, signalling, points, electrification, telecoms, buildings, structures and earthworks was significantly better than target, reflecting improved performance across the majority of assets. We achieved a CRI score of 14.8 per cent exceeding our scorecard target of 8.4 per cent and our stretch target of 9.3 per cent.

Track reliability was in line with target, with the exception of service affecting track failures which fell one per cent short of target. Since a change to track maintenance standards to address the risk of derailments, Temporary Speed Restrictions (TSRs) have increased affecting train services. All routes outperformed targets for 'Poor Track Geometry' as a result of bespoke route plans responding to the national challenge to reduce repeat faults.

The reliability of our telecoms assets has been challenging since the start of CP5. There has been underperformance across all routes associated with the Global Systems for Mobile Communication Railway (GSM-R). National reliability improvement plans have been implemented in 2015/16.

In 2015/16, there were no train derailments as a result of earthwork failures. There has now not been a train derailment from an earthwork failure since 2012/13; the longest period since record keeping began. Earthworks assets are particularly sensitive to rainfall and 2015/16 saw the second wettest winter since records began. This has pushed the five-year moving average of earthwork failures to 123, well above the CP5 entry figure of 106.

Since the start of CP5, and as part of the Hendy re-plan, Network Rail has developed proposals to defer some renewals work to CP6 and beyond. Through this process we have been working closely with both the DfT and the ORR to develop a revised Delivery Plan for the remainder of CP5. Our own analysis suggests limited long run impact on sustainability, providing renewals spend is increased during CP6 and CP7 to compensate. Asset condition sustainability has remained relatively stable in 2015/16, despite some deferrals of renewals work. Throughout this Annual Return, we provide targets as stated in the 2014 Delivery Plan and revised targets included in the 2015 Business Plan.

Delivery of renewals in 2015/16 has varied by asset and route. However, overall delivery of renewals activity has increased in 2015/16 compared to 2014/15. Schemes throughout the year to improve planning and delivery of work have

positively impacted delivery of track renewals. A number of large signalling schemes have been commissioned throughout the year but some schemes have been deferred to 2016/17 following reviews of safety and deliverability. Within the overall buildings and civils portfolio there has been on-going workbank development throughout the year to achieve the best possible efficiency throughout CP5. Despite variable route results, overall volumes delivery for electrification and fixed plant assets has been in line with the 2015 Business Plan throughout the year, although some activity has been deferred to later in CP5 in order to deliver these works safely and efficiently.



Maintenance volume delivery in 2015/16 was variable across a range of reported activities. Due to the nature of maintenance activity, plans created at the start of a year do not always accurately reflect the actual maintenance requirements. There have been challenges in terms of available resource and access and the need to undertake unplanned reactive work. Notwithstanding this, more frequent use of the plain line pattern recognition train has driven early identification and intervention for some track maintenance activities. There are understood backlogs in delivery in some areas of the civils portfolio as well as delays to the sign-off of examinations.

The use of intelligent infrastructure and interpretation of data has led to a more preventative approach to maintenance, particularly within the signalling portfolio. This has had a positive effect on overall asset reliability.

Digital Railway

A vital enabler for national economic success

The Digital Railway Programme

With the railway already full on some major routes, and with passenger numbers set to grow significantly in the next twenty years, Britain needs a strategy to unlock capacity from existing infrastructure that allows regions to benefit from more trains, better connections and greater reliability. Digital technology enables this by allowing trains to run closer together. It will allow us to achieve more from what we already have. This is vital, too, for the freight industry and its users, who currently suffer from a shortage of pathways.

There is a fundamental barrier to this more productive and cost-effective railway: the constraints imposed by signalling designed for a pre-digital age.

Historically, the most effective way to keep trains separated safely from each other has been to divide tracks into fixed sections (blocks) and use signals to only allow a train to enter a block once the preceding train has vacated. Technology and innovation now offer us the opportunity to move beyond analogue signalling and train control – potentially unlocking up to 40 per cent more capacity from the existing network as demonstrated in a study of the South West Main Line.

Looking ahead for Digital Railway

In November 2015, the Digital Railway Programme delivered its [framework business case](#) and proposed rollout plan for an accelerated programme of digital infrastructure. The next stage of the business case will be published in autumn 2016, alongside the industry's advice for investment in CP6 (2019 – 2024). This will include a 25 year baseline option for a Digital Railway that is deliverable and based on proven technology, sustainable, and policy compliant. It will also assess the option to deliver a Digital Railway in a 15 – 20 year timeframe with greater benefits using an upgraded version of the technology.

Whilst the Digital Railway is underpinned by technology, it is a transformation programme that will impact all parts of Britain's railway industry – everything from driver training to the specification of rolling stock. We have established a cross-industry advisory group to lead the development of the programme. Chaired by Network Rail, the group includes senior leaders from the DfT, Rail Delivery Group, passenger train operators, freight train operators, Transport for London (TfL), Crossrail, the ORR, and the Rail Supply Group.

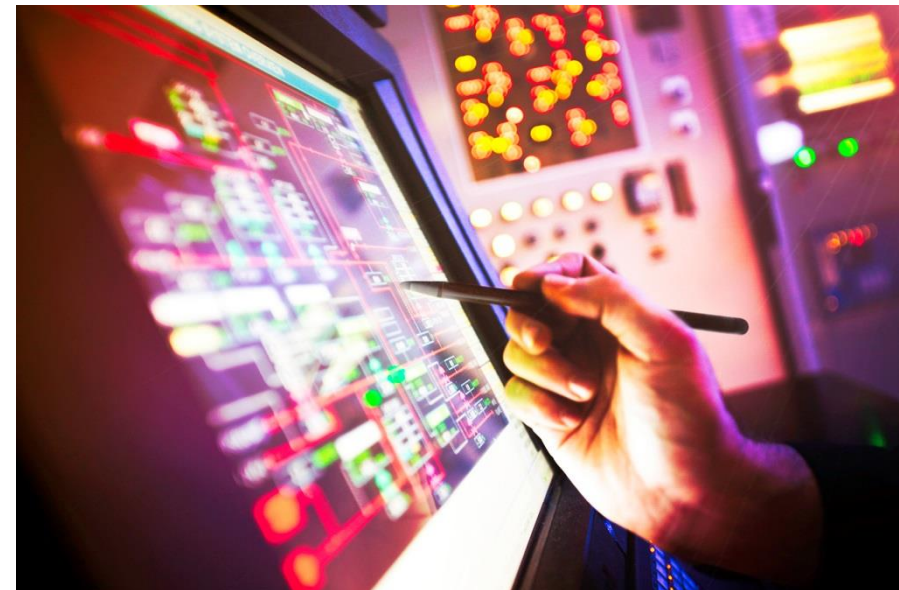
Enablers to the Digital Railway

Implementing the Digital Railway vision through an accelerated programme is vital to meeting the future growth in passenger demand and providing the capacity needed on the rail network for the benefit of passengers and freight users, and to connect homes and businesses across Britain.

However, modernisation beyond 2019 is currently unfunded. A commitment to additional future investment is needed now to transform the network and underpin economic growth across Britain.

Support from the Government and the rail industry for an accelerated rolling programme of digital modernisation of the railway will give confidence to our supply chain and provide the momentum needed to enable Britain's railway to provide more capacity, better connectivity and improved reliability.

For more information on the Digital Railway please visit: www.digitalrailway.co.uk.



Sustainability

Delivering a railway fit for the future

For Network Rail, sustainability means making sure that everything we build, manage, maintain or develop today leaves a positive legacy for future generations.

We believe that good management of our economic, social and environmental impacts is key to maintaining a strong and prosperous business. We aim to drive efficiency, build trust and create long term value for our stakeholders.

We are building momentum across our business, amongst our industry partners and across our supply chain to deliver our sustainable development priorities. We are giving direction and focus to existing initiatives, developing new ones and joining up activity across our business and industry.

We are committed to reducing both our carbon footprint and energy usage. We recognise that the carbon emissions embodied within the creation of materials and construction processes form part of our overall carbon footprint. In 2015/16 we identified ten projects to test the rail sector's adopted tool for measurement of embodied carbon. This will enable us to understand the opportunities to reduce embodied carbon during project planning and design and reduce our overall carbon footprint.

Network Rail is one of the largest land owners in Great Britain, managing 20,000 miles of railway and the land either side of the embankments. Our network extends to most of Great Britain, running through Areas of Outstanding Natural Beauty, Sites of Special Scientific Interest and also through towns and cities where people live and work. We need to balance our responsibilities towards sensitive ecological features and consideration for our 22 million lineside neighbours (people who live or work within 0.5 kilometres of a line).

In August 2015 we published our new Environmental Policy which can be found [here](#). Our policy commits us to improving our environmental performance and leaving a sustainable legacy for future generations. We are developing a new strategy which will allow us to drive this improvement in a focused and risk-based way.

From 2016/17, our approach to charitable giving is being revised in line with government requirements. We now support charitable activities with giving in kind (for example time, premises and spare advertising) rather than cash as well as continuing our successful employee fundraising and payroll giving support.



Diversity and Inclusion

A more open, inclusive and diverse organisation

Our aim to deliver a Better Railway for a Better Britain is underpinned by our knowledge that world class businesses are customer driven, accountable and take account of the diversity of the communities that they serve, and that to be effective they attract and retain talent and inspire all those that work there. Our approach is to nurture a long-term talent pipeline through apprenticeships, graduate programmes and to support continuous professional development. Our strategy 'Everyone' aims to improve diversity and inclusion within the business. More information is provided within the ['Sustainable Development' section of this Annual Return](#).

By creating a more open, diverse and inclusive organisation we will be safer and perform better. Implementing diversity and inclusion will make us more receptive to new ideas, creativity and innovation, and make sure that everyone is better engaged and able to contribute fully to the business. We believe that having a workforce with a wide range of expertise, approaches and backgrounds will increase our understanding of our passengers' needs and the potential barriers to access.

Key performance indicators to track performance have been developed and are currently being rolled out. These will be reviewed against diversity targets and the results will be published in early 2017. We use our membership of a number of benchmarking diversity organisations to help us understand how we compare with other businesses and sectors.

So far, over 3,500 managers have received inclusive leadership training, and there are currently 250 diversity champions, 50 trade union equality representatives, 35 workstreams and over 1,300 staff network members.

Positive results are beginning to be seen in a number of areas. For example, this year the resourcing workstream focused on improving graduate hires from under-represented groups. We developed a branding and outreach strategy to encourage applications, particularly from female engineers, and invested in selection tools to remove bias. As a result, 29 per cent of Network Rail's 2015/16 graduate intake were women (24 per cent in 2014/15) and 31 per cent were from Black, Asian or Minority Ethnic (BAME) groups (18 per cent in 2014/15). The percentage of female engineering recruits rose to 16 per cent in 2015/16 (six per cent in 2014/15).

At a company-wide level 15.4 per cent of our workforce is female (14.7 per cent in 2014/15) and 6.7 per cent of our workforce is from BAME groups (6.1 per cent in 2014/15).

Further details on the diversity of our board and senior management can be found in our Annual Report and Accounts which can be found [here](#).

Inclusive design

In October 2015 we launched 'Spaces and Places for Everyone', our inclusive design strategy. Developed in consultation with a range of internal and external parties, it describes how we will get better every day at offering more inclusive environments, from railways to workplaces. We want to see a railway that is more accessible, convenient and welcoming to as many people as possible. We care about our passengers and we want everyone to have a positive, seamless journey. Our vision means that our offices and depots will also be better able to accommodate our workforce.



Customers and Communities

Engaging with our stakeholders

Customer satisfaction

Customer satisfaction is an assessment of how well Network Rail engages with its direct customers; principally passenger and freight train operators. Customer satisfaction is measured through the 'Customer Satisfaction Survey' carried out by a third party which takes into account the customer satisfaction achieved in each of Network Rail's routes.

In 2015/16, customer satisfaction at 41 per cent improved slightly from the previous year (40 per cent). However, overall satisfaction remains somewhat short of the all-time high of 66 per cent achieved in 2012/13.

Safety remains the highest scoring attribute in the survey. 73 per cent of customers are satisfied with Network Rail. The key drivers for improving our satisfaction score identified by the survey included improvements to 'delivering what we say we will' and 'taking ownership of issues'.

There are two areas where customer satisfaction has declined with statistical significance, 'delivery of enhancement projects' and 'access planning'. These have mitigated the incremental gains that have occurred for the other measures included within the survey.

We have also developed a Customer Service Maturity Model that was implemented for the first time in 2014/15. This model enables a national view of customer service in our operating routes. More detail is provided later in this Annual Return.

Passenger Satisfaction

The National Rail Passenger Survey (NRPS) is commissioned by Transport Focus. Passenger opinions of train services are collected twice a year from a representative sample of journeys, from a representative sample of locations. The latest results reflect the spring 2015 survey, which took place between January and March 2016.

More than 50,000 passengers a year are surveyed to produce a network-wide picture of passengers' satisfaction with rail travel. Passengers' overall satisfaction and satisfaction with 30 specific aspects of service can then be compared over time.

The percentage of passengers satisfied with their overall journey was 80 per cent, unchanged from the spring 2015 survey. At a route level, London South East and Wessex routes were the worst performing at 73 per cent and 80 per cent satisfaction respectively (although results in Wessex did improve by two percentage points over the survey in spring 2015). The highest performing routes were Scotland at 88 per cent (unchanged from spring 2015) and LNW at 86 per cent (improved one percentage point on spring 2015).

The full result of the Transport Focus spring 2016 survey can be downloaded [here](#):

Network Rail owns and manages 18 of Britain's biggest and busiest stations and we are able to directly influence satisfaction at these stations. In the autumn 2015 survey, overall passenger satisfaction at our managed stations achieved 83 per cent, one percentage point worse than the spring 2015 survey.

The highest scoring station was London St. Pancras, which achieved 95 per cent satisfaction, the largest improvement in passenger satisfaction since spring 2015, of seven percentage points was at Birmingham New Street. The lowest scoring station (57 per cent satisfaction) was London Bridge where significant project work to deliver the Thameslink Programme is ongoing.

Lineside neighbour satisfaction

Around five million people's homes either back on to or face the railway, while 22 million people live or work less than 500 metres from the railway. We conduct an annual survey which measures Network Rail's reputation amongst lineside neighbours who have experienced work near their home or place of work in the past 12 months. At 50.2 per cent, lineside neighbour favourability did not meet our target of 53 per cent.

We are working to make it easier for our stakeholders to talk to and hear from us about what we are doing. We aim to give notice about all of works we plan to undertake. However, sometimes safety critical repairs need to be carried out at short notice.

Transparency

Being a more open, honest and accessible company

We believe that being transparent both in how we work as a company and how we work with our stakeholders is integral to our success as a business.

We know that being more transparent will help us become a more efficient and responsive organisation, and make us more accountable to our stakeholders. We've made a start but we recognise that there is more to be done and we are committed to making transparency part of everything we do at Network Rail.

During the course of 2015/16 our work has focussed on four core areas:

Proactive publication

As part of our existing transparency commitment we publish new information four times a year. The type of information we have previously published include details about our level crossings, executive directors' expenses and a breakdown of our annual expenditure. In 2015/16 we published 28 categories of new information taking us to almost 100 categories in total. We received more than 260,000 hits to the transparency categories on our webpage which can be found [here](#).

Freedom of Information

In March 2015, Network Rail became subject to the Freedom of Information (FOI) Act. We see FOI as a further opportunity for the company to be more open and accountable. In 2015/16 we received 1,538 requests for information at an average rate of 30 new requests each week. We have responded to 92 per cent of all requests within the statutory timescales. Minimum performance expectations are set at a benchmark of 85 per cent by the regulator (the Information Commissioner).

Open Data

The release of open data by organisations is increasingly becoming the norm and is an integral part of becoming more open and transparent. The railway industry as a whole continues to invest in making more, and better, data available to improve passenger journey planning. We have continued to work with technical developers throughout the year to build upon the 'real time' open data we currently provide from our operational train information. This data is used for mobile applications and websites and shows what is happening on the network at any given time.

We have more than 200 active users of our open data feeds. Feedback suggests that considerable appetite exists for ongoing releases of raw data including on historic performance and train cancellations. Developers want us to publish additional data feeds and we will be working with partners across the industry to explore more options.

Working with the industry

We have played a key role in the continued development of the industry approach towards transparency, providing leadership through the Rail Delivery Group (RDG) transparency sub-committee in particular. We actively benchmark our delivery against comparable organisations to drive continuous improvement and welcome challenge regarding our work. During the year we have hosted a number of events involving representatives across the sector, including challenge panels and stakeholder debates. These events are designed to promote closer working relationships, facilitate the sharing of ideas, as well as creating an environment where people can offer feedback and support.



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