





# Network Rail Limited's Annual Report and Accounts 2016

Presented to Parliament by  
The Secretary of State for Transport by Command of Her Majesty

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**Cover image:** Birmingham New Street station, steel facade by © Matt Eyre 2016 (Birmingham winner)

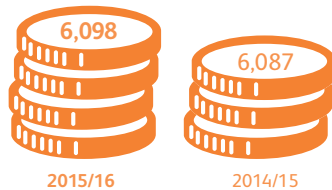
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# OUR YEAR IN NUMBERS

In this report we outline our performance during 2015/16, the second year of Control Period 5. Here is a snapshot of how we performed against a selection of key indicators.

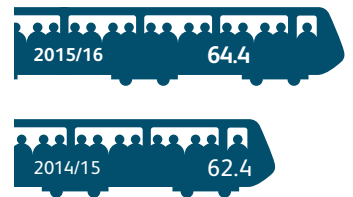
**£6,098m**

Revenue in the year  
(2014/15: £6,087m)



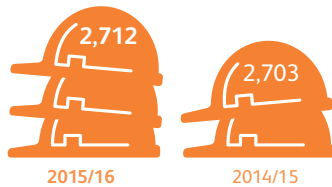
**64.4km**

Passenger km travelled  
(bn)



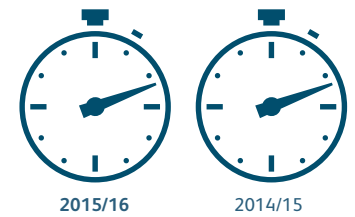
**£2,712m**

Operating costs\*  
(2014/15: £2,703m)



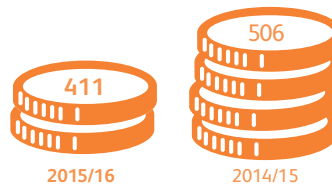
**89.1%**

Passenger trains on time  
(2014/15: 89.7 %)



**£411m**

Profit before tax†  
(2014/15: £506m)



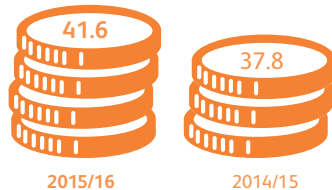
**17.8**

Freight moved  
(bn net tonne km)



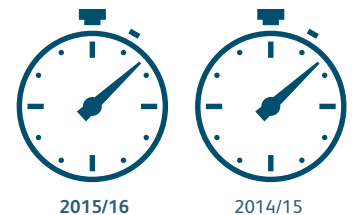
**£41.6bn**

Net debt  
(2014/15: £37.8bn)



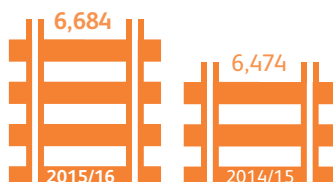
**94.3%**

Freight trains on time  
(2014/15: 94.5 %)



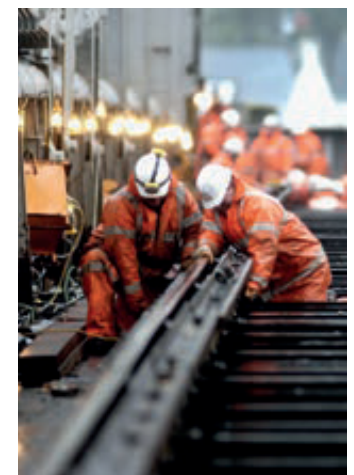
**£6,684m**

Capital expenditure  
(2014/15: £6,474m)



**140,021**

Number of workforce safety close calls made against our target of 80,000



\* Before depreciation and amortisation.

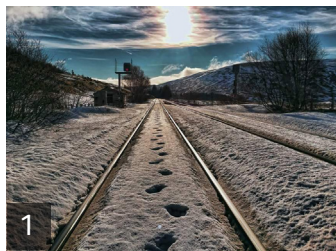
† We operate on a not-for-dividend basis, so our profits are reinvested in the railway.



# BUSINESS BRIEFINGS

## PHOTOGRAPHY COMPETITION WINNERS 2016

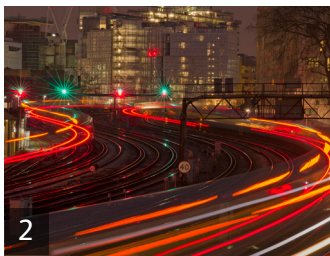
During this year's Business Briefings, a series of events where our chief executive Mark Carne addresses the business, staff were encouraged to submit entries for a photo competition based around the theme of 'delivering for our customers'. Employees were able to vote on six short-listed entries at each location to decide 11 regional winners. More than 1,500 Network Rail colleagues voted on the national final of the competition, choosing their favourite from the 11 regional finalists. The results are presented below.



1



© Paul Sheriff, 2016  
Track inspection, Inverness



2



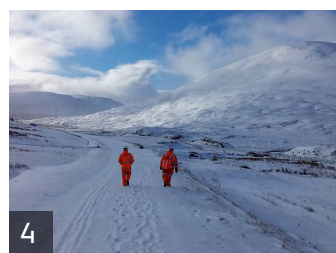
© Adrian Backshall, 2016  
London Victoria at night



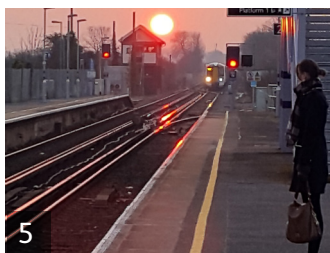
3



© John Wright, 2016  
Happy worker, happy customer



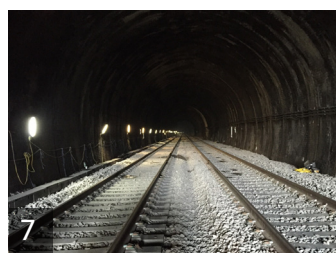
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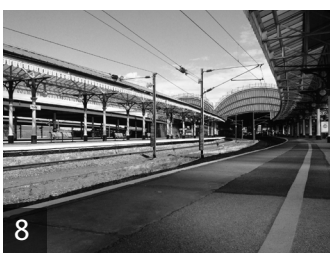
5



6



7



8



9



10



11

1. © Paul Sheriff, Stratford Winner, 2016
2. © Adrian Backshall, London Winner, 2016
3. © John Wright, Cardiff Winner, 2016
4. © Paul Sheriff, Glasgow Winner, 2016
5. © Mark Daley, Basingstoke Winner, 2016
6. © Matt Eyre, Birmingham Winner, 2016
7. © Victoria Bradley, Bristol Winner, 2016
8. © Christopher Inkley, York Winner, 2016
9. © John Curran, Manchester Winner, 2016
10. © Garry Ball, Derby Winner, 2016
11. © Matthew Gibbons, Milton Keynes Winner, 2016

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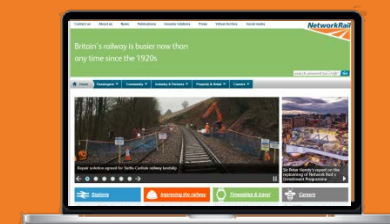
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**NETWORKRAIL.CO.UK**



## INTRODUCTION BY OUR CHAIR, SIR PETER HENDY, CBE

**Britain's railway is in many ways a great success. Over the last twenty years, passenger numbers have more than doubled. We have both the safest and the fastest growing rail industry in Europe. But the railway also faces significant challenges.**

### **Economic growth, jobs and housing**

Since arriving at Network Rail, I have been struck that, fundamentally, Britain's railway is a remarkable success story. Our railway is a national asset and key public service that is an enabler of economic growth, job creation and house building nationally. We have both the safest and the fastest growing rail industry in Europe. Over the last twenty years, passenger numbers have more than doubled and are continuing to grow. Every day, 4.5 million rail journeys are taken by people travelling to work, study or visit friends and family. Alongside passenger journeys, freight trains are delivering goods all over the country, taking 7.6 million lorries off the road each year.

But with this growth comes challenges. Decades of underinvestment, coupled with soaring passenger numbers, means that large parts of the railway network are full. We now have the most heavily congested railway in Europe. Our timetables are being squeezed to capacity, with no slack in the system for recovery from delays of any sort.

We have a Government more committed to funding infrastructure than at any time in the nearly 70 years since nationalisation. The Railway Upgrade Plan makes up over two-thirds of Network Rail's £40bn spending priorities for the five years to 2019 and represents the biggest sustained programme of rail modernisation since the Victorian era. We are also looking at how to modernise our systems with new technologies, to free up more capacity from existing rail infrastructure.

Inevitably, there will be some disruption while we deliver our upgrade work, but the end result will be a bigger and better railway for Britain.

### **Delivery**

Network Rail's focus must be to maintain the railway, manage day-to-day operations safely and reliably and deliver the Railway Upgrade Plan effectively, within budget and programme.

Network Rail's reclassification as a public body, with the Secretary of State for Transport as the sole member, brought to an end an era of readily available government-backed debt. This has been a seismic change for the entire industry, not just Network Rail. We now have a defined borrowing limit from the Government and we have to live within our means.

While the vast majority of our projects are being delivered on time and on budget, in the last year it became clear there were a small number of high value projects for which forecast cost estimates were significantly higher than originally assumed. In addition timescales were unrealistic, particularly for electrification and other projects where the scope of work was poorly defined at the outset.

As a result, we have comprehensively revised the way we manage enhancement programmes. As the Bowe review recommends, Network Rail and the Department for Transport have both agreed not to commit to projects until full scoping, development and costing has taken place.



## CHAIR'S INTRODUCTION CONTINUED

Upon my appointment as chair of Network Rail, the Secretary of State for Transport asked me to conduct a thorough review of which projects could be delivered in an affordable and timely way within the Control Period 5 (CP5) funding period up to 2019. I delivered my report in November 2015 and the majority of projects will still be delivered on time and on budget. Although some projects will be delivered after 2019, I am pleased to say none have been cancelled.

Part of the solution to the increased costs has been an offer by Network Rail, accepted by Government, to sell some of our assets. We have committed to raising £1.8bn by March 2019 and the Government has agreed to increase our borrowing limit by £700m to provide further funding for the enhancement programme.

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. She endorsed our direction of travel to a devolved business model and we support her recommendation of a northern route. Nicola highlighted – 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.

### Board and management

Our board is responsible to the Secretary of State for Transport for Network Rail's delivery, leadership and success. I am pleased to say that I inherited a vibrant, committed and well balanced board from the previous chair, Richard Parry-Jones, whom I thank.

During the year, Patrick Butcher, group finance director, and Paul Plummer, group strategy director, both moved on. We thank them and wish them both well. Jeremy Westlake joined the board as chief financial officer and Richard Brown and Rob Brighthouse joined us as non-executive directors, with Richard being appointed as the Secretary of State for Transport's nominee. Richard and Rob bring many years' experience in the rail industry to the board.

In the next year, two of our non-executive directors, Malcolm Brinded and Janis Kong, will retire. They have each made a huge contribution and will be greatly missed. We are in the course of seeking suitable replacements to maintain the breadth and balance of experience we need.

Day-to-day management is, of course, the responsibility of our chief executive, Mark Carne, Jeremy Westlake and the members of the executive. The board and I would like to record our appreciation of Mark's leadership and the executive and management team's sustained efforts throughout what, by any standards, has been a challenging and eventful year. We also give sincere thanks to our staff and contractors, who work day in and day out, often at unsocial hours and sometimes in extreme weather and remote locations, to deliver Britain's growing railway.

Next year Network Rail has to continue to improve operational performance and safety, deliver the

enhancement programme and progress devolution while better serving our customers and living within our budget. The board and I are looking forward to supporting this work and championing growth on Britain's railways as good news that we should be proud of, celebrate and share.



**Sir Peter Hendy, CBE**  
Chair  
30 June 2016



## A MESSAGE FROM OUR CHIEF EXECUTIVE, MARK CARNE

**This was a year of exceptional challenges and change for the railway industry. I am determined that the progress we have made in making Network Rail a more efficient and customer focused company will continue and accelerate.**

### Safety

Business performance and safety performance go hand-in-hand. I am pleased to report that we continue to be the safest major mixed use railway in Europe and one of the safest in the world. Workforce safety also continued to improve, with no fatalities for the first time in the railway's history and the serious lost time injury rate down 30 percent on the previous year.

This safety record has not happened by chance. It is the result of our focus on all aspects of safety, in everything that we and our partners, do. Our aim remains the same – everyone home safe every day.

### Performance

It has been a tough year for the rail industry – the year of reviews – but we can also look back at the last 12 months and take pride in many achievements. We have carried more passengers than ever before, we have increased the reliability of our infrastructure assets, we have successfully delivered our biggest ever programme of bank holiday works and we are investing £100m every single week on improvements for passengers as part of our Railway Upgrade Plan.

Train operating performance continued to disappoint in some areas. Although the number of primary delays caused by infrastructure failures has gone down, secondary delays are increasing due to rising congestion across the network. There have also been weather incidents that have caused extreme damage to our infrastructure, hindering the ability to run trains.

We have not met our targets this year for train punctuality and reliability nor for the number of trains that are cancelled or severely late. It is therefore no surprise that passenger satisfaction was also below our target. We continue to work with train operating companies to improve our performance and deliver a more punctual, more reliable railway.

### Winter weather

The winter of 2015/16 saw record rainfall and a succession of severe storms hit much of the country. The impact on our operations was significant.

Some of our infrastructure is up to 190 years old. Our engineers faced landslips, bridge failures, erosion of foundations, floods and wind damage. During the year, major sections of five lines were closed for significant periods as we, and our partners, worked around the clock to repair the damage, often in the most difficult of conditions.

We performed well in this crisis, but we need to improve the 'future proofing' of the nation's railway assets. Maintaining the integrity of the railways and building climate change resilience into all our enhancements is now an absolute focus in our planning and maintenance programmes.

### Our biggest ever investment programme

Although more trains are running than ever before, demand is outstripping supply. Large parts of the network are full and we are facing increasing problems with delays and congestion. This is why we are delivering our biggest ever investment programme, the Railway Upgrade Plan, a portfolio of enhancement projects that is greater in scale and complexity than any undertaken by the rail industry in the modern era.

In 2015 we completed the £1bn reconfiguration at Reading, a year ahead of schedule and under budget. We also opened the redeveloped Birmingham New Street and Manchester Victoria stations and opened the Borders railway in Scotland, the first new railway to be built north of London in 100 years.

We continue to deliver complex, major work including Thameslink, Crossrail and the Great Western upgrade.

As Sir Peter has already described, not all the big projects have gone so well. Over half of our major enhancement projects in Control Period 5 (CP5) were at a very early stage of

## CHIEF EXECUTIVE'S REVIEW CONTINUED

development when they were committed to – with correspondingly uncertain cost estimates and delivery timescales. Under our old financial structure we could have funded the extra costs through borrowing, subject to regulatory permission. However, the reclassification of Network Rail as a public body closed that funding route. It is clear that this ineffective capital discipline led to, at times, a lack of proper upfront planning.

In January 2015, recognising these difficulties, we established a special board committee, the major projects delivery committee, to review the way we develop and deliver projects. The result of its work – the Enhancement Improvement Programme (EIP) – will significantly strengthen the rail industry's ability to successfully deliver major projects going forward.

To help meet the shortfall, we are developing plans to generate additional funding mostly through the sale of property assets where our continued ownership is not essential to running the railway. The sale proceeds will be reinvested directly into the railway delivering new passenger benefits.

### The future of Network Rail: customers, devolution, growth

Nicola Shaw's review into the future structure and financing of Network Rail reported in March 2016. Nicola recommended that the rail network should be held as a national asset and a key public service. Her core 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'. But the report highlighted that our customers want us to move faster.

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 then hold us to account. From 2016/17 we will have route-based performance scorecards, devised with our train operating company customers to reflect what is really important to them. And we have committed to having separate regulatory settlements for each route by the start of Control Period 6 in 2019.

Route managing directors will lead the changes needed to allow customers to better hold us all to account. This devolution needs to happen within the context of a national framework and standards – the railway cannot be broken up into separate autonomous areas given the number of passengers as well as freight traffic that cross different boundaries, and we need common technical and safety standards.

The other challenge for our evolving Route business units will be to find new sources of investment. In CP5, almost all infrastructure upgrades are being financed by the taxpayer. We cannot just rely on central and local Government being able to continue to provide the capital investment needed.

We need increasingly to source funding for improvements from those people, authorities and businesses that will directly benefit from better railways. As well as building new rail links, we must modernise our systems with digital train control technology, which will allow trains to run closer together and more reliably, freeing up more capacity from our existing rail infrastructure.

We need to take action now to meet the challenges, moving ahead of the curve and not behind it. We cannot afford for our railways to become a brake on economic progress, rather than the arteries of success that they should be. A digital railway is our future and funding it must be a priority.

### Conclusion

I am immensely proud of the staff of Network Rail as well as our partners and contractors, who at times have shown extraordinary dedication and commitment in very testing conditions. I am particularly proud of our progress in becoming a more diverse company: 31 percent of our graduate recruits this year are from black and minority ethnic groups, and 27 percent and 24 percent of our board and our executive respectively are women. In all my experience, diversity in teams leads to a wider variety of perspectives and challenge, and better performance. We are determined to continue to lead the rail industry in this regard.

A number of new members joined our executive during the year: Graham Hopkins joined from Rolls-Royce as group director, Safety, Technology and Engineering; Jo Kaye was an internal appointment to the new position of director of Network Strategy and Capacity Planning; Phil Verster assumed the role of managing director, Scotland; Susan Cooklin is leading the newly created Route Services Directorate; and, most recently, Jeremy Westlake joined as chief financial officer. We have also announced the appointment of David Waboso as managing director, Digital Railway, to replace Jerry England who retires later this year. My thanks go to Jerry, Paul Plummer, former group strategy director, and Patrick Butcher, former group finance director, for their support over the years.

There is a lot to do. We will embed the changes required, including devolution to the routes. At the same time we will maintain our relentless focus on running a safe railway network for our customers, driving better operational performance and lower costs, while carrying out the largest ever investment programme in our railway's history. All eyes are on us to deliver our full CP5 enhancement commitments by 2019, on time and on budget.



**Mark Carne**  
Chief executive  
30 June 2016



## ABOUT US

**We own and operate the railway infrastructure in England, Wales and Scotland on behalf of the nation. Here we look at what we do, how we are governed, how we are funded and our strategy for delivering a better railway for a better Britain.**

### What we do

Network Rail owns and operates most of Britain's railway infrastructure, including tracks, signals, tunnels, bridges, viaducts and level crossings. We also manage rail timetabling and 18 of the largest stations in England, Scotland and Wales.

We operate on a not-for-dividend basis, which means that we do not pay dividends to shareholders. Instead, we reinvest any profits we make into improving the railway. Our aim is a safe, reliable and efficient railway for passenger and freight trains.

### How we are governed and managed

As a public sector arm's length body, Network Rail retains the commercial and operational freedom to manage Britain's railway infrastructure within regulatory and control frameworks.

Under our Framework Agreement with the Department for Transport, our board of directors is responsible to the Secretary of State for Transport, and the chair aims to ensure our policies and actions support the wider strategic policies of the Secretary of State and the Scottish Ministers. We are subject to independent regulation by the Office of Rail and Road (ORR). A diagram showing the governance framework within which we operate can be found on page 51.

→ Network Rail's board of directors provides the primary internal governance. For details of the directors, including their biographies, see pages 45-48.

The board has delegated some of its powers to five board committees. The executive, comprising the chief executive, the chief financial officer and ten senior executives, manages the day-to-day running of Network Rail. The executive committee meets on a regular basis to consider strategic and operational matters. Its responsibilities include executing the objectives and strategy approved by the board, providing leadership on safety, health and environment matters and establishing, monitoring and co-ordination of internal controls and risk management throughout the business.

→ For details of the five board committees, see pages 57-83.

In early 2015 the board established two temporary committees – the critical infrastructure projects delivery committee and the major projects delivery committee. The first of these completed its task in December 2015, while the major projects delivery committee continues to meet on a quarterly basis chaired by a member of the executive.

Our board is accountable to others in a number of ways:

- **Financial** – The ORR determines that we spend efficiently the income we receive from the Government and the outputs we must deliver during each five-year control period. Our chief executive Mark Carne is our accounting officer and so is personally accountable to Parliament for Network Rail's stewardship of the public funds it receives
- **Regulatory** – We are subject to the ORR's regulation for our health and safety performance and for management of the network consistent with our network licence.

→ The board's corporate governance report is shown on pages 49-56.

### How we are organised and operate

Responsibility for day-to-day operation of the railway is devolved to eight Routes. This enables operational control at a local level and close alignment with the companies that run passenger and freight services on our infrastructure.

The eight Routes are the operational heart of Network Rail. During 2015/16, we clarified and refined our approach to ensure that our central functions support the Routes as effectively as possible. To achieve this, we have created three Route Support directorates:

- Route Services Directorate, which includes Group Business Services, National Supply Chain and Network Rail Consulting
- Infrastructure Projects
- Digital Railway, which is leading an integrated strategy for the technological transformation of the railway.



## ABOUT US CONTINUED

In addition, at the corporate centre, Central Support acts as the system operator through Network Strategy and Capacity Planning, and as the technical authority, through a Safety, Technical and Engineering Directorate.

More information on the activities of the individual Routes during 2015/16 can be found on pages 14-23, on Infrastructure Projects (pages 25-26), Digital Railway (page 27), and Property (pages 29-30).

### Our business model

We are a public sector company that operates as a regulated monopoly. Our income is a mix of direct grants from the UK and Scottish Governments, charges levied on train operators that use our network, and income, mainly from our commercial property estate.

The Governments specify what they need from Britain's railway and how much they can afford to contribute. Our independent regulator, the ORR, sets a framework that specifies the level of fixed income we are allowed to charge, as well as the prices for recovering the costs of wear and tear to our infrastructure caused by the trains using it.

The framework also includes flexible funding mechanisms that allow the level of enhancements to the railway to be varied over time. The charges we are allowed to pass on to train operators are determined so that they are fair and allow us to maintain a safe and reliable network, and deliver good customer service.

### How our revenue is determined

Network Rail is funded by Government in five-year blocks called control periods. This annual report covers the second year of Control Period 5 (2014 to 2019).

The ORR assesses the efficient level of expenditure that we need to run our business and deliver the regulated outputs.

It determines how much revenue we need, including an allowed return on our regulatory asset base. This takes into account other income that we receive (such as commercial income from property). Our regulatory agreements then allow us to determine the amount we are allowed to charge train operators for use of our network.

The ORR calculates our revenue based on:

- **Cost of service** – The ORR considers what costs an efficiently run company would incur to operate and maintain our network for each year of each control period. They vary and can include, for example, costs relating to employees, office rental, information technology systems and taxes. The regulator determines what is considered an efficient cost and this may be different to the actual costs we incur.
- **Expenditure on renewals and enhancements** – The regulator assesses the capital expenditure on renewals and enhancements that we need to undertake in the control period. This expenditure is added to the regulatory asset base in the year in which it is incurred.
- **Allowed return** – The ORR calculates the allowed return on the regulatory asset base and includes this in its determination of charges to rail users. This therefore covers, among other things, the cost of financing our capital expenditure programme.

- **Performance against incentives** – Our regulatory framework includes incentives that are designed to encourage specific actions. Failing to achieve certain minimum targets may lead to a reduction in our allowed revenue. And vice versa if we exceed targets.

The sources of our income are:

70%

Network grants from the Department for Transport and Transport Scotland

70 percent of our income for CP5 is in the form of network grants from government

25%

Track access income from train operating companies and freight operating companies

11 percent of our income comes from fixed track access charges to operators, leaving 14 percent coming from variable charges to train operators.

Our income from operators can be increased for out-performance or reduced by compensation paid to them for under-performance.

5%

Income from commercial property

Five percent of our income comes from our national property and station retail portfolio of over 8,200 properties

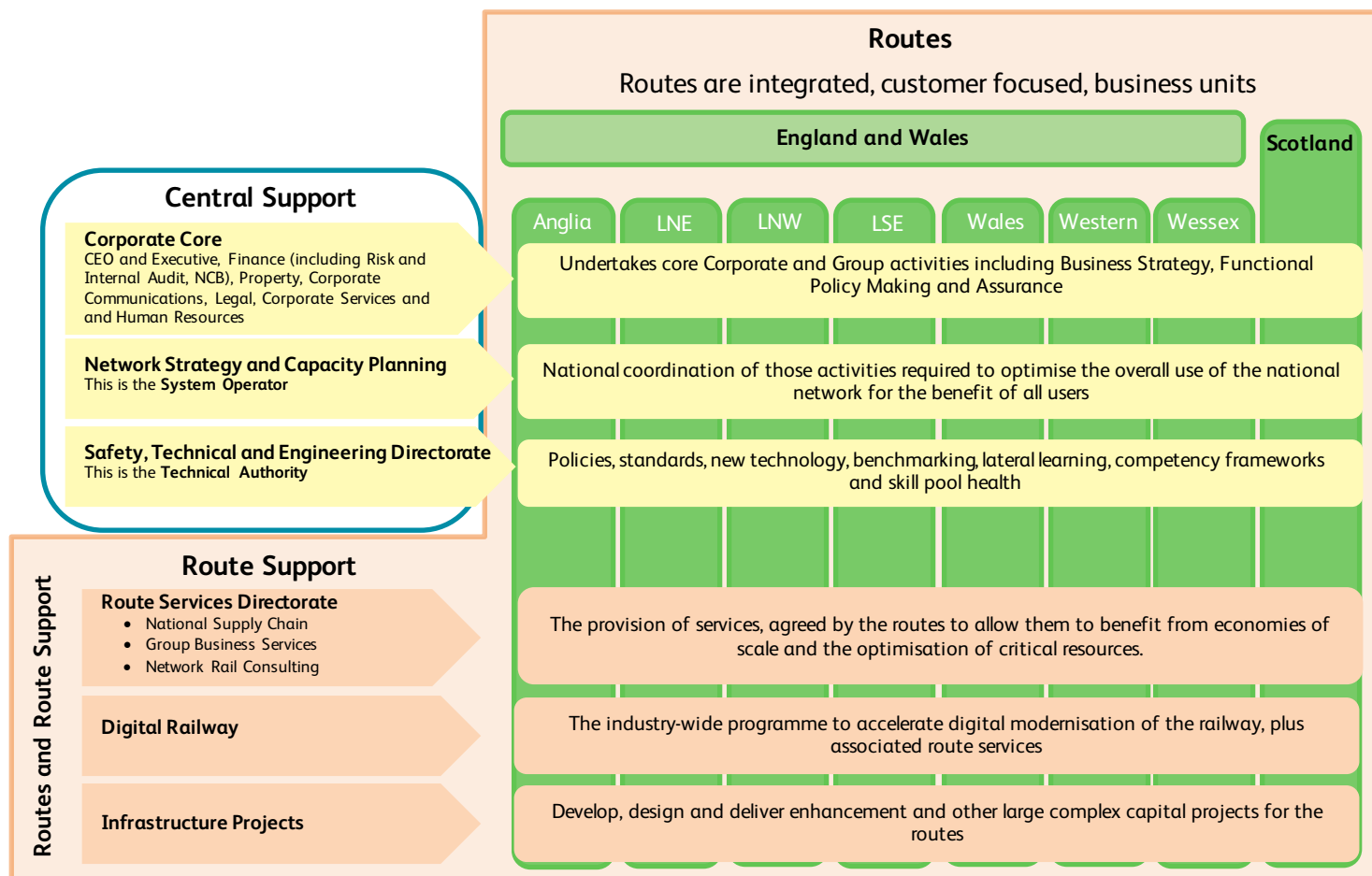
### Our strategy

#### Customer focused

We are devolving power to route-based business units to enable us to become a more responsive, customer focused and efficient organisation. Routes will be empowered to deliver performance that is tailored to the needs of local customers, and also make faster decisions on behalf of their customers, funders and stakeholders. For the first time we now have route-based scorecards, devised following consultation with our train operating company customers.

The route-based business units will continue to operate within a national framework. There is a critical need to ensure that capacity is planned for the overall benefit of customers and funders across the whole network. This responsibility sits within Network Rail's System Operator function. The railway also contains a number of complex inter-related systems that require nationally driven research and development, inter-operable infrastructure and safety standards or policy guidance. This will be provided by a small highly professional centre able to support and guide the routes.

## ABOUT US CONTINUED



### Matrix organisational structure

#### Cost competitive

Our route-based businesses will need to innovate and find new ways of working, while also benchmarking to help share best practice. Within the national framework, our eight route-based business units will collaborate to maximise the benefits of economies of scale that can come from aggregating services. During the last year we created the Route Services directorate to drive down costs and improve efficiency. Route Services must demonstrate that its services are cost competitive in the open market, and must also prove to the routes that it can provide services more cost effectively than the routes could achieve locally. This competitive environment encourages the 'better every day' mindset that we are embedding in our business as we seek to find new, innovative ways of delivering more efficiently.

Network Rail Consulting provides technical and operational expertise to its customers in Australia, New Zealand, North America and the Middle East. Since its launch in 2012 that business has been growing, and in 2015/16 Network Rail Consulting was profitable and met its targets.

#### Commercial

In the current control period 99 percent of funding for enhancements was provided by the taxpayer in one form or another. In the future, we need to find ways of getting the businesses and communities that directly benefit from improved railways to help pay for them. We will have to explore commercial deals with developers, house builders and regional authorities. New, direct sources of funding will bring performance benefits because we will have partners with a real incentive to help us deliver. This is a fundamental change and will develop over time.

We are also taking a more commercial approach in our decision to reduce our portfolio of assets and divest significant elements of our property estate so that we can reinvest the proceeds in passenger benefits.

#### Culture

Key to our success in the future is creating a caring culture that believes that safety and performance go hand in hand. We are making progress but we have a long way to go. Our caring culture must extend to the way we interact with our lineside neighbours, the way we think about our use of resources and our impact on the environment. We must also become a more diverse culture, not just in gender and ethnicity but in the way we value and respect ideas. A diverse and inclusive culture, married to one with the relentless ambition to be better every day will be one where everyone feels at the limit of their own potential.

#### Capacity

The railway's biggest challenge is capacity. We are forecasting that the number of people wanting to travel on our network will double in the next 25 years. Much of our network is already full and we need to look at ways of meeting this demand affordably. The speed with which we can implement digital train control will be a large part of the answer. The technological transformation of the railway will increase capacity and connectivity, allow trains to run faster, more reliably, more safely and with a smaller environmental footprint. Delivering a Digital Railway will be a change programme unlike any other the railway has ever seen. We have a key role to play in making sure that this industry change happens.

# HOW WE PERFORMED IN 2015/16

Performance measure	Bonus weighting	Full-year Actuals		
Safety		Worse Than Target	Target	Better Than Target
Workforce Safety – Lost Time Injury Frequency Rate (LTIFR)	5.0 %	0.540	0.511	0.483
Workforce Safety – close calls	3.0 %	70,000	80,000	90,000
Workforce Safety – close calls closed within 28 days (%)	2.0 %	40 %	50 %	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		Worse Than Target	Target	Better Than Target
Public Performance Measure (PPM)	12.0 %	89.1 %	90.0 %	91.0 %
Cancellation and Significant Lateness (CaSL)	6.0 %	3.1 %	2.8 %	2.4 %
Freight Delivery Metric (FDM)	2.0 %	92.5 %	94.3 %	95.0 %
Financial		Worse Than Target	Target	Better Than Target
Financial Performance Measure (FPM) – Total Efficiency Generated (£m) excluding Enhancements	15.0 %	-£200m	0	+£200m
Financial Performance Measure - Enhancements (£m)	5.0 %	-£100m	0	+ £100m
Investment		Worse Than Target	Target	Better Than Target
Top Ten Infrastructure Projects Renewals and Enhancement Milestones	5.0 %	6	8	10
All Delivery Plan Enhancement Milestones (%)	5.0 %	60 %	80 %	100 %
Asset Management		Worse than target	Target	Better than target
Composite Reliability Index (CRI)	7.5 %	7.5 %	8.4 %	9.3 %
Renewals (Seven Key Volumes)	7.5 %	90 %	100 %	110 %
Satisfaction		Worse Than Target	Target	Better Than Target
Customer – Survey Results	5.0 %	3.05	3.32	3.49
Passenger – Survey Results	5.0 %	81.0 %	83.3 %	86.0 %
Lineside Neighbours - Survey results of NR favourability amongst Lineside Neighbours who experience work	5.0 %	51.0 %	53.0 %	55.0 %

● Below 'Worse Than Target' 
 ● Between 'Worse Than Target' and 'Target' 
 ● Between 'Target' and 'Better Than Target' 
 ● Above 'Better Than Target'

## Safety

### Workforce Safety

**Lost Time Injury Frequency Rate (LTIFR):** Means time lost to injuries and fatalities among Network Rail staff and contractors employed by Network Rail per 100,000 hours worked. A lower figure represents a better performance against target.

We exceeded our ten percent 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 a 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 percent of these calls were closed out within 28 days, exceeding the target of 50 percent but not meeting the scorecard maximum of 60 percent.

**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 the target reduction in the passenger component of train accident risk – where Network Rail is the risk controller – was a further ten percent. We exceeded our target and the stretch target. This measure is particularly affected by wet and windy weather that causes incidents such as trees on the line, landslips and flooding.

## OUR PERFORMANCE CONTINUED

**Level Crossing Risk Reduction (LCRIM):** *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 ten minutes of scheduled arrival time, and for Regional and London & South East within five minutes of it. A higher figure represents a better performance.*

At the end of 2015/16 PPM stood at 89.1 percent, below our target of 90 percent.

**Cancellation and Significant Lateness (CaSL):** *Means the measure of how many passenger trains are cancelled or are significantly late (more than 29 minutes late). Our scorecard target is 2.8 percent; a lower figure means better performance against target.*

At the end of 2015/16 CaSL stood at 3.1 percent, 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 percent but did not meet our internal target for the year of 94.5 percent.

### Financial Performance Measure

**Total Efficiency Generated (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 £149m 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 percent of the difference between actual costs and the baseline.

**Enhancements:** *This measures our financial performance in delivering enhancement programmes by comparing expenditure to the 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 £210m 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:** *Means the milestones at stages three and six of the eight-stage project process. This process is used to manage and govern all our investment projects.*

We exceeded our target of achieving 80 percent of our Enhancement Milestones. The majority of delays to milestones were during project development rather than project delivery and therefore did not affect project completion dates or rail services. The only project completion milestone that was delayed was a project rebaselined as part of the Hendy review.

### Asset Management

**Composite Reliability Index:** *This 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 a better performance.*

We achieved 14.6 percent, exceeding our target of 8.4 percent and our stretch target of 9.3 percent.

**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 we engage with our key customers, principally the passenger and freight operating companies in each of our eight Routes. It is measured through the third party 'customer satisfaction survey'. A higher figure represents a better performance.*

At 3.05, 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, which provides a network-wide picture of passenger satisfaction with rail travel. The survey runs twice a year. The year-end result is the average of the two surveys. A higher percentage represents a better performance.*

We did not meet our target of 83.3 percent, but exceeded the scorecard minimum of 81 percent.

**Lineside Neighbour Favourability:** *This measures Network Rail's reputation among lineside neighbours who have experienced work by Network Rail near their home or place of work in the past 12 months. We ask them "how favourable/unfavourable are you towards Network Rail?" A higher percentage represents a better performance.*

At 51.0 percent, lineside neighbour favourability did not meet our target of 53 percent or our scorecard minimum of 52 percent.





## CHIEF FINANCIAL OFFICER'S REVIEW OF THE YEAR

**Our record expenditure on the Railway Upgrade Plan continues with every pound of profit reinvested. Driving efficiency and finding new ways to finance this essential work are paramount to deliver a better, affordable railway.**

While working to meet challenging targets, we have again lowered our charges to customers while delivering enhancements and enabling more passenger journeys than ever before.

This control period (CP5) runs from April 2014 to March 2019 and was designed to be financially more challenging than Network Rail's previous two five-year regulatory settlements. Although progress has been made, it has proven difficult to keep pace with the targets set out in the Office of Rail and Road's (ORR) determination of charges and outputs for this control period.

### Reduced profits as planned

Recognising that part of building a sustainable railway is making it more affordable for taxpayers, passengers and freight users, Network Rail's charges cost less in real terms than at any point in the last ten years.

Lower profitability year on year was built into the regulatory settlement. Profit before tax has been planned to decline over each year of CP5 as a result of increased depreciation and financing costs associated with the enhancement programme. Only a small net surplus was expected across the five-year period, given that expenditure assumptions were achieved.

In this context it was entirely in line with expectations that profit before tax fell to £411m, compared to £506m last year. The largest change was the net £130m increase in depreciation and amortisation fuelled by the high levels of investment into the railway network. We expect a decline in profit before tax in each of the remaining three years of this control period.

### Every pound of cash generated through profits is reinvested in the railway

Network Rail is a not-for-dividend company and so reinvests every pound of net cash generated from operating activities in

improving the railway. The investment programme consumed all £2.2bn net cash generated from operations and a further £4.4bn drawn down from the Department for Transport (DfT) loan facility.

### Hendy review

Over the five years of this control period we expect to invest £34bn in the railway network. This is necessary to help meet the demands of a railway that is experiencing the fastest sustained period of growth since the Victorian era. The Hendy review, published in autumn 2015, created a robust baseline for enhancement expenditure and provided an approach to delivering the CP5 investment programme.

Network Rail continues to deliver significant improvements to the railway network investing £3.5bn in enhancements (2014/15: £3.4bn), beating last year's record enhancements delivery, whilst expenditure on renewals also increased to £3.1bn (2014/15: £2.95bn).

Major projects include Great Western electrification, Thameslink Programme, work on our network for Crossrail, the North West Electrification, the Strategic Freight Network and, in Scotland, improving the network between Edinburgh and Glasgow.

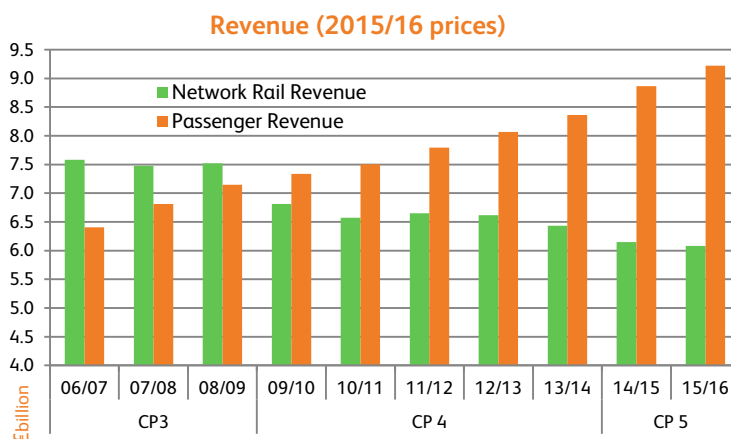
The Hendy review proposed how an additional £1.8bn cash flow could be generated to provide additional cash flows, over and above the DfT loan facility, from disposing of assets and encouraging alternative funding strategies. In addition, the DfT has agreed a further £700m loan facility. Together, these plans will enable the CP5 investment programme, as set out in the Hendy review, to be delivered.

# CHIEF FINANCIAL OFFICER'S REVIEW CONTINUED

## Financial review of the year

This review will focus on the financial performance achieved by Network Rail in 2015/16, and in particular on:

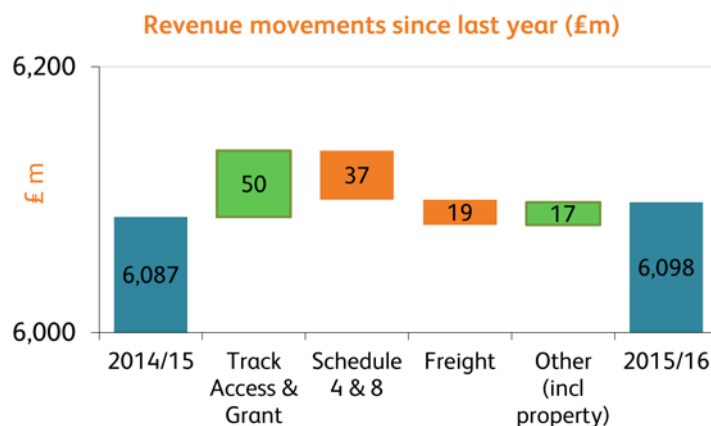
- Profitability – an analysis of revenue, operating costs, financing costs and tax in the year.
- Investment in the railway network – the progress in delivering projects that improve the network's capabilities and reliability, and help to meet the growing demands on the railway.
- Financial framework – demonstrating a robust and stable financial framework, to deliver the performance and investment required to drive the railway forward.



## Revenue

This was the second year of CP5. As planned, our charges rose marginally in cash prices in the year. After allowing for general inflation, charges were the lowest in real terms for the last 10 years, despite continued increases in passenger and freight traffic.

This year's turnover was £6,098m (2014/15: £6,087m). As the graph above illustrates, Network Rail's revenue over the last ten years has continued year on year to decrease in real terms. This is as a result of passing on the benefits of increased efficiency and stability through lower charges. Over the same period Great Britain's passenger revenue, 'fare box', has increased and now stands at over £9bn. Network Rail took a further three percent less of the overall fare box last year (over 50 percent less than ten years ago).



## Performance and access regimes

Passenger and freight track access and network grants increased by £50m in line with the regulatory determination. However, not all Network Rail's income is fixed by the regulatory regime. Network Rail is at risk of reductions in receipts from train operators for worse than expected train performance.

When performance drops below the benchmarks, determined by the ORR, Network Rail pays compensation to operators. Delays include those for planned engineering work (required to maintain, renew and deliver record levels of enhancements to the network). There are also unplanned delays due to a variety of operational factors, such as the devastating effects of the winter storms, with incidents this year at Lamington on the West Coast main line, the sea wall between Dover and Folkestone, as well other severe weather events. As a result compensation paid to train operators increased by £37m. The total cost of severe weather incidents in the year was over £130m.

Network Rail also generated an additional £18m (eight percent) of property revenue. The major drivers of property rental growth were from increased retail sales at our managed stations and rental income growth from our commercial estate portfolio.

Freight income fell by £19m due to lower volumes of traffic, particularly in coal haulage.

## Efficiency and effectiveness

As a business we continue to focus hard on cost efficiency and effectiveness, particularly to address the challenges set out in the regulatory settlement. As well as record levels of enhancement activity, expenditure on renewals also continues at very high rates to improve long term asset sustainability and, ultimately, performance of the network. Working on an increasingly congested railway with shorter possession intervals to undertake this essential work raises the bar still further to deliver the desired level of efficiency, and this has been compounded by numerous severe weather incidents.

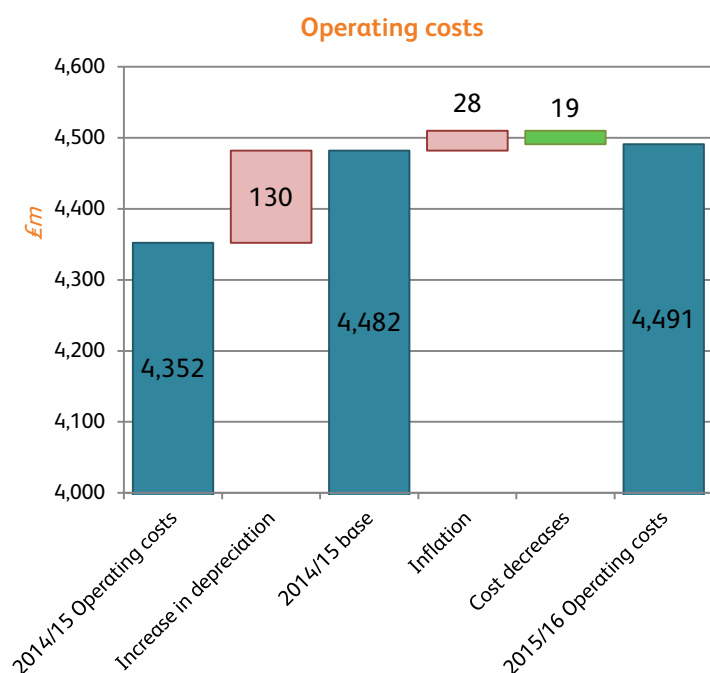
We see encouraging trends in overall asset reliability but this has yet to translate to overall improvements in network performance and the cost effectiveness of renewals activity is proving challenging. Network Rail continues to deploy new technologies to improve productivity and is supplementing this with a lean value improvement programme across all aspects of its business to save money. All areas of centrally managed expenditure are also being scrutinised to deliver cost reductions.

➔ For further details see Financial performance measure on page 9.

## Operating costs

Net operating costs for this year increased by £139m to £4,491m (2014/15: £4,352m) this included a net £130m rise in depreciation and amortisation reflecting the level of investment made in the network over the last two years. In the year operating costs before depreciation and amortisation increased by £9m.

# CHIEF FINANCIAL OFFICER'S REVIEW CONTINUED



## Employee costs

Employee costs were £10m higher than last year. Staff costs increased in the year rising from £1,919m in 2014/15 to £1,929m in 2015/16.

The average number of employees rose in the year to 37,481 (2014/15: 35,457).

The average salary received in the year remained unchanged at £44,800 and although the increases in headcount have increased total employee costs these have largely been offset by the one-off reduction in pension costs (£124m). This is due to pension scheme changes introduced in conjunction with the latest actuarial valuations which help to offset increased National Insurance Contributions arising from State Pension reforms in April 2016. Included in these charges, for our largest scheme, was a restriction that limited the way that above-inflation pay increases count towards defined benefit pension obligations. Network Rail is party to two shared-cost defined benefit pension schemes. Costs are shared with pension scheme members on a 60:40 basis. As a result of these changes Network Rail's accounting deficit at 31 March 2016 reduced to £1,420m (2015: £1,505m), although the latest actuarial valuations for both schemes indicated the schemes were near 100 percent fully funded on an ongoing basis at their respective valuation dates.

## Financing costs

Finance costs decreased in the year from £1,338m last year to £1,322m. This decrease was due to maturing interest rate hedges being replaced by lower rate borrowing (£163m) partially offset by increased costs through higher debt levels (£147m).

## Tax

Network Rail has significant tax losses brought forward, and as it continues to invest heavily in the railway network it pays relatively small amounts of corporation tax. Last year Network Rail has, for accounting purposes, derecognised its deferred tax asset in respect of trading losses carried forward of £864m, because it was not possible to predict when these losses would be utilised to offset corporation tax.

This year the deferred tax provision has reduced due to changes in corporation tax rates, and changes in practices with regard to claiming capital allowances in light of proposed changes to tax legislation. As a result a tax credit of £306m (charge of £882m 2014/15) is recorded in the income statement this year and the deferred tax liability has reduced to £2,808m (2014/15: £3,230m).

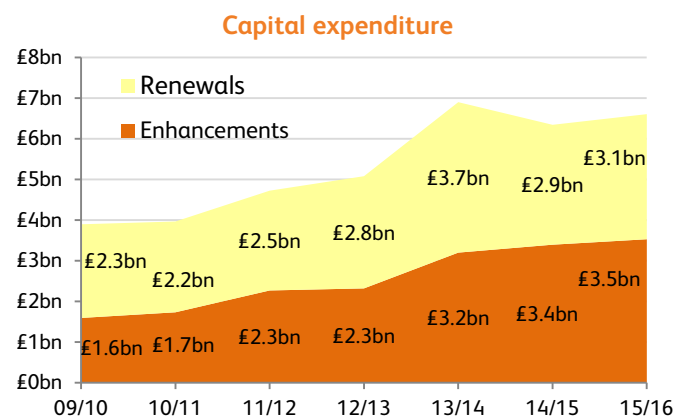
## Investment in the railway network

The investment programme delivered in the year has been set against the backdrop of a major review of the cost and deliverability of the enhancement programme, the Hendy review. This review which was published in autumn 2015 set a more robust baseline for the delivery of the CP5 enhancements programme. This has been adopted by ORR as the regulatory base line. This notably included significantly increased cost forecasts with regard to the Great Western Electrification Programme (GWEP) which is commencing its delivery stage and remains in line with its revised forecast.

We invested £6,684m in the network in the year (2014/15: £6,474m), continuing the high levels of delivery seen over the last three years.

We spent £3,527m, a record in terms of work delivered, (2014/15: £3,393m) on enhancements increasing the capacity of the network.

We have also invested £3,077m (2014/15: £2,949m), renewing both our railway assets (such as track, signalling and civils) and in information management and asset information technologies. Although this year we achieved our planned expenditure level for renewals, the actual level of efficiencies and work performed was short of target due to a variety of factors including the heavily congested network and adverse weather conditions which create additional financial pressure.



## Financial framework

### The railway network

The railway network that we own, and have a licence to operate, is included in the accounts at a value that represents what a third-party purchaser would pay for it, and this valuation underpins our financial framework.

The basis of this valuation is set out in note 12 (page 109) to the accounts and comes from an assessment of the cash flows that are forecast to arise from the asset. The starting point for this valuation is the regulatory asset base (RAB). Subject to certain criteria established by the ORR, each year capital expenditure is added to the RAB and amortisation is deducted.

# CHIEF FINANCIAL OFFICER'S REVIEW CONTINUED

The ORR can make deductions from the RAB in the event that we do not achieve our required outputs, for example not meeting required train performance or breaching a licence condition, or where the ORR wishes to make a retrospective funding adjustment.

As the valuation of the railway network is based on projected cash flows, we have considered the potential for under performance in CP5, both in terms of the financial settlement and the required outputs.

Delivery of efficiencies has been challenging, following the significant cost reductions achieved in CP3 and CP4. Work delivered this year has been at generally higher cost than assumed in the previous business plan, in part due to constrained access, supply chain cost pressures, and the impact of severe weather incidents. For further details see Financial performance measure on page 9.

At the same time as the Hendy review we revisited a number of planning assumptions for operations, maintenance and renewals for the remainder of the control period. The impact of our rebaselined plan, through the regulator's assessment of its efficiency, has been incorporated into the revaluation of the railway network.

As a result the valuation of the railway network was adjusted downwards by £373m (2014/15: £488m).

## Borrowing

Since becoming a public sector body in September 2014 Network Rail borrows directly from government and no longer issues debt on capital markets. This applies to both the borrowing required for new investment and refinancing of existing debt.

The regulatory settlement provides strong security for future income and the Department for Transport (DfT) loan agreement provides a robust platform to refinance and borrow to invest in the railway network.

Network Rail plans to borrow significantly over the remainder of the control period to finance the investment programme. We plan to draw down a further £11.2bn from the agreed DfT loan facility to finance this investment, and a further £5.7bn to refinance maturing debt. As a result, by March 2019 the net debt will increase to around £52bn.

	2015/16	2014/15
	£bn	£bn
Borrowing to invest	4.4	3.7
Borrowing to refinance	3.1	2.7
DfT loan drawdown	7.5	6.4

As well as the DfT loan facility, we are exploring the potential to sell non-core property assets, and find other ways to attract commercial partners in order to deliver more capital investment that will help increase the capacity of the railway network.

During the year ended 31 March 2016 Network Rail borrowed £7.5bn from the DfT. Part of this new debt was used to pay back existing bonds whilst the remainder was used to invest in the railway infrastructure. As a result net debt rose from £37.8bn to £41.6bn.

## Managing interest and foreign exchange risk

For CP5 Network Rail set out to manage its interest and

foreign exchange risk by using derivative financial instruments (hedges). This was particularly important for Network Rail under its regulatory settlement because, for example, a one percent movement in interest rates would cause at least £400m of fluctuation in interest costs. Since reclassification as a public sector body and the gradual introduction of the revised government borrowing arrangements described earlier no further hedges have been taken out and pre-existing hedges are being utilised and retired. The group measures its historical hedges for accounting purposes at their market value as required by International Financial Reporting Standards. A market value is determined by comparing the original value of the hedges against the current market rate.

We do not intend to trade these hedges, but use them to minimise our financial risks. As long as the hedges are economically effective (i.e. they offset changes in the cost of existing and/or future loans), their value at any point in time should not be a key focus when assessing the group's performance.

By qualifying to use hedge accounting rules we match gains or losses in the market value of hedges to fluctuations in the hedged item (i.e. the loans). These losses on debt and derivatives valuations taken through the income statement were £65m (2014/15: £41m). In addition £232m (2014/15: £982m) of reduction in the value of interest rate swaps, used to control the cost of future borrowings, was posted to the hedge reserve as statistically effective cash flow hedges.

## Post balance sheet events

Except as disclosed above, there have not been any significant post balance sheet events, whether adjusting or non-adjusting. On 23 June the referendum on membership of the European Union resulted in a decision to leave the EU. There are no major consequences that significantly impact the Annual Report & Accounts, however we will continue to monitor the consequences of the outcome of the referendum closely.

## Summary

2015/16 has been a year of continued transition for Network Rail, the second year of what is proving to be a challenging control period.

Charges continue to fall in real terms, and all cash generated from operations, alongside additional borrowing is being invested in improving the railway network. This has allowed us to deliver record levels of enhancements designed to reflect increased demand for rail travel, and in doing so progress against the baseline set out in the Hendy Review. We continue to work hard to improve overall levels of asset reliability and network performance through high rates of renewals and maintenance. Nonetheless the levels of outputs set out in the regulatory settlement, including train performance, remain challenging and we are focusing hard to make the most efficient use of the resources at our disposal. To maintain this investment momentum, the regulatory settlement and DfT loan agreement provide strong security for future income and financing and we look to augment this by finding additional cash flows and commercial opportunities. In doing so, we enhance our capability to meet the challenges of providing the railway that Britain needs.

Jeremy Westlake  
Chief financial officer  
30 June 2016







# OPERATING REVIEW, ENGLAND AND WALES

**Network Rail operates across seven routes in England and Wales. This devolved structure promotes competition and enterprise, faster decision making and effective benchmarking. Above all, it places our business units close to the customers and communities they serve.**

While we continue to operate the safest railway in Europe and overall 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.

Train operating performance improved on some Routes, but overall we are still not where we need to be. Adverse weather caused landslips and significant flooding across a number of locations, negatively impacting our performance and causing disruption to fare paying customers.

On a brighter note, our controls and planning for major engineering over weekends and bank holidays improved significantly as a result of the lessons learnt from the 2014 Christmas period. It is pleasing to report that no overruns occurred in working over the 2015/16 bank holidays, Easter and Christmas.

A number of major projects were delivered and brought back into use, and significant track renewals were also delivered.

Following the Bowe, Hendy and Shaw reviews, the Routes are now forming closer and clearer working arrangements with the train and freight operating companies, based on greater levels of devolution and autonomy.

Further details of individual Route performance, enhancements and plans can be found in the Route reviews below.

Whilst 2015/16 was a tough year, 2016/17 will provide more challenges as we seek to accommodate more passengers and freight on our network, and continue to invest in network upgrades. All this while continuing to provide a safe and reliable railway for all our customers.

P. Shuf Ton

**Phil Hufton**  
Managing director, England and Wales  
30 June 2016

# ANGLIA

## Introduction

Anglia route comprises the railway from London Liverpool Street to Norwich, Cambridge, Hertford, Southend and Stansted Airport; services into Essex from Fenchurch Street; and overground services from Stratford to Richmond. Our main train operating customers running passenger services are Abellio Greater Anglia (including the Stansted Express), c2c, TfL Rail and London Overground. London Liverpool Street station, the capital's third busiest station, is owned and managed by Network Rail.

## Safety

Anglia has had a challenging year. Close call reporting is now well embedded across the Route. Over 5,700 close calls to eliminate potential accident hazards were made in 2015/16, with 62 percent of these closed within 28 days. However, this has not delivered the anticipated reductions in lost time injury frequency rate with the highest risk areas of track worker safety being driving and slips, trips and falls. We need to address this in the coming year.

In addition to safety related activities the route is progressing health and well-being initiatives including Hand Arm Vibration (HAVs) and mental wellbeing.

## Performance

Since May 2015 there have been some changes in performance for our lead operators, particularly for London Overground Rail Operations Ltd (LOROL) and TfL Rail.

TfL Rail has seen a constant level of high performing days, with the number of trains running to time above 94 percent. Improvements have in part been driven by an improved maintenance regime of the fleet.

For LOROL, we have seen some challenging performances across the East London Line and West Anglia. We are working together to improve the West Anglia services by improving the reliability of the infrastructure at critical junctions and in the approaches to Liverpool Street station.

Abellio Greater Anglia has had a challenging year, particularly during autumn 2015. The fleet reliability improvement plan and focus on rural recovery is starting to address the declining performance trend.

c2c performance has remained stable following successful joint introduction of a new timetable in December 2015, which has meant an increase of 20 percent in services running across the network each weekday, and a significant increase in Sunday services.

A significant number of freight services serve ports at Felixstowe and Thameshaven and other businesses throughout the region.

## Enhancements

We made substantial progress towards delivering bigger and better passenger services and connectivity on the Route. On

the West Anglia main line we worked closely with the local council to deliver a new station at Lea Bridge, providing passengers in Waltham Forest with fast services to Stratford and Tottenham Hale. Further north, we started work on a new station at Cambridge North, providing access to Cambridge Science Park. The station is due to open in May 2017.

Work on Crossrail continued, which will transform services into and out of London from May 2017 with better stations, new trains and more frequent services. Working with the DfT and TfL, we started upgrade works to electrify the Gospel Oak to Barking line. Works will continue through to mid-2017, with TfL due to run its first longer, greener electric passenger services in early 2018.

## Renewals

We continued a number of long-term renewals projects, targeting improved reliability of the Great Eastern main line. Since early 2015 the high output ballast cleaner has renewed 63km of track ballast between Shenfield and Norwich, improving the drainage on the line and providing a solid foundation for smoother journeys. We also continued renewing the overhead line electrification between London Liverpool Street and Shenfield, this year completing over 22km of new auto-tensioned cabling, improving reliability.

We work collaboratively with local authorities on our ongoing level crossing closures programme. In autumn 2015 two public exhibitions were held to identify preferred options among local communities and we are now pursuing the closure of a number of individual level crossings, including Gipsy Lane in Suffolk, where there was a fatality in 2011.

## Looking to the future

The Hendy review reset some enhancement targets in Anglia to beyond the current control period (2014–19), with schemes at Ely North junction and Bow junction scheduled to take place after 2019. This re-focuses attention on the schemes that remain in our CP5 plan. The priority now is to deliver these schemes on time and on budget.

During the year a new rail operating centre (ROC) was opened in Romford, where Abellio Greater Anglia and Network Rail route controls are co-located. Introduction of Traffic Management (TM) is in progress, with the planned go-live date of November 2016 in Essex Thameside. Anglia TM Deployment is one of the first steps of the Digital Railway vision and is intended to prove the technology, new operating model and lay the groundwork for subsequent national deployments.

**Richard Schofield**  
Route managing director, Anglia  
30 June 2016

# LONDON NORTH EAST AND EAST MIDLANDS

## Safety

Safety has progressed well and the Route continues to reduce lost time accidents, with the Lost Time Injury Frequency Rate (LTIFR) at 0.62 – 0.15 down from 0.77 last year.

## Performance

Despite Yorkshire and the North East being hit by some of the heaviest rainfall in recent years, the Route recorded consistently good performance, with highlights including the lowest incident count recorded under Network Rail and the lowest delay minute returns during a period. This performance was delivered alongside several major events taking place across the Route and more improvement work carried out over bank holidays. This included working with train operators and regional authorities in major cities across the Route to ensure fans travelling by train reached Rugby World Cup matches safely and on time.

However, we have also faced challenges. Significant incidents along the Transpennine corridor throughout the year have led to poorer than expected performance from train operating company First Transpennine Express and subsequent reputational risks and impact on passenger satisfaction. We are working closely with our train operating customers and colleagues in the London North Western Route to take the opportunity of the new franchise, which started in April 2016, to identify where improvements can be made for our passengers.

## Enhancements

In January 2016, the railway in North Lincolnshire was closed for 17 days while we replaced 60 miles of 100-year old signalling and undertook major bridge reconstructions. Improvements in power supply on the East Coast main line (ECML) and early work on the Midland main line (MML) Route upgrade continued alongside the opening of Leeds station southern entrance.

## Weather impacts

During the winter, emergency works included the much-publicised landslip near Hexham. After major reconstruction work, we delivered the railway back to operators at the planned time.

## Working with our customers

In January 2016, the Route signed an alliance with Virgin Trains East Coast that commits us to working even more closely together in order to deliver a safer, better and more reliable service to our customers on the East Coast main line. As part of the alliance, we will be working together on infrastructure upgrades for the new Azuma trains, digital signalling, transforming stations and managing and preventing delays.

Focusing on passengers, we are working with Northern Rail on the Customer Information Screens (CIS) 100 project to improve passenger information at some of the most remote stations on the network.

During the year we installed Customer Information Screens at 20 Northern Rail managed stations. At the same time, customer satisfaction at our own-managed station at Leeds increased to 86 percent (2014/15: 79 percent), as polled by the independent watchdog Transport Focus.

Overall, the Route rated four stars (out of five) against the European Foundation for Quality Management 'Recognised for Excellence' model, recognising the improvement the Route has made in leadership, strategy, people and business results since the last assessment in 2013.

## Looking to the future

The Route has an investment portfolio over the next eight years that will significantly change three of its key mainline routes.

The Secretary of State for Transport has determined a high level set of outcomes for the Transpennine route comprising: provision of capacity for six fast or semi-fast inter-regional trains per hour, journey improvement times by up to 15 minutes between Manchester and York, and the completion of the electrification of the route from Manchester Victoria to Leeds and Selby/York.

A key output included in the Government's 2012 HLOS was the implementation of the Intercity Express Programme on the East Coast main line. Network Rail's obligation is to deliver the infrastructure upgrades on the ECML to enable Intercity Express Programme (IEP) (Class 800/801) train operations. IEP is proposed to operate over the ECML core and diversionary routes, bringing faster, quieter and greener trains with more seats for passengers.

The MML Programme is part of a rail industry programme that aims to transform travel to and from London on the Midland main line during CP5 and CP6 and improve the links between the core centres of population and economic activity in the East Midlands and South Yorkshire by creating an electrified corridor.

Combined, the improvements to the three main lines on the LNE & EM route will bring major benefits to our customers, passengers and the economies in the North and Midlands.

## Rob McIntosh

Route managing director, London North East and East Midlands

30 June 2016

# LONDON NORTH WESTERN

## Introduction

London North Western (LNW) route stretches from London to Carlisle, covering the major conurbations of the West Midlands and North West of England. The route works closely with its four lead train operating companies (TOCs) – Chiltern Railways, London Midland, Merseyrail and Virgin West Coast – as well as other TOCs such as Northern Rail, Trans Pennine Express and Cross Country, and the freight operating companies. These close working relationships have enabled the route to deliver a number of outstanding successes in 2015/16, from the opening of the first new railway between London and a major UK city for over a hundred years, to the refurbishment and opening of a fabulous station at Birmingham New Street, which resulted in a significant improvement in passenger satisfaction of 16 percent.

## Safety

Our aim is simple and aligned with our corporate vision, everyone home safe every day, whether employees, passengers or members of the public. Our people are our greatest asset and their safety, health and wellbeing is our highest priority.

We have continued to reduce risk at our level crossings, with our Fatality at Work Index (FWI) having reduced by 12 percent against our Control Period 4 (CP4) exit figure.

Close call reporting is now embedded as business as usual across our Route. Last year we made 16,807 calls, exceeding our target of 14,000, 64 percent of these close calls were closed within 28 days.

The numbers of our staff taking part in a safety hour every week continues to increase. Between periods 6 to 13 8,906 safety hours took place with 87,102 members of our team attending them. That's the equivalent of completing a safety hour to a near capacity Wembley Stadium.

LNW's community safety team proactively engages with members of the public and our lineside neighbours across our route through the provision of education and advice to people who often interact with the railway. Within the past year we have improved our delivery methods so that we can take our safety messages to people no matter what their age, interest or learning style.

## Performance

2015/16 was a challenging but rewarding year for our Route. Performance highlights included Virgin Trains' Public Performance Measure (PPM) rising from 84.8 percent to 86.0 percent and London Midland's rising from 88.0 percent to 88.1 percent. Good progress was also made towards challenging Cancellation and Significant Lateness (CaSL) targets, with both Chiltern Railways and Merseyrail exceeding their respective targets against this metric. Consistent, day to day performance is improving across the board, despite increasing passenger numbers and more trains than ever running across the route.

## Enhancements

After a five-year, £750m transformation, Birmingham New Street station opened in September 2015. It was a regional and national event – reflected in November 2015 when Her

Majesty the Queen formally declared the new station open. In October 2015 Manchester Victoria station was also re-opened, this time by the Secretary of State for Transport, after a £44m makeover. Both new stations have had resounding stakeholder and customer approval.

In October 2015, Chiltern Railways launched services from Oxford Parkway to London Marylebone - the first new rail connection of a major city to the capital in a century. Prime Minister David Cameron opened Oxford Parkway station.

And in May 2016, a new rail flyover at Norton Bridge, near Stafford, opened to trains. It is the final piece of a £250m upgrade including speed and capacity improvements between Stafford and Crewe. Together with new signalling, it removed a major bottleneck on the West Coast main line and marked the last significant upgrade before the capacity benefits of HS2 are realised.

## Weather impacts

The LNW Route was hit by three major landslips – at Harbury (850,000 tonnes), Eden Brow in Cumbria (500,000 tonnes) and Leighton Buzzard (2,200 tonnes). These were among more than 50 landslips that affected the Route. Repeated storms caused major flooding of the railway near Carlisle and several washouts on the Cumbrian coast line.

Our engineers and contractors worked tirelessly, often in very difficult circumstances, to reinstate the railway, but services and performance suffered.

## Working with our customers

Five LNW Twitter feeds are now an embedded communications channel, offering immediate passenger information and supporting our train operating company customers. In the spirit of transparency we now tweet pictures of, for example, broken rails, land slips or fallen trees, to show the problems that we face. This has been well received by train operating companies and passengers.

## Looking to the future

December 2016 will see the launch of Chiltern Railways services from Oxford Station through to London Marylebone, and the first phase of a new rolling stock depot at Banbury. Work to increase capacity and improve connectivity at Bromsgrove will be delivered via an integrated electrification enhancement and signalling renewal project due to be commissioned in April 2017. Infrastructure to enable the running of electric rolling stock from Walsall to Rugeley Trent Valley is on schedule to be completed for December 2017.

North West electrification phases 3–5 continue to progress through development and implementation, with commissioning dates from December 2016 onwards.

An integrated renewals, enhancement and third-party funded portfolio of projects totalling some £350m and including new stations, capacity improvements and new rolling stock enabling works will be delivered to the Liverpool City Region.

## Martin Frobisher

Route managing director, London North Western  
30 June 2016



# SOUTH EAST

## Safety

Getting everyone home safe every day is a priority for the organisation and for our Route. Our focus on embedding a safety culture has increased awareness around safety from trackside to the office. This has contributed to a reduction in Lost Time Injury Frequency Rates (LTIFR) from 0.857 to 0.812 at the end of 2015/16.

The prevention of accidents is a key focus for the Route with 5,645 close calls reported in 2015/16. Each close call is a potential accident avoided thanks to our people taking decisive action to highlight safety risks.

## Performance

The South East Route is Network Rail's busiest and most congested, connecting London with Kent, Surrey, East and West Sussex and Continental Europe.

Passenger numbers have grown by 40 percent and 32 percent in the past five years, for Thameslink and Southern respectively. This growth is set to continue, with a peak forecast of 20 percent growth in the next ten years.

2015/16 has been a very challenging year on the South East Route with the performance of both train operating companies, Govia Thameslink Railway (GTR) and Southeastern Railway declining from the previous year. GTR achieved 81.5 percent Public Performance Measure (PPM) in 2015/16 (compared to 83.8 percent in 2014/15) and Southeastern PPM achieved 86.9 percent (compared to 89.3 percent in 2014/15).

We acknowledge that current performance on the Route is unacceptable. We are determined to improve our performance and are working closely with our train operating companies to do so. Network Rail are focusing on predicting and preventing incidents rather than reacting and responding when things go wrong. We are committed to improving the reliability of the railway infrastructure across the Route with more robust maintenance planned, particularly in critical key locations. We are also working closely with both GTR and Southeastern on joint performance improvement plans.

## Enhancements

To meet demand, we are providing extra capacity on many routes by extending platforms and upgrading power supplies to accommodate longer trains.

The Thameslink Programme, part of the Railway Upgrade Plan, is a once in a generation transformation of the railway. Once complete, the programme will deliver more capacity into and through London Bridge, and the capital itself. This will see a maximum of 24 trains per hour in each direction at peak times between London Blackfriars and St Pancras International. In addition, passengers will enjoy improved connections with new travel options to more destinations.

Journeys will be more frequent with trains every two to three minutes in each direction through central London at the busiest times.

There will be new modern trains and stations including the rebuilding of London Bridge. However, a transformation of this scale, while operating the busiest Route, does cause disruption.

During the year, passengers have experienced considerable disruption at London Bridge. While we rebuild the station we have continued to run the same volume of trains on a reduced number of tracks which has created a very tight timetable. This limits our ability to recover the service from any delay so small problems can quickly snowball, which has had a negative impact on performance.

## Looking to the future

August 2016 will see the first half of the new concourse opening at London Bridge. When complete it will be the size of a football pitch and will significantly improve the overall customer experience at the station.

Over Christmas 2017 the brand-new Bermondsey dive-under will be complete, untangling the tracks approaching London Bridge from South East London, Croydon and Kent. This will give more flexibility to improve reliability and reduce delays for passengers with more frequent longer trains and more connections.

This is both an exciting and equally challenging time for the Route and we continue to work hard to improve our performance and deliver better, more reliable journeys for our passengers.

## Alasdair Coates

Route managing director, South East  
30 June 2016

# WALES

## Safety

Safety is always our first priority. The Wales route continued to reduce lost time accidents, with the Lost Time Injury Frequency Rate (LTIFR) at 0.51, down from 0.88 at the beginning of Control Period 5 (CP5). Passenger and public safety also continued to improve, with train accident risk events seeing a 20 percent reduction since the start of CP5. Close call reporting is now well embedded across the Wales route. Over 4,000 proactive close calls to eliminate potential accident hazards were made by our people in 2015/16, with a closure rate within 28 days of over 60 percent.

## Performance

Arriva Trains Wales (ATW) train performance has improved significantly since the start of their franchise, with 92.2 percent of trains arriving 'on-time' in 2015/16.

2015/16 saw a reduction in the knock-on impact of incidents during the year specifically on the Valleys network, indicating improvements in our capability to manage the train service during disruption.

The Cancelled and Significantly Late (CaSL) year-end target was achieved, with 2.71 percent of trains either cancelled or significantly late against the target of 2.74 percent. Cancellations due to flooding was lower than previous years, this despite rainfall levels being considerably higher than average, indicating that recent flooding mitigations are now delivering benefits.

## Working with our customers

The Wales route is working increasingly closely with our stakeholders – Arriva Trains Wales, our other train and freight operating companies, Welsh Government, passenger groups and community rail groups.

We also have a regular dialogue with Transport for Wales, the organisation formed by Welsh Government to lead on the development of the South Wales Metro concept. The Welsh Government's aspiration is to improve integrated public transport services in South East Wales and we are working closely with Welsh Government and Transport for Wales to help achieve this.

The focus of the route has been to improve customer satisfaction. An action plan has been devised in conjunction with our customers who provided feedback through both official and local channels. The actions target a number of improvement areas and feedback is provided to ensure the targets and aspirations are met.

A strong example of customer collaboration was the Rugby World Cup, held across England and Wales in autumn 2015. A number of warm up and tournament games were held in the Principality Stadium in Cardiff. The stadium is located very close the Cardiff Central station and a high percentage of fans arrived and departed by rail. With tens of thousands of passengers using rail, plans needed to be drawn up and executed with the help of all industry parties.

While there was a great deal of focus at Cardiff Central, there was also attention given to other Route stations and key locations, along with other forms of transport. We also collaborated with stakeholders, including Rugby World Cup, train operating companies and Cardiff Council to ensure that rail passengers received timely messaging.

As part of the Railway Upgrade Plan, the Wales route is seeing an almost unprecedented level of investment. The route has worked closely with our train operating company partners to communicate the impact of the work and the benefits that it will deliver, including faster, more frequent and more reliable journeys. We have also been working with local authorities across South Wales to facilitate the bridge reconstructions necessary to deliver electrification.

## Looking to the future

The railway in Wales has seen a decade of unprecedented growth, with a rise in passenger journeys of almost 50 percent. Our forecasts suggest that passenger growth levels will continue to be strong during the next three decades, particularly in the south east of Wales and in the north east of Wales.

Demand for rail freight is expected to change to reflect global market conditions, which is likely to see a decline in the volumes of coal and steel traffic in Wales, and continued growth in intermodal container traffic.

Every day the railway supports economic growth, reduces the environmental impact of the transport sector and improves the quality of life for people and for communities. Wales relies on a safe and punctual railway.

In March 2016, we published the Welsh Route Study, which sets out the industry's plan to meet future demand so that the railway continues to make a positive difference to the economy, to the environment and to people's lives. The Route Study explains how demand will grow and the choices that exist for governments, franchise specifiers and other funders to meet this continued growth. The redevelopment of Cardiff Central to create a station that is fit for a capital city, as well as the modernisation of the North Wales coast line in readiness for HS2 to Crewe, are examples of these choices. The study sets out how the Digital Railway will improve capacity and connectivity in the medium to long term.

**Paul McMahon**  
Route managing director, Wales  
30 June 2016

# WESSEX

## Safety

Safety continues to be our number one priority and our aim is to get everyone home safe, every day. Workforce accidents resulting in time away from work remains stable. The Lost Time Injury Frequency Rate (LTIFR) at the end of 2015/16 was worse than target, although it did improve in comparison to the prior year. The Route continues to deliver a series of safety workshops aimed at improving our safety culture and thus reducing workforce harm.

Reporting of close calls provides an opportunity to eliminate an unsafe act or an unsafe condition before it results in an accident. 4,352 close calls were reported in the year and 57 percent of these were closed within 28 days, exceeding the target of 3,776 close calls reported with 50 percent closed within 28 days.

Risk reduction at level crossings is being achieved by delivering level crossing closures, renewal schemes and enhancements. In order to meet targets for risk reduction, while also balancing the needs of the local communities, we are increasingly seeking to involve local stakeholders in the selection of level crossing sites for closure. At the end of 2015/16, level crossing risk reduction was ahead of Route target.

## Performance

Apart from arriving safely, we know that passengers value punctuality most of all. The Route continued to deliver performance improvement throughout 2015/16, notably, infrastructure reliability improved by 12 percent compared with 2014/15 and we saw a reduction in the number of infrastructure failures.

Overall train performance on the Wessex Route remained static relative to 2014/15, at an average of 90.1 percent. That is some 90.1 percent of South West Trains (SWT) services ran on time as measured by the industry performance measure and 66.7 percent of trains arrived at their destination within 59 seconds of their scheduled arrival time.

## Enhancements

The Wessex Route is one of the busiest and most congested in the country, with over 230 million passenger journeys per year. The number has doubled in the last 20 years and further growth of 40 percent by 2043 is forecast. London Waterloo is the UK's busiest station, with over 99 million passengers in 2014/15 and a train arriving or departing virtually every minute during peak times. As demand on the network grows, it is important that we collaboratively develop both short- and long-term solutions to provide extra capacity for our customers.

The Wessex Capacity Improvement Programme is an investment of over £800m to boost peak time capacity at London Waterloo by 30 percent by 2018, improve the reliability of services and pave the way for future improvements to long-distance routes into London Waterloo.

This major investment programme started in late December 2015 and will increase significantly in 2016. It involves the former Waterloo International Terminal reopening to new commuter services; lengthening of platforms to allow new ten-car services with more passenger space on suburban routes from 2017/18; and new trains with 150 new carriages with more space for passengers on the Windsor lines from 2018/19.

## Working with our customers

The Route continues to work more collaboratively with customers, stakeholders and interested parties. South West Trains (SWT) is the largest train operator customer and during the year we have restructured the alliance arrangements between Network Rail and SWT to retain and strengthen the critical elements of joint working, including train planning. This allows us to focus our efforts on improved performance across the entire Route. The alliance has also enabled new technologies to be utilised. For example, between Basingstoke and Eastleigh the overnight high output ballast cleaning and track relaying machines have been used for the first time on a third rail network, enabling large stretches of 30 year old track to be renewed and maintained without passengers being disrupted by weekend line closures.

Customer satisfaction at our own-managed station at London Waterloo was above average at 89 percent, as polled by the independent watchdog Transport Focus.

## Looking to the future

The Wessex Capacity Improvement Programme will make a significant contribution towards meeting the capacity challenge, but the predicted future growth in demand will require further investment in the network, in particular the use of new train movement technology (the Digital Railway) and Crossrail 2.

## John Halsall

Route managing director, Wessex  
30 June 2016

# WESTERN

## Safety

The Route continued to reduce lost time accidents, with the Lost Time Injury Frequency Rate (LTIFR) at 0.579, 0.207 down from 0.786 at the beginning of CP5. Passenger and public safety also continued to improve; train accident risk events have reduced by 20 percent during 2015/16 since the end of 2014/15.

Close call reporting is now well embedded across the Route. Over 6,600 Close Calls to eliminate potential accident hazards were made in 2015/16, with over 51 percent of these closed within 28 days.

A renewed focus on public and staff safety saw safety performance improve dramatically towards the end of the year. Work to replace the Ufton Nervet level crossing with a bridge began with the relocation of the memorial garden to those who died in 2004's rail crash on this site.

## Performance

After a poor start to the year, a new performance improvement plan started to show real benefits in the second half, with performance targets being hit and surpassed. The Route ended 2015/16 with a moving annual average Public Performance Measure figure of 89.5 percent for Great Western Railways and 91.8 percent for Heathrow Express.

During autumn 2015 extra resources were mobilised specifically to manage passengers for the Rugby World Cup, which was handled successfully by joint working with our train operators and other agencies.

## Enhancements

Progress continued on Great Western Electrification with major advances in the construction of overhead line equipment, including the first wire installations. Preparing Brunel's railway for electric power was a major feature of the year with bridge reconstructions and track lowering taking place across the region – all done while we provided an ever more reliable daily service for our train operators and passengers.

The Great Western Electrification Programme by the end of 2015/16 has now installed nearly 3,500 piles and 11 of the 26 transformer stations needed. Summer 2015 saw a successful 45-day blockade at Bath for work at Box Tunnel, Sydney Gardens in the city centre and elsewhere. The £50m work package involved partial or complete closures for the whole period and required extensive preparation with local stakeholders and train operators. The project was delivered on time, to budget, with minimal complaints from lineside neighbours and passengers and no injuries, despite having to work on a World Heritage Site, many listed structures and one Scheduled Ancient Monument.

Work to build the western section of Crossrail, around the existing rail lines continued, with the 1,500 tonne Stockley Flyover installed over the main line in November 2015, six weeks ahead of schedule.

## Weather impacts

Work to protect the line of the Dawlish Sea Wall finished in June 2015. Shortly afterwards we launched a research consultation to determine the future resilience needs of the line from Exeter to Newton Abbot.

## Working with our customers

In February 2016 we signed an Alliance Agreement with Great Western Railways. This covers operations, planning, upgrades and communications, and will formalise and improve the already strong joint working relationship to benefit all rail users.

We continued to develop customer engagement and information services during the year. The Twitter feed for the route @networkrailwest saw a huge increase in followers, hitting 10,000 during February 2016. We carried out just under 100 drop-in sessions for lineside neighbours at various locations during the year to inform neighbours of planned work.

## Looking to the future

While Great Western Electrification continues, major renovation of London Paddington Station began in 2015/16 with cleaning and replacement of the roof glass and ironwork at the Grade 1 listed building. Similar work to renovate Bristol Temple Meads, also Grade 1 listed, commenced with the removal of the unused and unsightly post office conveyor bridge. When these improvements are completed, passengers will benefit at both ends of Brunel's great line with stations fit for the 21st century.

Elsewhere, major works are on the point of starting at Oxford station, while nearby at Hinksey a weather resilience programme will drastically reduce the frequent flooding at the site and will take place during 2016/17. Another major theme of the year has been the preparation and consultation for the Western Rail Link to Heathrow, which will offer significantly improved access to the airport and relieve congestion at Paddington.

## Mark Langman

Route managing director, Western

30 June 2016



## OPERATING REVIEW, SCOTLAND

**The Scotland Route integrates a deep alliance with Abellio ScotRail, the ScotRail Alliance, and delivered excellent first year results. The new ScotRail Alliance aligns all teams and activities to focus on our customers and in so doing outperformed customer satisfaction measures.**

This was a year of transformation as the route embarked on a deep alliance with Abellio ScotRail bringing Scotland's rail industry closer together and realigning our behaviours and practices to place greater focus on our fare paying customers.

Known as the ScotRail Alliance, this new joined-up way of working has led to safety, delivery, performance and financial benefits for both organisations as we adopt a 'one railway' approach.

Our overall safety performance has improved significantly across all activities through a renewed focus on safety leadership.

Our train performance also improved over the first half of the year although the effects of severe weather – including the heaviest rainfall on record through December and January – did impact our performance during autumn and winter. Internally we are emphasising the need to deliver the on-time running of services and a continuous drive to get the day-to-day basics right.

Over the year we have delivered all of our key volumes of renewals and were under budget by implementing asset management lessons from previous years, managing our work banks with little late change and closely controlling delivery agents.

Further collaboration with Infrastructure Project teams also continues to deliver success for the travelling public as the Winchburgh Tunnel blockade demonstrated. Our integrated approach to this six-week closure included extensive customer and neighbour communications, station and customer flow management, managing infrastructure and rolling stock reliability and completion of the works.

The delivery of Borders Railway was another joint success

that has contributed significantly to not only the local community it serves but also to raise wider awareness of the economic and social benefits that railway can bring.

Rewarded with a 90 percent customer satisfaction score in the autumn 2015 National Rail Passenger Survey and with excellent safety and financial performance during the year, the first year of the ScotRail Alliance has been a success; but we need to maintain this momentum and continue to focus on delivering our key measures to further improve the customer experience.

**Phil Verster**  
Managing director, Scotland  
30 June 2016

### Safety

The Route continues to reduce the number of lost time accidents in Scotland with a reduction of seven major RIDDOR injuries in 2014/2015 to one in 2015/2016 and a reduction of 46 lost time causing injuries to 33. This has seen the Route's LTIFR for the past year improve from 0.884 to 0.543.

Level crossing safety performance continues to be good. Records show no collisions with road vehicles on any of our level crossings for the second consecutive year and just two near misses with road vehicles.

Passenger accidents at our two managed stations have also seen an improvement in the LTIFR at Edinburgh Waverley from 0.07 to 0.05 and Glasgow Central from 0.05 to 0.02 despite increased footfall and events.



## SCOTLAND CONTINUED

### The ScotRail Alliance

Network Rail Scotland Route joined with Abellio ScotRail to form the ScotRail Alliance in May 2015. Managing Scotland's Railway under a single leadership team and with a balanced scorecard, the ScotRail Alliance is operating to a common objective: to deliver the very best for our customers and to deliver 125m customer journeys by 2025.

With newly formed, integrated teams overseeing all parts of the business, the ScotRail Alliance is focused on improving customer experience, workforce engagement and development, continuous improvement and delivering benefits for Scotland.

### Performance

2015/16 was a year of significant success and significant challenges. Our relentless customer focus was rewarded with a record equalling score of 90 percent satisfaction in the autumn 2015 National Rail Passenger Survey.

While train performance was below target for the year for both ScotRail and Caledonian Sleeper, we ended our first year as the ScotRail Alliance 0.2 percent ahead of the public performance measure (PPM) recorded in April 2015. This was despite facing the wettest December on record, several severe storms and the unexpected closure of the Forth Road Bridge. During the closure, we completely remodelled the timetable and increased our rail capacity for Fife by 60 percent and 8,000 extra seats per day, but to the detriment of around 0.5 percent on our annual PPM figure.

We delivered our ScotRail Alliance financial objectives and made improvements in our route operational expenditure and cost base. We did not achieve all of our objectives but have implemented a cost efficiency programme that will deliver £83m of savings over the remainder of CP5.

Train service performance and customer satisfaction remained strong during the 44-day Winchburgh Tunnel blockade on the main line between Glasgow and Edinburgh. Affecting hundreds of thousands of passenger journeys, the integrated approach of the Edinburgh Glasgow Improvement Programme (EGIP) and the ScotRail Alliance teams delivered this high profile project on time - while making sure that the impact on our customers was minimised throughout.

### Enhancements

Scotland's rail network was transformed during the year when Her Majesty The Queen opened the Borders Railway. Seven new stations and 30 miles of new track made this the longest domestic railway built in Britain for 100 years. Borders has been an extraordinary success. Passenger journeys have exceeded initial projections, with 500,000 journeys completed by January 2016, while businesses and tourist destinations are reporting record turnover since the line opened.

As integrated teams we are taking an entirely different approach to what, previously, would have been difficult and time-consuming decisions. Working collaboratively on projects has given better and more access to our project teams – allowing work to take place at a time that has the least impact on our customers, while maximising the deliverability of the enhancement programmes that will benefit those customers.

A significant beneficiary of this new approach was the Edinburgh-Glasgow Improvement Programme (EGIP). This complex programme will continue to face challenges until its completion in 2019. Significant progress continues at pace with the recent completion of route clearance works involving 61 structures along the line of route(s) and ongoing construction of Edinburgh Gateway Interchange due December 2016.

The successful completion of the slab track renewal works and electrification of Glasgow Queen Street station will also be the most significant, visible and high profile work on Scotland's railway in a generation. This 20-week project, which started in March 2016, is progressing well with minimal impact on customers and is due to end in August this year.

While our total asset reliability was 2.8 percent below target, during the year, we achieved a composite reliability index score of 13.1 percent and exceeded this target by 3 percent. By adopting pragmatic approaches to stable work banks, clear plans and collaborative relationships with our suppliers, we exceeded all key renewal volumes, at a cost £12.8m below budget.

We also enhanced our customer service offering through the introduction of a new SMART card solution to replace paper tickets and to improve the ease of transactions and travel.

### Weather impacts

Even for a country used to severe weather, this has been an extraordinary year for Scotland. The storms over New Year affected all parts of Scotland Route, but none more so than at Lamington Viaduct on the West Coast Main Line.

Despite extensive flood damage, months of disruption on the main artery between Glasgow and London was avoided through the efforts of our Network Rail Infrastructure Projects team. Adopting a 'one railway' approach, we displaced ScotRail services on the Glasgow South and West (GS&W) route in order to provide Virgin Trains West Coast a diversionary route.

### Looking to the future

Phase 1 of the Aberdeen to Inverness Improvement Project is underway and will deliver more capacity on what is a fast-growing section of the network. This is a challenging project and given the infrastructure interventions required to deliver the outputs significant stakeholder engagement is underway to determine the most effective and least disruptive delivery strategy. The infrastructure improvements will transform the number of services that can be run across the North and North East of Scotland.

Similarly, the Highland Main Line programme will benefit significantly from our 'one railway' approach to optimise infrastructure interventions on the route, given the choice of high speed train (HST) rolling stock for future services.

Our biggest opportunity lies in maximising customer satisfaction through the improved decisions and better actions we can take as an aligned ScotRail Alliance team. Investing in our people and doing the basic things right will transform our railway and deliver for our customers and for Scotland.



# FREIGHT

**Rail freight is a crucial contributor to the UK economy. Each year the sector transports goods worth £30 billion, generating economic and environmental benefits of more than £1.6 billion. The sector's ability to move goods quickly, safely, sustainably, reliably and in bulk gives rail a competitive advantage over road.**

## Introduction

In 2015/16, the changes in energy generation policy and the simultaneous impact of a globalised steel manufacturing market has prompted a rapid change in rail freight's commodity base. The structural shift has accelerated the loss of traditional customer commodities, such as Electrical Supply Industry coal; reductions in steel industry raw materials and finished product traffic; and meanwhile there has only been modest growth across the intermodal, construction and automotive sectors.

Against this backdrop and an increasingly congested network, the aim of our National Freight Team (NFT) has been to continue to work collaboratively with the sector (operators, terminals and shippers alike) to deliver high levels of safety, train service performance, capacity and capability at efficient cost that will support rail freight growth.

## How we performed in 2015/16

Some of our key achievements in 2015/16 include:

- Reinforced safety culture – We have embedded regular safety discussions within the team and with our customers. We have also worked closely with the Route teams and delivered a reduction in the number of freight derailments compared to last year.
- Delivery of our regulatory performance target – The Freight Delivery Metric (FDM) is our regulatory target and measures the percentage of commercial freight trains that arrive at their destination within 15 minutes of booked arrival time, or with less than 15 minutes delay caused by Network Rail or non-commercial freight operator. Against this metric we have delivered 94.3 percent against our regulatory target of 92.5 percent.
- Improved customer satisfaction – We have delivered a 17 percentage point improvement, to 69 percent, in operator satisfaction compared to last year.

- Reprioritised Strategic Freight Network (SFN) investment programme – As part of the Hendy review, we have recast the CP5 SFN programme to better deliver a set of network enhancements that will support future rail freight growth.
- Capacity optimization – We continue to work closely with our customers to find ways to grow freight volumes without the need for capital investment, including supporting trials of heavier and longer trains on existing traffic flows; and reserving unused paths as strategic capacity, which will enable and support future growth.

## Looking to the future

Our plans for 2016/17 are challenging and present a real opportunity to help shape the future rail freight landscape. We aim to continue to work collaboratively with the sector, deploying structured continuous improvement and defining joint scorecards to manage our business and safety performance, especially given the commitment to deeper devolution.

Our key areas of focus will be to:

- Continue to deliver a safe, consistently reliable freight train service to our customers.
- Structure the freight organisation to respond to the recommendations made in the Shaw report.
- Develop and deliver SFN schemes.
- Work to review freight charges for beyond CP5 – a key enabler for rail freight sector growth, security and stability.
- Undertake collaborative business development with customers and freight shippers, promoting modal shift with existing and new rail freight users.
- Develop the joint freight scorecard with customers and freight shippers to manage business and safety performance.
- Develop with the sector, our joint Initial Industry Advice and Digital Railway proposal for beyond CP5.

# INFRASTRUCTURE PROJECTS

**We are one of the largest delivery businesses in the country. We deliver infrastructure renewals and enhancements and are accountable to the Routes.**

## Our performance

We operate as a project based organisation, able to respond to peaks and troughs in demand, whilst interfacing nationally with suppliers. This allows us to deliver a wide range of renewals and enhancements interventions across all infrastructure categories, whilst aligning and remaining accountable to our Route customers.

We have seen a significant improvement in performance on possession hand back, which resulted in reduced levels of delay for both the travelling public and freight operators. In terms of enhancement milestones, we have delivered a greater number of project commissionings on schedule, improving on our previous performance. However, there are areas where we did not meet our performance targets including where our costs have exceeded the budgets set and where some renewals volumes have not been delivered.

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 Government commissioning the Hendy review, which resulted in a significant re-profiling and re-costing of major elements of the Control Period 5 enhancement portfolio. 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 tax payer, on the delivery schedule and costs of the programme. We recognise the importance of now delivering to this commitment.

The continuing Enhancement Improvement Programme is focused on enabling an improved performance across a number of critical areas of project delivery including early planning, cost estimating, reporting, measurement and resource capability and planning. We are putting in place a stronger governance model that enables industry integration, joint decision making and clearly defined roles and responsibilities.

This will also be supported by the introduction of two separate key decision points in the life of a project: the decision to develop and the final investment decision to deliver it. We are ensuring greater formality, rigour and transparency around the processes that govern how projects progress through their different stages, and are working to improve the reliability of our cost estimates and quantification of the risk and uncertainty surrounding them.

In addition, and in recognition of the importance of improved links across the North of England, we are also creating a dedicated Northern Programmes team to drive the successful delivery of a number of key schemes including - Transpennine and Midland main line electrification, Northern Hub and Electric Spine.

## Projects delivered during the year

In total, Infrastructure Projects delivered £3.4bn of enhancements improving capability and capacity of the network, and £2bn of renewals to maintain infrastructure condition, an increase of £0.3bn on the prior year.

Recognising the significant amount of re-planning over the year, our performance against our 2015/16 corporate scorecard was assessed at 81 percent in May 2016 and we have delivered nine out of our top ten Infrastructure Project milestones, this is an improvement over our performance in 2014/15.

## Bank Holiday Working

The Bank Holiday periods are essential to allow us and our partners to carry out major enhancements, as well as core renewal works, 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 the key bank holiday periods. This focus has resulted in the successful delivery of a series of major enhancement and renewal projects over bank holidays in 2015 and 2016, and strong performance in the percentage of possessions handed back without impact to customers.

## Improving our safety

The safety of both our own workforce and those of our contractors and partners is of paramount importance. The focus on compliance with our Life Saving Rules and encouragement of reporting unsafe acts, learning from mistakes and planning to be safe continues to make our work safer.

Within the year we have driven significant improvements across our key safety metrics. Our Lost Time Injury Frequency Rate for the year was 0.333, considerably better than our target rate of 0.383. Fatality Weighted Injuries reduced from 0.115 to 0.074, a 36 percent reduction. Close calls reported reached 56,182, 67 percent above our target of 33,599. The rates of lost time accidents/days and accident/days over our major bank holiday work periods also continued to decline, compared to the prior six bank holidays.

We are now increasing our focus on driving industry change, through the supply chain, the development of industry common inductions, addressing consistency and ensuring that sites are safer before work commences.

We have developed a Safety Balanced Scorecard for procurement and from 1 April 2016 scorecard metrics will be part of procurement evaluation. An industry common induction to safety has been developed collaboratively with our supply chain and was mandated across Infrastructure Projects in June 2016. We are working on the development of a consistent set of Health and Safety standards to address contractors' concerns over variations.

Lastly, we have developed Prep4Safety, a programme aimed at improving our approach to sites before we start work on them. In 2014/15, over 30 percent of personal injuries on our sites had root causes in the underfoot conditions, i.e. the hazardous and untidy state of the site when we started work. Prep4Safety seeks to identify, remove or repair hazardous materials before work commences, and thus improve safety.



## INFRASTRUCTURE PROJECTS CONTINUED

## Projects delivered in 2015/16



**Manchester Victoria** station has undergone significant redevelopment as part of huge investment in the North West. Following careful restoration the station now has six national rail platforms and three Metro-link platforms.



In September 2015 the Scottish Government-funded **Borders Railway** was brought into service and is, at 30 miles, the longest new domestic railway built in Britain in over a century. It re-established passenger services for the first time in over 40 years from Edinburgh through Midlothian to Tweedbank.



From January 2016, **Leeds Station** has a new link to the south bank area and a fully accessible route to the city's Granary Wharf.



**Stafford Area Improvements Programme** is a £250m package of works to improve capacity and performance on the busy West Coast main line. Significant track, signalling and structures work was completed in the year.



**The Cardiff Area Signalling Renewal Programme** has seen significant investment in 2015/16 with 18 major stage works completed.



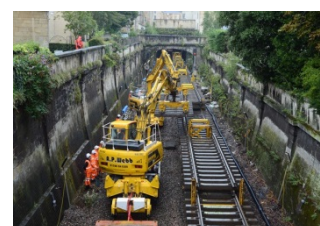
After five years of construction **Birmingham Gateway** station opened its doors to the public in September 2015, having been rebuilt while trains continued to run as normal for the 170,000 passengers a day who use it.



Old signalling equipment has been replaced with a new system in **East Kent** which will create capacity for future improvements to the timetable and support the introduction of 12-car trains.



London Bridge, one of the busiest stations in Britain used by over 50 million passengers each year, is currently being upgraded as part of the **Thameslink Programme**, which will transform north-south travel through London.



Major enabling works were completed as part of the **Great Western Route Modernisation**, protecting heritage sites from being demolished or remodelled. During a six-week block of the track between Bath Spa and Chippenham there were three separate sites being worked on, in the largest engineering intervention ever completed, including those at **Bathampton Junction**.



## DIGITAL RAILWAY

**The Digital Railway is a programme of modernisation to digitise the control, command and signalling systems on the rail network.**

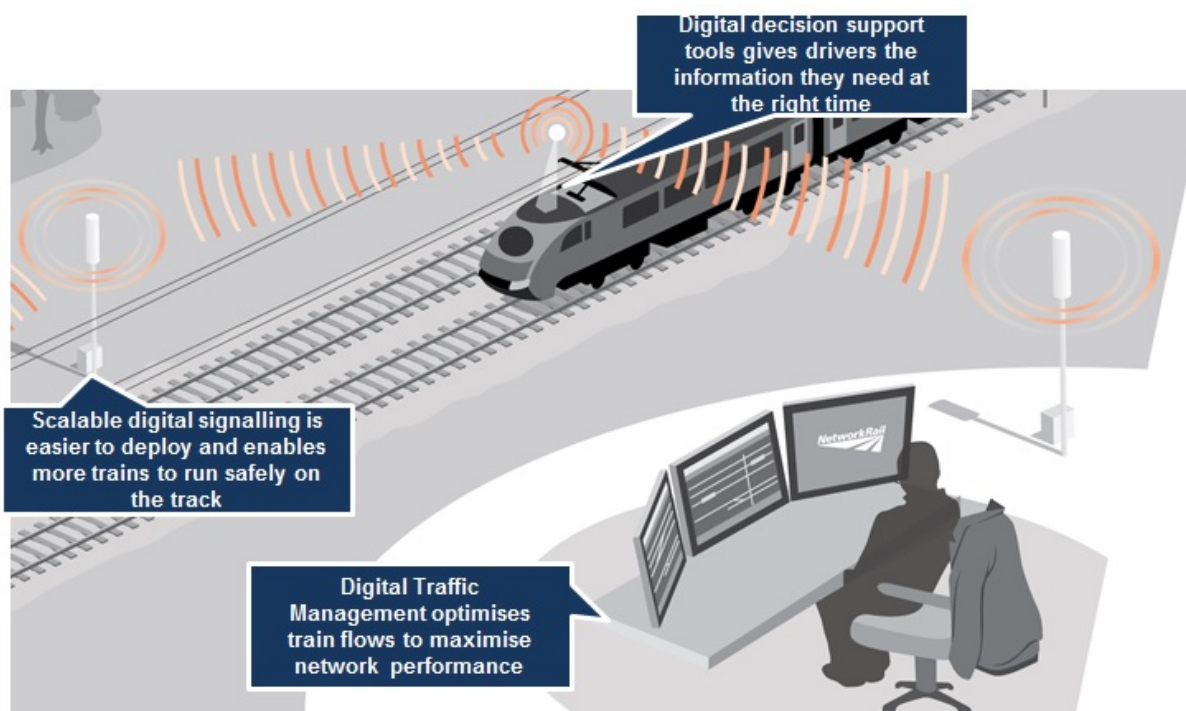
### **The Digital Railway programme**

A modern railway with improved connectivity and capacity is essential to a successful economy for Britain.

With the railway already full on some major routes, and with passenger numbers set to grow significantly in the next 20 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 vacated. Technology and innovation now offer us the opportunity to move beyond analogue signalling and train control – potentially unlocking up to 40 percent more capacity from the existing network as demonstrated in a study of the South West main line. (Source: [www.digitalrailway.co.uk](http://www.digitalrailway.co.uk))





## DIGITAL RAILWAY CONTINUED

The European Railway Traffic Management System (ERTMS), in particular, will allow more trains to be safely run over the same length of track. The key technologies involved include:

- European Train Control System (ETCS) – scalable digital signalling;
- Traffic Management (TM) – maximising network performance by allowing trains to run together as effectively as possible;
- Connected Driver Advisory Systems (CDAS) – in-cab digital decision support tools giving drivers the information they need at the right time to boost performance and maintain safety.

### Looking ahead for Digital Railway

The Digital Railway programme has already delivered a framework business case and proposed rollout plan for an accelerated programme of digital infrastructure. The next stage of the business case will be completed in autumn 2016, in conjunction with the industry's advice for investment in Control Period 6 (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. We are also assessing an 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 Advisory Group includes senior leaders from the Department for Transport, Rail Delivery Group, passenger train operators, freight operators, Transport for London, Crossrail, the Office of Rail and Road, and the Rail Supply Group.

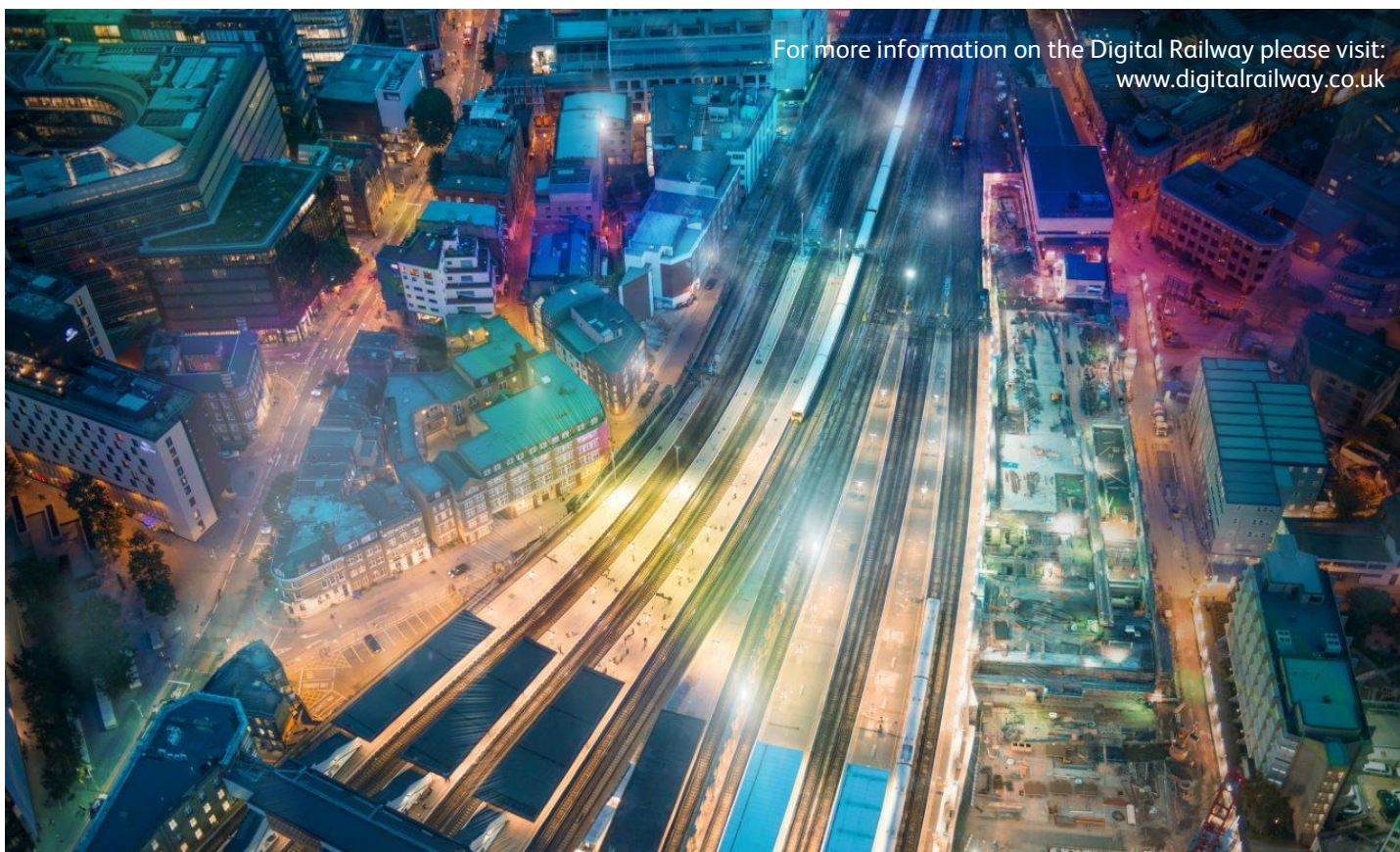
### Enablers to the Digital Railway

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.

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](http://www.digitalrailway.co.uk)





## PROPERTY

**We manage our land and property assets to improve experiences for passengers, reduce costs and create great places for businesses and communities to thrive. This allows us to generate sustainable income for reinvestment. At the same time we are looking at ways to help fund the Railway Upgrade Plan by selling assets to raise capital, as well as looking at ways to accelerate the release of land for housing to meet Government targets.**

### **Facilities and environments designed to meet passengers' needs at our managed stations**

During the year, almost 850 million people used Network Rail managed stations, and we aspire to meet their needs through our passenger-facing facilities and investment programme. We aim to deliver the station facilities modern consumers and passengers want, while creating sustainable streams of revenue to help fund the Railway Upgrade Plan.

Our retail business continues to grow and deliver positive like-for-like sales growth. Passengers are seeking a convenient and varied offer and we are providing this through careful management of our brands and retail categories. We averaged over 3.6 percent growth in like-for-like sales throughout 2015/16, almost ten times the growth of the high street, and continue to see an upward trend in retail penetration at our managed stations with over 68 million customers visiting our retail units in Quarter 3 2015 alone.

At the same time Network Rail is assessing better management models for stations – a piece of work looking at how we can maximise the value we get from the big stations that we own and manage, to support future investment plans.

### **Helping businesses and communities prosper and grow**

We also use our estate to strategically support station quarters, encouraging place-making and linking areas together so they act as an enabler and not a blocker for regeneration.

We use operational land to create development sites, while partnering with the private sector to regenerate areas surrounding stations, creating housing and mixed-use developments that create profit to reinvest into the railway.

Through our unique railway arches and commercial estate we are one of the largest landlords for small and medium sized enterprises in the UK and in 2015/16 achieved an enviable occupancy rate of 96.02 percent. We are continuing to manage and improve our commercial estate to help revitalise inner-city locations, while working hard with our tenants to deliver an appealing mix of businesses that suit local communities and support jobs.

### **Releasing value from our estate**

In the last 12 months, we have delivered a number of development schemes providing capital to reinvest into the railway and securing commercial investment. The development and subsequent sale of Grand Central shopping centre, alongside the comprehensive redevelopment of Birmingham New Street station, has generated significant profit to reinvest back into the railway, while acting as the catalyst for an estimated £2bn in regeneration in the south of Birmingham.

We are also using our property and railway expertise to help deliver more land for much needed housing and to meet new Government Targets. In 2015/16 we released land for 1,100 homes.



## PROPERTY CONTINUED



*Grand Central Shopping Centre - Network Rail Property's development of Grand Central above Birmingham New Street Station won the BCSC Gold Award for Best New Centre and the Insider Magazine Award for Regeneration Project of the Year.*

One of our key joint ventures, Solum Regeneration, continues to deliver station-led development across the South East with three schemes complete and ten more underway, which will provide mixed-use and commercial developments, as well as up to 1,900 new homes. In June 2015, Kier Property sold their shares in Solum Regeneration to Capital & Counties Properties PLC allowing us to consider development of larger station schemes.

Our freight site portfolio continues to grow and support the wider rail freight industry. Strong demand for sites in and around London primarily for aggregates and construction related activities is helping us bring previously disused sites back into operation. Our acquisition of freight sites in 2014/15 has delivered rental revenue from the first full year of £12.9 million, and we are forecasting this to grow to £16m per annum by 2017. The purchase has also provided operational efficiencies to Network Rail.

In the last year, our total income from commercial property activities increased by eight percent to £282m and we contributed over £300m to help fund the railway.

### Moving forward

A bigger and better railway requires significant investment and Network Rail is committed to generating an extra £1.8 billion to help fund the Railway Upgrade Plan. The majority of this money is expected to come from the sale of property assets that are not essential for running the railway, allowing Network Rail to focus on its core business.

We have therefore embarked upon a comprehensive programme to examine our property assets and ways we can release value to invest in the railway.

We are now in the process of identifying what parts of our property portfolio might be suitable for sale and considering the best way to go about it. We will discuss our plans with stakeholders throughout the process to ensure their views are considered and taken into account.

To support this strategy we have set up a stand-alone property board that will oversee Network Rail Property's activities including the disposal of assets, the acceleration of our strategy to free up land for housing and our project to identify better management models for stations. It will mean that investment or asset disposal decisions can be made at the right level within the organisation in a timely way while ensuring appropriate oversight is in place.



*Happy worker, happy customer © John Wright, 2016*

## GREAT PEOPLE

**Great people make great organisations. A highly skilled workforce with high quality management will help deliver the railway the country needs. We aim to recruit and retain diverse people with the right skills, capabilities and drive to be successful. Our approach is to nurture a long-term talent pipeline through apprenticeships, graduate programmes and, to support continuous professional development.**

### Engagement

We know that fully engaged employees deliver improved business performance. We therefore work collaboratively with our managers, employees and trades union colleagues to increase the levels of engagement. Engagement is not a single activity; a wide range of actions and behaviours influence engagement levels. Some specific examples include recognition schemes and long service awards; apprenticeship schemes, graduate programmes, training, mentoring and coaching; and non-cash rewards and benefits such as childcare vouchers and discounts on products and services.

We monitor and measure engagement through a biennial employee engagement survey. Our most recent survey was conducted in autumn 2015. The overall engagement score remained constant at 73 percent (2013/14: 73 percent), while the participation rate increased to 51 percent from 46 percent in the previous survey.

### Recruiting and training the next generation

We run a world class advance engineering apprenticeship scheme which recruited 207 new apprentices in 2015/16, and a further 50 apprentices across a range of levels and programmes related to human resources, project management, and finance. Network Rail now directly employs a total of 614 apprentices on-programme, and since 2005 we have recruited over 2,300 apprentices on to our range of apprenticeship schemes. We also increased our graduate intake, recruiting 56 engineering graduates across a range of disciplines this year, which is growing to 89 in this year's intake.

We invest in the development of our people covering vocational skills, higher education, professional development and leadership to the tune of around 137,000 days of training delivered in 2015/16. We have also opened two new training centres in Basingstoke and Swindon complementing the suite of 15 training centres established around the country.

During the year the reports from the Public Accounts Committee and Nicola Shaw highlighted the need for a rail industry-wide plan to develop skills and improve diversity. We worked with teams from across the industry to support the development of the Government's Transport Infrastructure Skills Strategy, which was launched in January 2016. One of the recommendations was for 30,000 new rail apprenticeships in the years to 2020. We are planning to deliver 800 new apprenticeships a year within Network Rail and further apprenticeships within our supply chain. We are also supporting the recommendation to meet the challenge of new technologies, with a focus on developing the skills our existing workforce will require as we accelerate the delivery of the Digital Railway.

### Creating a more diverse organisation

Our diversity and inclusion strategy, 'Everyone', details our commitment to increasing these aspects of our business through our network of diversity champions, trade union equality representatives, sponsors, local programme workstream leads and six staff networks.

By creating a more open, diverse and inclusive organisation we

## GREAT PEOPLE CONTINUED

	All employees		Senior management		Board	
	2015/16	2014/15	2015/16	2014/15	2015/16	2014/15
Percentage of workforce that is female	15 %	15 %	24 %	21 %	27 %	36 %
Percentage of workforce that is Black, Asian and Minority Ethnic	7 %	6 %	9 %	10 %	0 %	0 %
Percentage of workforce that is disabled (of staff who completed the question)	3 %	3 %	N/A	N/A	N/A	N/A
Percentage of workforce that is lesbian, gay or bisexual (of staff who completed the question)	3 %	4 %	N/A	N/A	N/A	N/A

*The table above includes data where employees have declared the information. It excludes where no data is held or where the individual has preferred not to declare any information.*

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 Network Rail's understanding of our passengers' needs and the potential barriers to access.

So far, over 3,500 managers have received inclusive leadership training, and there are currently 250 diversity champions, 50 trades union 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 protect against bias.

As a result, 29 percent of Network Rail's 2015/16 graduate intake were women (up from 24 percent in 2014/15) and 31 percent were from Black, Asian or Minority Ethnic (BAME) groups (up from 18 percent). The percentage of female engineering recruits rose to 16 percent in 2015/16 (from six percent in 2014/15), while the 2015/16 percentage of BAME recruits was 44 percent (2014/15: N/A).

→ Further details on the diversity of our board and senior management can be found in the Governance section of this report on page 54.

### 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.

### Diversity impact assessments (DIA)

We have introduced diversity impact assessments, which helps us to appreciate how our programmes, projects, policies or practices affect different employees within Network Rail, our customers or line-side neighbours. We have trained over 300 employees, and we have undertaken diversity impact assessments on our flexible working policy, transparent pay policy and as part of our renewal programmes.





*Network Rail volunteers plant wildflowers at Reading Station to enhance local biodiversity*

## BEING RESPONSIBLE

**The railway is part of virtually every community in the country. In line with our devolved business structure, our Routes are becoming increasingly focused on the community and local environment. We want to address local concerns and show local benefits.**

### Environmental performance

In 2015 we published our new Environmental Policy, committing us to improving our environmental performance and leaving a sustainable environmental legacy for future generations. We are developing a new strategy that will allow us to drive this improvement in a focused and risk based way.

The rail industry is critical to a sustainable, integrated transport system. It is effective, efficient and low carbon with trains contributing a mere 2 percent of the greenhouse-gas emissions relating to domestic travel – compared with the more than 90 percent generated by cars, lorries and other road vehicles. (Guardian, August 2013)

### Environmental management

Network Rail is one of the largest land owners in Britain, managing 20,000 miles of railway and the land either side of the tracks. Our network extends to most of 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 500m of the railway) with the need to manage risk of accidents or delays caused by trees or other vegetation on the line.

### Waste management

We are not reporting Network Rail waste data for 2015/16 while a project is undertaken to implement waste data system improvements within the Infrastructure Projects business. For any waste data requirements please contact [sustainabledevelopment@networkrail.co.uk](mailto:sustainabledevelopment@networkrail.co.uk).

### Energy and carbon management

We are becoming more energy efficient and are reducing our carbon emissions in line with our commitment to reduce our carbon footprint and our energy usage.

We need a secure supply of energy to run our network reliably, safely and efficiently. This includes energy created through self-generation from renewable sources. Through better management of our energy we will play our part in delivering the UK's carbon emission reduction targets and mitigate climate change.

### Scope 1 and 2 non-traction carbon dioxide emissions

Scope 1 emissions are carbon emissions from known sources under Network Rail's operational control and cover use of natural gas, road vehicle fuel, gas oil, LPG and sulphur hexafluoride gas. Scope 2 emissions are carbon emissions generated from electricity use under Network Rail's operational control.

Energy use is translated into carbon emissions through the use of standardised emissions factors. Emissions factors used to compile this data are the most recent (2015) Government conversion factors for company reporting.

Our target is to reduce carbon dioxide equivalent (CO<sub>2</sub>e) emissions during CP5 by 11 percent against the 2013/14 CP4 exit baseline.

We are committed to reducing our carbon footprint and our energy usage. We are developing a carbon and energy efficiency strategy and plan which will set out route level targets and strategies to achieve this. The carbon emissions table on the next page sets out the network-wide targets and actual emissions in CP4 exit baseline year 2013/14, 2014/15 and 2015/16. In 2015/16 we reduced non-traction CO<sub>2</sub>e emissions by 6.4 percent compared to the previous year. This demonstrates our positive actions to reverse the increase that was reported in the first year of CP5, which was partly due to an increased reporting portfolio.

We are developing energy and carbon reduction plans with our business units in order to reduce our use of energy and therefore reduce our CO<sub>2</sub>e emissions, and have taken steps to actively encourage focus on energy reduction.

# BEING RESPONSIBLE CONTINUED

All of our carbon reporting is due to be subjected to a full review, following which the baseline, targets and performance to date may be republished.

## Carbon emissions – Network-wide

CO <sub>2</sub> emissions (tonnes)	2013/14	2014/15	2015/16	% change
Scope 1 & 2 CO <sub>2</sub> e emissions – CP5 Delivery Plan target	258,247	246,840	243,689	-1.3
Scope 1 & 2 CO <sub>2</sub> e emissions – Actual	298,450	301,378	281,987	-6.4

*Figures are different to those reported in the Annual Return 2015. This is due to emissions from our leased estate, for which we are not the main utility bill-payer, being excluded from the data reported pending a full review. The basis for previous assumptions at the end of CP4 in this area is unknown and presents a significant risk of double-counting, the assumptions of which are being re-baselined. Once the review is completed, a revised dataset will be included in the Annual Return 2017.*

## Carbon footprint reduction

Metric	Definition	Units	2013/14	2014/15	2015/16
Carbon footprint reduction*	The total carbon emissions from the electricity we procure at our manned sites.	t CO <sub>2</sub> e	-	221,320	205,286
	The total carbon emissions from the gas we procure at our manned sites.	t CO <sub>2</sub> e	-	10,305	11,299
Carbon intensity of electricity, traction and non-traction	The annual average carbon emissions factor for traction electricity we supply to train operating companies (market-based)	t CO <sub>2</sub> e / kWh	0.45	0.21	0
	The annual average carbon emissions factor for traction electricity we supply to train operating companies (location-based)	t CO <sub>2</sub> e / kWh	0.45	0.49	0.46

*\*Includes some operational supplies such as points heating and signalling supplies. 2013/14 data not available due to the reporting method changing this year.*

## Reducing embodied carbon

The annual average carbon emissions factor for traction electricity that we supply to train operators, both market-based and location-based, is reported in the carbon footprint reduction table above. Market-based results are reported according to the Greenhouse Gas (GHG) emissions reporting protocol to allow for the purchase of zero or low carbon energy. Location-based results are reported according to the GHG emissions reporting protocol as a comparator to market-based emissions and represent UK grid mix electricity.

As part of our carbon management approach we have worked with our energy supplier to ensure that for all power we do not generate ourselves, the electricity we

use is matched by an equivalent amount from a low-carbon source of generation, predominantly nuclear power. This is in line with the criteria set out by the World Resources Institute (WRI) for 'market based' calculations in its new guidance on reporting emissions and helps further demonstrate how we are committed to keeping up with global best practice in carbon management. This has contributed to the annual average carbon emissions factor for traction electricity that we supply to Train Operating Companies (TOCs) (market based) falling to zero tonnes CO<sub>2</sub>.

## Weather resilience

Our sustainable development vision is to deliver 'a railway fit for the future' and our aim is to increase the resilience of the network to weather events and future climate change impacts. Many rail assets are vulnerable to weather, a reflection of the characteristics of a nationwide transport system. Controls are in place to mitigate the impacts from weather-related events, ranging from train speed restrictions during high temperatures and high winds, for example, through to accelerated investments to improve the condition of high risk assets.

In 2014, BowTie risk assessments for each asset group were produced to provide comprehensive assessments of controls for a wide range of weather-related events, including design of new infrastructure, management of existing infrastructure, operational responses and third party actions. The risk assessments provided the foundation for the delivery of the Weather Resilience and Climate Change (WRCC) programme.

In 2015 we delivered a new weather services system to provide an extended range of services including:

- 24-hour availability of expert weather forecasters
- Display of high resolution weather forecast and live weather data
- Display of flood forecasts and river level data
- Early warnings that are triggered when forecast or live weather data increase the risk to vulnerable or critical assets.

We have implemented many actions to increase resilience to weather and extreme events, including the renewal of our drainage assets, scour protection of bridges, and the installation of high specification overhead line equipment.

The Route Weather Resilience and Climate Change Adaptation plans provide details of planned actions across the whole network and can be found on our website: [networkrail.co.uk](http://networkrail.co.uk) in 'Publications'.

## Social performance

We continued to drive positive social performance in 2015/16 with a tailored strategy focusing the broad agenda into two key themes: caring for communities and improving the passenger experience. Britain's railway not only drives economic growth, creating jobs and building communities, it directly impacts the 22 million people who live or work within 500 metres of a line, the 1.6 billion passengers a year and the more than 212,000 people who work in the rail industry.

Our community focus during 2015/16 was on our lineside neighbours. Our performance is measured by our focus on Network Rail favourability amongst lineside neighbours who experience work; at the end of 2015/16 we reached 51 percent favourability, two percent below the 53 percent target set.

## BEING RESPONSIBLE CONTINUED

### Keeping communities safe

We look to keep communities safe in a number of important ways. Through our continuing successful partnership with the Samaritans we are focusing on preventing suicides on the railway.

In 2015/16 1,137 life-saving interventions have been recorded across the industry – a 30 percent increase from last year.

This year Network Rail has also closed 76 level crossings and reduced the safety risk of four more. We continue to close crossings where possible and work to ensure communities understand the risks of unsafe crossing use.

When people get onto our tracks, there is danger to them and disruption to passengers using the rail network. Our Rail Life team educates young people on how to stay safe around our network, working with schools across the country.

### Volunteering

We encourage our staff to volunteer within local communities, allowing up to five days a year per person of volunteer time to support community engagement activities. In 2015/16, our volunteer hours invested in local communities increased by five percent. Over 29 percent of our volunteers' time was spent with projects that enabled them to be a caring neighbour, such as hospices and charities for disabled and homeless people. Network Rail volunteers also used their technical skills to support railway heritage (22 percent) and gardening, vegetation and wildlife projects to connect communities to the environment (15 percent).

### Volunteer leave

Metric	Definition	2014/15	2015/16
Volunteer leave	Total number of employees participating in volunteering	815	825
	Hours volunteer leave donated by Network Rail employees	10,997	11,512
	Monetised value* of leave donated by Network Rail employees (£s)	161,106	168,643

\* calculated from average salary rate

### Working with charities

From 2016/17 onwards, our approach to charitable giving is being revised. We now support with giving in kind (time, premises, spare advertising hoardings, etc.) rather than cash, as well as continuing our successful staff fundraising and payroll giving support. At Network Rail managed stations we supported fundraising of over £1.1m for charity through bucket collections.

In 2015/16 we contributed the equivalent of over £1.8m to our employee selected charity of choice partner, CLIC Sargent. We will be selecting a new charity partner aligned to our 'caring for communities' focus in 2016/17.

### Our supply chain

Since April 2015, Network Rail has worked directly with over 4,000 suppliers, of which 2,500 are small to medium enterprises (SMEs). Spend with our large suppliers also provided sustainable demand to many British SMEs through the extended supply chain.

Network Rail is a supplier-dependent business, with over 70 percent of our funding being spent externally.

In the first two years of Control Period 5, we have generated £14.8bn of work for our supply chain, of which £2.3bn has been with SMEs directly.

Planned enhancements and renewals expenditure in CP5 is over £25bn. We expect 99 percent of this work to be undertaken by British-based companies.

We directly employ 35,000 people but in addition, during the last 12 months, Network Rail's spend has also sustained over 89,000 full time jobs in the supply chain, many of which provide access to employment, training and apprenticeship schemes for non-technical operatives.

Our Railway Upgrade Plan is supporting the British steel industry:

1. We buy 120,000 tonnes of rail each year sourced within the UK
2. We spend over £75m on British-made steel every year
3. 96 percent of our steel rail is sourced from Greybull Capital's Scunthorpe steel plant.

### Our approach to human rights

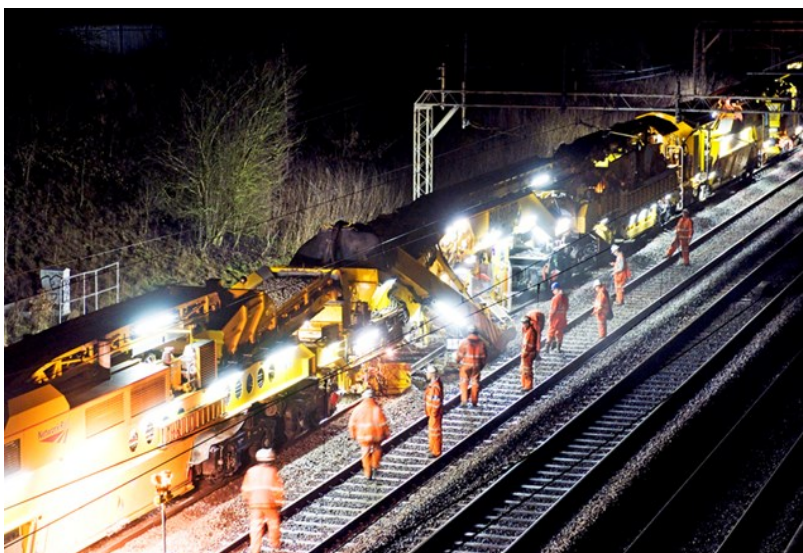
We are committed to being an ethical and responsible business. Our Code of Business Ethics is allied to our contract and procurement policies, enabling us to meet our human, environmental and social responsibilities.

Modern slavery is a crime and a violation of fundamental human rights. Network Rail has a zero-tolerance approach, which it intends to communicate to its staff, suppliers and partners in the following ways during 2016/17:

- Identify key risk areas to us and our supply chain, and respond to these with department-specific training
- Embed the zero-tolerance position in our contracts and procurement functions and our supply chain
- Provide communication and guidance to all relevant staff, to include signs of violation and processes for raising serious concerns
- To further drive sustainability and responsible business by incorporating anti-slavery into our Code of Business Ethics and other policies

A statement will be published on our website: [networkrail.co.uk](http://networkrail.co.uk) in due course.





## OUR APPROACH TO RISK MANAGEMENT

**Our assets across the country work 24 hours a day, seven days a week, to provide a safe, reliable rail network. We are committed to providing a railway infrastructure that meets the performance and safety expectations of the travelling public, operating companies and the tax payer.**

With many assets working with often extreme environmental pressures, occasionally things break down. We are committed to resolving issues quickly in order to maintain service. We are also committed to improving our assets through comprehensive enhancement and maintenance programmes. In scheduling this work we recognise the disruptive impact on both the public and our commercial customers and strive to minimise disruption to complete works as efficiently as possible.

The purpose of our Enterprise Risk Management (ERM) process is to identify and mitigate risks to the delivery of a safe, reliable and efficient service to our customers. Our ERM framework supports all areas of the business to recognise both risk and opportunity early. Early recognition of risk allows us to work collaboratively and proactively with customers, stakeholders and suppliers to manage our extensive portfolio of works better. Being better every day requires us to look at areas where we can improve our service. By careful consideration of risk we can focus on those opportunities that have the highest potential to increase efficiency and provide a better experience for our customers.

### Introduction

Across Network Rail our approach to risk management balances the risks associated with our operational environment with identifying opportunities to improve performance through careful acceptance of some risk. We recognise our status as a regulated rail network infrastructure provider and the importance of maintaining essential service provision.

We have reviewed the original risk mitigations in place to manage the costs of our enhancement and maintenance works portfolio. The three major reviews (Bowe, Hendy and Shaw) completed this year have also affected our risk landscape. Whilst the full extent of any future structural changes are yet to be understood, we will be proactive in

looking at the opportunities available and how we can effectively manage the risks.

Due to the nature of some of our principal risks and the level of uncertainty, we continually assess both the risk and the appropriateness of mitigations.

Our principal risks are outlined in the 'Key strategic risks' section on pages 38-42.

### Embedded risk management processes

We take an enterprise-wide approach to risk management and have in place an ERM framework for the identification, analysis, management and reporting of all risks to strategic objectives. The framework also takes account of operational risk and recognises the need for specialist approaches in areas such as safety, project management and information security. The use of a standard risk assessment matrix and defined risk appetite supports and enables the integration of the strategic and operational risk management approaches. Clear escalation criteria and the use of business assurance committees throughout the business provide structure, increasing visibility and challenge on the management of risks.

Whilst the ultimate responsibility for risk management rests with the board, it delegates the more detailed oversight of risk management and internal control principally to the audit and risk committee, which reports the findings of its reviews to the board.

The audit and risk committee receives regular reports from the internal auditors and independent auditor and reviews progress against agreed action plans to manage identified risks.

Detailed oversight of safety related risks is delegated to the safety, health and environment committee.

## RISK MANAGEMENT CONTINUED

### Approach to risk assessment

The ERM framework provides a standardised approach to the identification, assessment, recording and reporting of significant risks. We analyse the possible causes of a risk and assess what the impact could be if the risk were to occur. By using standard risk assessment criteria based on our performance targets we are able to have a visible link to the achievement of business objectives.

For each risk we identify current controls and their effectiveness to manage underlying causes and minimise consequences. We identify risks from a strategic view (top down) and from the operational environment (bottom up) to give better visibility of risk exposure across the business.

Monitoring risk exposure and the effectiveness of the controls in place is an ongoing part of risk assessment. The establishment of early warning indicators is one of the most recent areas of improvement activity within the framework. We have introduced visualisation boards to aid the monitoring of performance against operational targets. These boards, as part of the periodic reporting process, are also being used to track early warning indicators linked to risks.

We have also introduced further clarity around linked risks through innovative use of visualisation technology. This allows us to see the relationships between risks and analyse potential aggregated impacts or weak controls.

Through the use of defined risk appetite and our ability to see the relationships between our principal risks we can further analyse our capacity to manage risk outcomes. This also enhances our ability to make decisions on which risks require further mitigation or where we can pursue opportunity.

### Categories of risks (i.e., safety, performance, value) and who manages them

All principal risks are mapped to performance reporting and strategic objectives. The assessment of risk is informed by the performance targets and the company's risk appetite statements. Each principal risk is appointed an executive committee owner.

### Network Rail's defined risk appetite is as follows:

'Network Rail has no appetite for safety risk exposure that could result in injury or loss of life to public, passengers and workforce. Safety drives all major decisions in the organisation. All safety targets are met and improved year on year.'

'In the pursuit of its objectives, Network Rail is willing to accept, in some circumstances, risks that may result in some financial loss or exposure including a small chance of breach of the loan limit. It will not pursue additional income generating or cost saving initiatives unless returns are probable (85 percent confidence internal (CI) for income; 60 percent CI for cost where potential for cost reductions are large).'

'The company will only tolerate low to moderate gross exposure to delivery of operational performance targets including network reliability and capacity and asset condition, disaster recovery and succession planning, breakdown in information systems or information integrity.'

'The company wants to be seen as best in class and respected across industry. It will not accept any negative impact on reputation with any of its key stakeholders, and will only tolerate minimum exposure i.e. minor negative media coverage, no impact on employees, and no political impacts.'



# KEY STRATEGIC RISKS

Risk Area: Safety			
<p>Britain's railways are the safest in Europe, however we are not complacent. Network Rail continues to assess and monitor all areas of safety and continues to invest in preventive measures to keep the likelihood of safety incidents to a minimum.</p>			
Risk	Risk Owner	Current Actions	Planned
Failure to safeguard our workforce, resulting in single and/or multiple fatalities to our staff (employees and contractors).	Group director of Safety, Technical and Engineering	<ul style="list-style-type: none"> <li>Lifesaving Rules refreshed, more vigorously enforced and publication of a new driving policy</li> <li>Over 90,000 close calls reported against a target of 80,000 in 2015/16 with an average 28 day close out rate of over 50 percent.</li> <li>Successful award of new contingent labour contracts, with minimum health and safety provisions built-in to drive improvements in the supply chain</li> <li>Transport for London enlisted to Sentinel to enable the sharing of working hours and other safety critical information on one card for one railway</li> <li>Review of Work Activity Risk Assessment (WARA) and Task Risk Control Sheets to get clearer, simpler, and more effective risk assessments.</li> </ul>	<ul style="list-style-type: none"> <li>Implement an Electrical Safety Delivery Programme focusing on improved isolation methods, better test equipment, accountabilities and competence training</li> <li>Establish a fatigue risk management programme aligned to a new policy and deliver a fatigue risk tool kit for line managers</li> <li>An industry common induction is to be mandated across all Infrastructure Projects – bringing all contractors into Sentinel</li> <li>Sentinel site access will go live in June 2016</li> <li>Safer Trackside Working programme – high integrity protection and signal controlled warning technology</li> <li>Prevention through Engineering and Design (PtED) and improve awareness of the Common Safety Method (CSMREA).</li> </ul>
Failure to prevent a major avoidable train accident (for example collision or derailment) which results in multiple injury and, or, fatality to members of the public or passengers, resulting in loss of reputation, finance and reduced performance.	Managing director, England and Wales	<ul style="list-style-type: none"> <li>The top seven initiatives that will provide the greatest risk reduction by the end of Control Period 5 (CP5) have been identified</li> <li>633 point ends, 1,378 tubular stretcher bars installed</li> <li>Trials currently underway for key technology interventions such as remote monitoring for earthworks</li> <li>Implementation of route adverse weather plans</li> <li>Plain Line Pattern Recognition operational for 3,151 miles</li> <li>Targeted action at level crossings through the Level Crossing Risk Reduction Programme</li> <li>Targeted removal of lineside vegetation that could present a risk to train derailment or collision</li> <li>Working with key stakeholders to reduce railway crime, including diversionary arrangements with local communities and suppliers.</li> </ul>	<ul style="list-style-type: none"> <li>Continued roll-out of new control framework in the form of Business Critical Rules</li> <li>Implementation of drainage objectives set out in section ten of the drainage policy</li> <li>Improvements in the competency of earthworks engineers and examiners and drainage engineers</li> <li>Development of the Civils Strategic Asset Management System to provide better asset information</li> <li>Continued risk targeted investment and remediation of structures assets</li> <li>Improve Network Rail's arrangements to effectively design out safety risk (safety by design) through further embedding Construction, Design and Management regulations (CDM) 2015.</li> </ul>

Failure to have suitable and sufficient infrastructure, systems and controls in place to safeguard passengers and public at the interface with trains and the railway (excluding train accident risk), resulting in a fatal or major injury.	Group director of Safety, Technical and Engineering	<ul style="list-style-type: none"> <li>• 75 level crossings permanently closed</li> <li>• Four crossings downgraded in status.</li> <li>• 57 crossings temporarily closed, removing risk whilst permanent risk reduction measures are developed</li> <li>• Community safety strategy developed and key initiatives delivered including partnerships with Rail Life, local schools, youth groups and football league</li> <li>• Better communication with travelling public including building interaction with social media, providing photos during extreme weather; implementation of new Extreme Weather Action Team procedure.</li> </ul>	<ul style="list-style-type: none"> <li>• Closure of an additional 50 level crossings (subject to feasibility studies and liabilities negotiations)</li> <li>• Enhancements to the level crossing risk model to improve the accuracy of risk modelling and calculations of level crossing risk</li> <li>• Development of an harmonised asset strategy focussed on improving asset management, introducing modular assets and promoting technological development</li> <li>• Targeted localised campaigns</li> <li>• Further delivery of targeted projects: <ul style="list-style-type: none"> <li>- public education and engagement</li> <li>- trespass prevention</li> <li>- suicide prevention</li> <li>- level crossings risk reduction programme</li> <li>- novel level crossing technology</li> <li>- Platform Train Interface.</li> </ul> </li> </ul>
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**Risk Area: Value**

Following reclassification and the subsequent reviews, a number of new controls have been introduced. Early indication is that risks are decreasing in this area and are being maintained within tolerable levels.

Failing to maintain and secure funding that is consistent with outputs and, or, following a corporate strategy that is incongruous with the aspirations of our customers and stakeholders.	Chief financial officer	<ul style="list-style-type: none"> <li>• Route milestone plans and glide paths linked to the corporate dashboard</li> <li>• Network Operations business performance review and visualisation boards</li> <li>• Restructuring of major change programmes with defined benefits and milestone tracking</li> <li>• Non-core asset (including property) disposal strategy developed and external advisors appointed for some asset workstreams</li> <li>• Control Period 6 (CP6) Programme Board introduced</li> <li>• Development of a cross industry engagement forum for Digital Railway</li> <li>• Introduction of Digital Railway Investment Panel.</li> </ul>	<ul style="list-style-type: none"> <li>• Further devolution to the Routes to better align operations with customer requirements</li> <li>• Major review of central services to drive further efficiencies</li> <li>• Subject to final approval, marketing of non-core assets will commence – (predicting to receive some initial receipts)</li> <li>• Improved costing process defined, agreed and communicated</li> <li>• Uncertainty analysis introduced to address issues arising out of inability to robustly forecast CP5 exit positions</li> <li>• Develop Digital Railway commercial strategy and set up the Digital Railway group strategy forum.</li> </ul>
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**Risk Area: Performance**

Likelihood of severe impact such as high staff turnover remains low. However for certain key roles attracting and retaining people with the right skills is challenging. We will continue to have periods of change which will be unsettling. We continue to work closely with staff and unions to manage any adverse impact.

Likelihood of long term-impact from any business interruption is low. However, changes in operations over the next five years will add risk. By investing in business continuity planning, information security and cyber security likelihood will remain within acceptable limits.

New controls and governance arrangements on delivery of our extensive enhancement and renewals portfolios have successfully reduced delivery risks. Over the last 12 months there have been no major possession overruns. Risks around delivery of the renewals volumes are high reducing likelihood in this area will remain a key priority.

Managing train performance to meet ORR targets remains challenging with likelihood remaining high. Mitigations in this area remain a priority over the next 12 months.

<p>Failing to attract, retain and develop the full potential of our pipeline of talent for key roles; resulting in sub-optimal leadership capability, worse business outcomes and a compromise of our ability to deliver a better railway for a better Britain.</p>	<p>Group Human Resources director</p>	<ul style="list-style-type: none"> <li>• Cohort 2 of Accelerated Leaders Programme (ALP) completed and selection for cohort 3 commenced</li> <li>• Further developed graduate attraction campaign launched with increased diversity</li> <li>• Focussed and regular reporting of succession for key roles through People Executive Review Meeting (PERM)</li> <li>• Focussing on diversity especially attracting women into Science, Technology, Engineering and Mathematics (STEM) roles</li> <li>• People manager consultation complete</li> <li>• Developing relationships with external stakeholders to support talent development through secondments – industry secondment process implemented.</li> </ul>	<ul style="list-style-type: none"> <li>• Build people manager capability through great people manager programme</li> <li>• Third cohort of ALP</li> <li>• Strategic Workforce Planning (SWP) planned to be piloted in selected routes</li> <li>• One stop shop Early Engagement on the staff intranet 'Connect'</li> <li>• Succession planning policy</li> <li>• Human resources upskilling workshops to enable talent management to be embedded across Network Rail.</li> </ul>
<p>Failing to secure employee and trade union support for our forward change agenda.</p>	<p>Group Human Resources director</p>	<ul style="list-style-type: none"> <li>• Providing trade unions with better visibility of major change programmes to allow better forward planning</li> <li>• Constructive engagement with trade unions through established national and area councils.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to engage trade unions' visibility of major change programmes</li> <li>• Build a detailed communication strategy explaining the "why" and the "what".</li> </ul>

Failure to recover from a business interruption to pre-defined output levels and within agreed recovery timescales.	Managing director, England and Wales	<ul style="list-style-type: none"> <li>• Identification of critical assets across the group and the completion of Business Impact Analysis (BIA)</li> <li>• Development of programme to deliver business continuity management framework across the business</li> <li>• Implementation of cyber security awareness programmes, training and development</li> <li>• Establishing the cyber security governance structure</li> <li>• Weather Resilience and Climate Change Programme board to continually assess vulnerability of assets.</li> </ul>	<ul style="list-style-type: none"> <li>• Increased focus on improvement of incident management processes and procedures</li> <li>• Completion of tactical BIAs within Routes and supporting functions</li> <li>• Completion of business continuity plans in routes</li> <li>• Further strategic and tactical investment to provide a more resilient network and systems landscape that will perform effectively under increased stress.</li> </ul>
Unable to achieve passenger and train operating companies' and freight operating companies' performance expectations for CP5.	Managing director, England and Wales	<ul style="list-style-type: none"> <li>• New performance strategies developed collaboratively with Routes and train operators with quarterly reviews to maintain alignment and relevance between the input plans and performance outputs</li> <li>• Timetable Rules Improvement Programme to focus on improving the timetable and unlocking further operational performance</li> <li>• Development of specific station level improvement plans to neutralise the increasing impact of passenger crowding with closer working with British Transport Police (BTP)</li> <li>• Strengthening of monitoring and delivery of engineering work to reduce performance impact of overruns</li> <li>• Delivery of Business Critical Rules, Risk Based Maintenance and Remote Condition Monitoring programmes</li> <li>• Asset management plans underpinning the Composite Reliability Index and supporting a reduction in failures affecting the Public Performance Measure (PPM).</li> </ul>	<ul style="list-style-type: none"> <li>• National Joint Disruption Taskforce to strengthen service recovery and contingency plans: working with British Transport Police (BTP) and improved systems and processes for controls</li> <li>• Generation of new 'scorecards' to focus on key issues in each business area and the Route targets within them</li> <li>• Performance strategies developed collaboratively by Routes and train operators</li> <li>• Focus on delivery of improvement in London South East performance</li> <li>• 'Deep Dives' on key areas of performance impact</li> <li>• Work to understand the impact of increasing passenger growth and action to mitigate any risk to performance</li> <li>• Delivery of Risk Based Maintenance and further roll out of On Train Infrastructure Monitoring and Remote Condition Monitoring programmes.</li> </ul>



Failure to deliver the enhancement portfolio to time and cost.	Managing director, Infrastructure Projects	<ul style="list-style-type: none"> <li>• Completion of the Deliverability Review to understand the deliverability of the enhancement portfolio and conduct prioritisation as required</li> <li>• Development of the Enhancement Improvement Programme to focus on areas requiring performance improvements</li> <li>• Completion of the re-baselining activities on major programmes, including Great Western Route Modernisation (GWRM) to align with internal and external changes</li> <li>• Improvement in the integrated planning and critical resources management</li> <li>• Increased focus on delivery of governance adherence and assurance.</li> </ul>	<ul style="list-style-type: none"> <li>• Reprioritisation, rationalisation and the delivery of Infrastructure Projects change programme; focus on the delivery of Infrastructure Projects strategic objectives and enterprise risks</li> <li>• Continued delivery of the Enhancement Improvement Programme</li> <li>• Implementation of additional assurance process (first and second line) including peer reviews</li> <li>• Continued focus on capability development.</li> </ul>
Failure to deliver the renewals portfolio to time and cost.	Managing director, Infrastructure Projects	<ul style="list-style-type: none"> <li>• Development of Route efficiency plans</li> <li>• Increased monitoring and reporting against milestones and early warning indicators</li> <li>• Improved governance across the programme including Programme board, Assurance panel and Route Track Governance panels</li> <li>• Providing visibility of the performance of Road Rail Vehicles with supporting improvement action plans</li> <li>• Introduction of an improved planning process (GRIP 4 Track) throughout the project life cycle.</li> </ul>	<ul style="list-style-type: none"> <li>• Embedment of GRIP 4 Track across all elements of the programme</li> <li>• Improvements in providing engineering haulage to site on time</li> <li>• Understanding various access regimes and impact on cost.</li> </ul>

## Viability statement

The board assesses the prospects of the group over a longer period than the 12 months required by the going concern requirements of the UK Corporate Governance Code. This longer-term assessment process supports the board's statements on both viability, as set out below, and going concern, made on page 85.

Network Rail is funded in five-year blocks called control periods. The Office of Rail and Road (ORR) determines charges and outputs before the start of each five-year period. This allows Network Rail a high degree of certainty with regard to funding for its operations and investment activities.

The regulatory process towards setting charges and outputs allows stakeholders to define their required outputs from the network, and governments in Westminster and Holyrood to set out the funding they have available. These are built into Network Rail's strategic business plan. Once the ORR has determined outputs and charges, Network Rail produces a Delivery Plan. This plan is refreshed by bottom up forecasts on a quarterly basis in order to manage outputs within the resources available.

Network Rail has secured a £30.875bn loan facility with the Department for Transport, which it intends to draw upon to specifically support its investment activities in the period to March 2019. This facility remains within its parameters. Due to the existence of legacy bonds in issue under the debt issuance programme, Network Rail is also investigating various methods of increasing funds available for further enhancements to the railway network including potential disposal of non-core assets.

The business plans and financial models are used to project cash flows and monitor financial risks and liquidity positions, forecast future funding requirements and other key financial ratios, including those relevant to our network licence. Analysis is undertaken to understand the resilience of the group and its business model to the potential impact of the group's principal risks, or a combination of those risks. This analysis takes account of the availability and effectiveness of the mitigating actions that could realistically be taken to avoid or reduce the impact or occurrence of the underlying risks. In considering the likely effectiveness of such actions, the conclusions of the board's regular monitoring and review of risk management and internal control systems, as described on pages 36-37, is taken into account.

The period over which the board considers it possible to form a reasonable expectation as to the group's longer-term viability, based on current detailed business plans, is the three-year period to March 2019. This period reflects the period used for the group's business plans and has been selected because, together with the planning process set out above, it gives management and the board sufficient, realistic visibility on the future in the context of the required outputs and funding available. The board has considered whether it is aware of any specific relevant factors beyond the three-year horizon and confirmed that there are none.

The board confirms that its assessment of the principal risks facing the group, including those that would threaten its business model, future performance, solvency and/or liquidity, and which are set out in the Key Strategic Risks section on pages 38-42 was robust.

On the basis of this robust assessment of the principal risks facing the group and on the assumption that they are managed or mitigated in the ways disclosed, the board's review of the business plan and other matters considered and reviewed during the year, and the results of the sensitivity analysis undertaken and described above, the board has a reasonable expectation that Network Rail will be able to continue in operation and meet its liabilities as they fall due over the period to March 2019.

## Directors' approval statement

The strategic report has been signed on behalf of the board of the company.



**Sir Peter Hendy, CBE**  
Chair

30 June 2016

# CORPORATE GOVERNANCE REPORT

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# OUR BOARD OF DIRECTORS



**Sir Peter Hendy, CBE**  
Chair (63)

Appointed to the board: 2015

## Skills and experience

Sir Peter was previously Commissioner of Transport for London (TfL) from 2006 to 2015, having served since 2001 as TfL's managing director of Surface Transport. He led, and played a key role in preparing for, the successful operation of London's transport for the 2012 Olympic and Paralympic Games. He was formerly deputy director UK Bus for FirstGroup plc and previously managing director of CentreWest London Buses. Sir Peter was formerly president of the International Association of Public Transport (UITP). He started his career in 1975 as a London Transport graduate trainee. Sir Peter's experience in successfully leading urban transport in a world city is critical to understanding Network Rail and managing its complex relationships with stakeholders.

Sir Peter is vice president of the Chartered Institute of Logistics and Transport, a fellow of the Chartered Institute of Highways and Transport and a fellow of the Institution of Civil Engineers. He was knighted in the 2013 New Year's Honours List, having been made CBE in 2006 for services to public transport and the community in London.

## Current external appointments

Chair of London Freight Enforcement Partnership; Trustee of the London's Transport Museum; London Bus Museum.

## Committee membership

Safety, health and environment committee; nomination committee; remuneration committee.

**Mark Carne**  
Chief executive (57)

Appointed to the board: 2014

## Skills and experience

Mark was formerly executive vice president for Royal Dutch Shell plc in the Middle East and North Africa, responsible for the company's business in a vital but volatile region at a time of significant political change. Before taking on that role he was executive vice president and managing director for BG Group plc in Europe and Central Asia. Mark joined BG from Shell where he worked in a variety of roles during a 21-year period – including responsibility for Shell's oil and gas platforms in the North Sea and as managing director for Brunei Shell Petroleum.

Mark is a fellow of the Institution of Mechanical Engineers.

## Current external appointments

Independent governor of Falmouth University.

**Jeremy Westlake**  
Chief financial officer (50)

Appointed to the board: 2016

## Skills and experience

Jeremy was formerly senior vice president for Alstom Transport in France, responsible for strategy building, investor management, financial structuring and corporate reporting. Previously he spent 14 years at Rolls-Royce in a range of senior finance and supply chain roles in the UK and the United States.

Jeremy is a fellow of the Institute of Chartered Accountants in England and Wales and has a master's in manufacturing from Cambridge University.



## BOARD OF DIRECTORS CONTINUED



### Rob Brighthouse

Non-executive director (58)

Appointed to the board: 2016

#### Skills and experience

Rob has 40-years' experience in the rail industry and was formerly managing director of Chiltern Railways where he was responsible for the operation and safety of the passenger rail service between London and the West Midlands. Rob first joined the rail operator in 2000 as projects director, where he led the Evergreen 1 and 2 infrastructure projects and also the building of Chiltern's Wembley depot. Rob brings rail industry experience to the board and understands the complexities facing the train operating companies.

Rob is a fellow of the Institution of Civil Engineers and the Institute of Directors and is a chartered director. Rob holds a master's degree in business administration from Aston Business School.

#### Current external appointments

Non-executive director of Motionhouse Dance Theatre; honorary trustee of LIFE Trust; member of the advisory board at Aston Business School.

#### Committee membership

Safety, health and environment committee; audit and risk committee; treasury committee.

### Malcolm Brinded, CBE

Non-executive director (63)

Appointed to the board: 2010

#### Skills and experience

Malcolm had a 37-year career at Royal Dutch Shell plc, where he served ten years on the main board, latterly as executive director responsible for Upstream International and prior to that for global Exploration and Production. Previously he was chair of Shell UK. Malcolm brings extensive engineering experience to the board, particularly in the fields of safety and major project delivery, two of the board's key strategic focus areas.

Malcolm is a fellow of the Institutions of Civil and Mechanical Engineers and of the Royal Academy of Engineering. He has honorary doctorates from Aberdeen and Robert Gordon Universities. Malcolm has been awarded a CBE for his services to the UK oil and gas industry.

#### Current external appointments

Non-executive director of CH2M Hill, Inc and BHP Billiton Plc; chair of the Shell Foundation; vice president of the Energy Institute.

#### Committee membership

Chair of safety, health and environment committee.

### Richard Brown, CBE

Special director and non-executive director (63)

Appointed to the board: 2015

#### Skills and experience

Richard was chief executive of Eurostar UK from 2002 to 2011, and the chair until June 2013. He was previously commercial director and main board member of National Express Group plc, where he set up its trains division, at the time the largest UK passenger franchise operator. Richard has 39 years' experience in the rail industry and was a director of Intercity before privatisation. Richard brings wide experience of planning and operating railways.

Richard has honorary doctorates from the Universities of Derby and Westminster. He was appointed CBE in 2007 for services to transport.

#### Current external appointments

Non-executive director at the Department for Transport; chair of Catalyst Housing Limited; deputy chair of HS2 Ltd; vice president of the Chartered Institute of Logistics and Transport.

#### Committee membership

Nomination committee; remuneration committee.

## BOARD OF DIRECTORS CONTINUED



### Sharon Flood

Non-executive director (51)

Appointed to the board: 2014

#### Skills and experience

Sharon has experience in a number of senior finance and strategy roles, most recently as a group chief financial officer of Sun European Partners LLP, an international private equity investment advisory firm. From 2005 to 2010 she was finance director of John Lewis department stores. Sharon therefore strengthens the finance experience and customer focus on the board.

Sharon holds a master's degree in business administration from INSEAD and is a fellow of the Chartered Institute of Management Accountants.

#### Current external appointments

Non-executive director of Crest Nicholson Holdings plc; trustee of the Science Museum Group; présidente du conseil de surveillance of S.T. Dupont.

#### Committee membership

Audit and risk committee; treasury committee; remuneration committee.



### Chris Gibb

Non-executive director (52)

Appointed to the board: 2013

#### Skills and experience

Chris has worked in the rail industry for 35 years. After a career of operational roles in England, Scotland and Wales he became managing director, Wales and Borders Trains. He joined Virgin Trains as managing director, CrossCountry, before becoming chief operating officer in 2007, responsible for Virgin's West Coast safety, operations, stations and customer service. He retired from this role in November 2013. Chris brings broad industry-specific experience to the board.

Chris is a visiting lecturer at Birmingham University.

#### Current external appointments

Member of Transport Strategic Advisory board, Welsh Assembly; adviser, Texas Central Railway.

#### Committee membership

Safety, health and environment committee; remuneration committee.



### Janis Kong, OBE

Non-executive director and senior independent director (65)

Appointed to the board: 2010

#### Skills and experience

Janis' executive management experience has been formed through a 33-year career with BAA, during which she held a number of senior operational roles including being a director of BAA Plc and chair of both Heathrow Airport Ltd and Heathrow Express. Prior to that she was managing director of Gatwick Airport. Janis' experience in airport delivery, alongside non-executive directorships in listed corporates brings commercial experience to the board.

Janis has an honorary doctorate from the Open University and has been awarded an OBE for her services to transport and regional development.

#### Current external appointments

Non-executive director of Portmeirion Group PLC, TUI AG, Copenhagen Airports A/S and Bristol Airports Ltd.

#### Committee membership

Audit and risk committee; chair of nomination committee.

## BOARD OF DIRECTORS CONTINUED



### Michael O'Higgins

Non-executive director (61)

Appointed to the board: 2012

#### Skills and experience

Michael has significant public sector and commercial experience. Michael has been chair of the Pensions Regulator, the NHS Confederation and the Audit Commission, managing partner at PA Consulting Group and a partner at PriceWaterhouse. He was also chair of Centrepont, the youth homelessness charity. Until recently Michael was a non-executive director and chair of audit at HM Treasury. He has held visiting academic appointments at the London School of Economics, the Australian National University and Harvard University. The board recognises that Network Rail's people are its major asset, and Michael brings his experience in this area and also of government relations to the board.

#### Current external appointments

Chair of Local Pensions Partnerships and Calculus VcT plc; member of advisory board of Liaison Financial Services Limited and JustAccounts Limited.

#### Committee membership

Nomination committee; chair of remuneration committee.



### Bridget Rosewell, OBE

Non-executive director (64)

Appointed to the board: 2011

#### Skills and experience

Bridget is an economist by background and senior adviser of Volterra producing economic analysis across a range of sectors, especially for major infrastructure projects. Past roles have included being chief economist and chief economic adviser to the Greater London Authority and executive chair of Business Strategies Ltd, which was subsequently sold to Experian. She has chaired Audit and Risk Committees for the DWP, Britannia Building Society and Ulster Bank. She is Chair of Audit for Atom Bank and a commissioner for the National Infrastructure Commission. Bridget brings financial and economic expertise to the board.

Bridget was awarded an OBE in 2013 for her services to the economy and is a Fellow of the Institution of Civil Engineers.

#### Current external appointments

Senior adviser of Volterra; non-executive director of Atom Bank; member of The Royal London Mutual Insurance Society Ltd's With Profits Committee.

#### Committee membership

Chair of audit and risk committee; chair of treasury committee.



### Suzanne Wise

Group general counsel and company secretary

#### Skills and experience

Suzanne is responsible for the Legal, Corporate and Commercial function and is a member of the group executive. Suzanne has extensive in-house legal and corporate governance experience gained within the listed environment having joined the company from Premier Foods plc where she held the position of general counsel and company secretary. Prior to Premier Foods plc she was group head of Legal at Gallaher Group plc. In her early career she was a solicitor in private practice.

Richard Parry-Jones stepped down as chair on 15 July 2015.

Paul Plummer stepped down as group strategy director on 1 November 2015.

Patrick Butcher stepped down as group finance director on 24 February 2016.



# CORPORATE GOVERNANCE REPORT

Effective corporate governance is an essential component for successful management of the company and for the devolved route businesses.

Following the reclassification of Network Rail as an arms-length government body in September 2014, the key governance changes impacting Network Rail during 2015/16 were:

- The establishment of the critical infrastructure projects delivery committee (CIPD) and the major projects delivery committee (MPDC) in January 2015
- The Secretary of State for Transport's (SoS) abolition of Network Rail's public members from 1 July 2015.

The SoS is Network Rail's sole member and has special powers in its role as 'special member'. Those powers are summarised on page 56, together with a note of how those powers have been exercised during the year.

## CIPD and MPDC

The CIPD was established to review and assure the board on the delivery of critical infrastructure projects in the lead up to Easter 2015 under Janis Kong's leadership, and then the Christmas and New Year 2015/16 period. It met 11 times during 2015/16 and has since been disbanded in its formal capacity, although members of the board and executive management have continued the practice of reviewing major programmes of enhancement works over the bank holiday periods.

The MPDC was established to review the methodology and processes for defining the scope of major projects. This included the cost estimation and delivery processes and performance, as well as the process by which project funding was sought and approved and how performance was monitored and communicated internally and externally. It met 18 times during 2015/16. The committee, whilst no longer led by Malcolm Brinded, continues to meet quarterly under the leadership of Francis Paonessa, managing director, Infrastructure Projects. Non-executive directors continue to attend meetings in an advisory capacity and to provide independent challenge.

## The removal of public members

During the period 1 April to 30 June 2015 the public members met four times, undertook one site visit and published their

periodic report on their activities.

On 25 June 2015 the SoS announced his intention to exercise one of his powers as Special Member, the removal of public members from Network Rail's governance structure. This resulted in the SoS becoming the sole member of Network Rail.

## The Network Rail board

During 2015/16, the board focused much of its time on:

- The Control Period 5 (CP5) programme of enhancement works and its funding
- Enhancements improvement plan
- The Bowe, Hendy and Shaw reviews
- Safety performance.

During 2016/17 it is anticipated that the board's focus will be on:

- Safety
- Operational and financial performance
- The introduction of third-party funding into the business, particularly with regard to enhancements
- Oversight of the disposal of non-core property assets
- Developing the initial industry advice submission for control period 6 (2019-2024)
- Further implementing devolution, better project governance and other outcomes of the Bowe, Hendy and Shaw reports.

In summary, 2016/17 promises to be another busy and challenging year for Network Rail. I very much look forward to working with my board colleagues, the wider employee network and our many customers on making it a success.

Sir Peter Hendy, CBE  
Chair

30 June 2016

→ More information on the Bowe, Hendy and Shaw reports can be found on the Network Rail website at: [networkrail.co.uk](http://networkrail.co.uk)



## CORPORATE GOVERNANCE REPORT CONTINUED

### Compliance with corporate governance requirements

The board considers that the company has complied with the UK Corporate Governance Code 2014 (Code) throughout the year, other than the provisions it cannot comply with, which include:

- B.2.4, B.3.1 in relation to the appointment of the chair. The chair's appointment is a decision made by the SoS in accordance with the Commissioner for Public Appointments' principles. All other elements of this provision are complied with.
- C.3.2, C.3.7, C.3.8 in respect to the appointment, re-appointment and removal of the independent auditor. Under the terms of the Framework Agreement, between the company and DfT, the National Audit Office acts as the Comptroller and Auditor General and independent auditor of the company. All other elements of these provisions are complied with (where applicable).
- D.2.2 under the terms of the Framework Agreement between the company and DfT, the remuneration of the chair is agreed by the SoS.

The main headings below follow those set out in the Code.

In addition, the board is mindful of compliance with the Corporate Governance in Central Government Departments: Code of Good Practice (Government Code).

### Leadership and effectiveness

As an arm's length government body, Network Rail retains the commercial and operational freedom to manage Britain's railway infrastructure within effective regulatory and control frameworks. The board is accountable to the SoS.

A Framework Agreement between the company and the DfT outlines this relationship in terms of financial management and corporate governance. Whilst the Framework Agreement is applicable to the whole of the network, additional arrangements are in place with the Scottish Government on delivery of specified outputs on the Scottish railway network. The Framework Agreement is available on the Network Rail website: [networkrail.co.uk](http://networkrail.co.uk)

### The board's strategy

Network Rail works with the DfT and the Office of Rail and Road (ORR) to agree what Network Rail must deliver during each five year control period, and the amount of money available for Network Rail to deliver its commitments.

The board is responsible for establishing the strategy to deliver the outcomes required in each control period and that appropriate human and financial resources are in place.

In setting the strategy, and monitoring progress towards delivering it, the board is also responsible for approving the group's risk management strategy (including the internal control policy and other major corporate policies, for example, health and safety).

### The board's remit

The board is mindful of the Code of Conduct for Board Members of Public Bodies, the Seven Nolan Principles of Public Life, the Civil Service Code and the importance of value for money in its decision making process.

### The Seven Nolan Principles of Public Life

#### 1 Selflessness

Holders of public office should act solely in terms of the public interest.

#### 2 Integrity

Holders of public office must avoid placing themselves under any obligation to people or organisations that might try inappropriately to influence them in their work. They should not act or take decisions in order to gain financial or other material benefits for themselves, their family, or their friends. They must declare and resolve any interests and relationships.

#### 3 Objectivity

Holders of public office must act and take decisions impartially, fairly and on merit, using the best evidence and without discrimination or bias.

#### 4 Accountability

Holders of public office are accountable to the public for their decisions and actions and must submit themselves to the scrutiny necessary to ensure this.

#### 5 Openness

Holders of public office should act and take decisions in an open and transparent manner. Information should not be withheld from the public unless there are clear and lawful reasons for so doing.

#### 6 Honesty

Holders of public office should be truthful.

#### 7 Leadership

Holders of public office should exhibit these principles in their own behaviour. They should actively promote and robustly support the principles and be willing to challenge poor behaviour wherever it occurs.

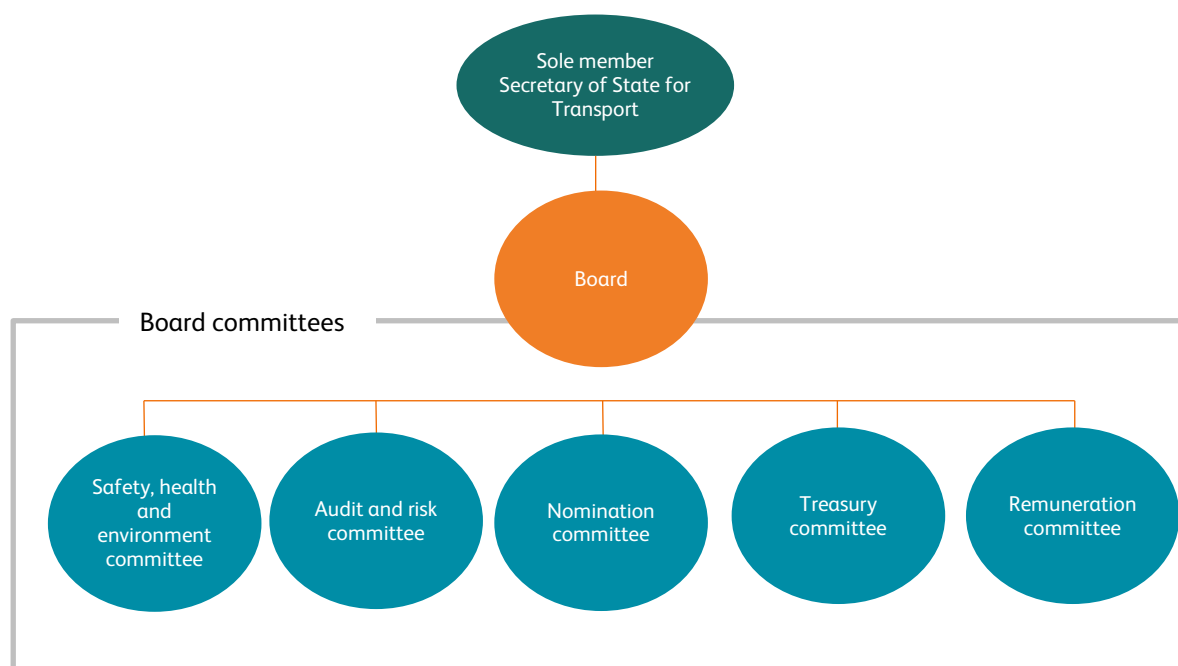
The remit of the board is set out in the Matters Reserved for the Board document. This document is regularly reviewed by the board. There are a number of items that only the board may decide upon.

Examples of such matters include:

- The group's overall strategy and key performance indicators
- The annual and half-yearly financial statements of the group and company
- Material changes to the network licence
- Key pension matters
- Adequacy of internal control systems
- Major capital investments and expenditure
- Risk management strategy
- The appointment and removal of executive directors and the company secretary.

# CORPORATE GOVERNANCE REPORT CONTINUED

## Network Rail board and committee structure

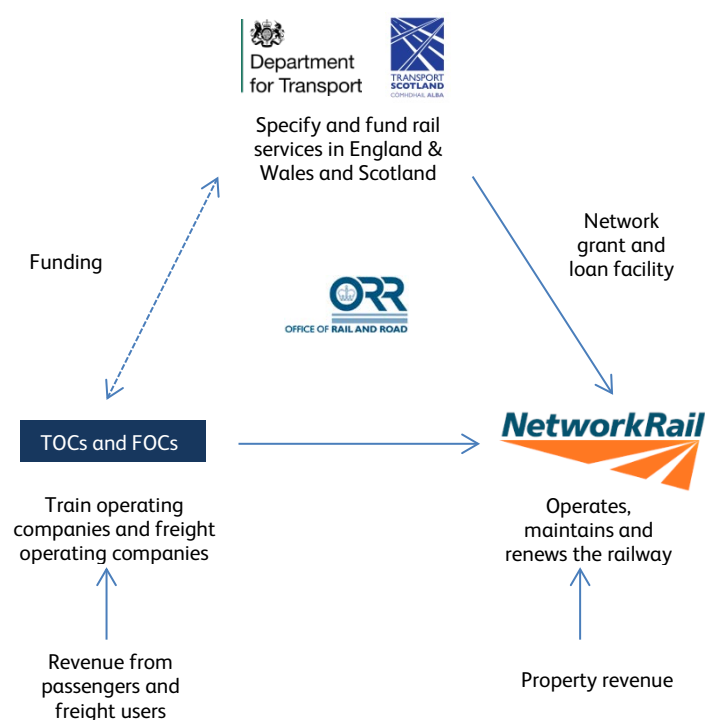


The matters reserved for the Board document can be found on the Network Rail website: [networkrail.co.uk](http://networkrail.co.uk)

There are also a number of powers that the board has delegated to its committees, and those delegated powers are set out in committee terms of reference and also the delegation of authorities policy. Committee terms of reference are available on the Network Rail website.

➔ As part of Network Rail's transparency commitment, minutes of the company's board meetings are provided to the SoS, and are available on the Network Rail website: [networkrail.co.uk](http://networkrail.co.uk)

## Network Rail's relationship with the DfT and ORR



## Board composition

During the year the following board changes occurred:

**Appointments:** Richard Brown was appointed by the SoS to act as the company's special director on 1 July 2015. Sir Peter Hendy was appointed as chair of the board with effect from 16 July 2015. Rob Brighthouse was appointed a non-executive director on 1 January 2016. Jeremy Westlake was appointed as the company's chief financial officer on 24 February 2016.

**Resignations:** Richard Parry-Jones stepped down as chair of the board on 15 July 2015. Paul Plummer, group strategy director, resigned on 1 November 2015, and Patrick Butcher, group finance director, resigned on 24 February 2016.

Information on the recruitment and induction processes for the directors appointed during the year can be found in the nomination committee report on page 64-65.

At the date of this report, the board consisted of one non-executive chair, two executive directors and eight non-executive directors.

➔ Photographs and biographies of the board setting out their skills and experience can be found on pages 45-48.

## CORPORATE GOVERNANCE REPORT CONTINUED

### Attendance at meetings

The board typically meets nine times each year, and did so during 2015/16. Two off-site strategy meetings were also held.

Directors' attendance at board meetings is referenced in the table below. Non-executive directors are also required to attend various committee meetings, and their attendance is indicated in the board committee reports on pages 57-83.

### Board meeting attendance for the year ending 31 March 2016

	TOTAL
Rob Brighthouse <sup>1</sup>	3/3
Malcolm Brinded	8/9
Richard Brown <sup>2</sup>	7/7
Patrick Butcher <sup>3</sup>	8/8
Mark Carne	9/9
Sharon Flood	8/9
Chris Gibb	9/9
Sir Peter Hendy <sup>4</sup>	6/6
Janis Kong	9/9
Michael O'Higgins	8/9
Richard Parry-Jones <sup>5</sup>	3/3
Paul Plummer <sup>6</sup>	4/5
Bridget Rosewell	9/9
Jeremy Westlake <sup>7</sup>	2/2

<sup>1</sup> Rob Brighthouse was appointed to the board on 1 January 2016.

<sup>2</sup> Richard Brown was appointed to the board on 1 July 2015.

<sup>3</sup> Patrick Butcher stepped down from the board on 24 February 2016.

<sup>4</sup> Sir Peter Hendy was appointed to the board on 16 July 2015.

<sup>5</sup> Richard Parry-Jones stepped down from the board on 15 July 2015.

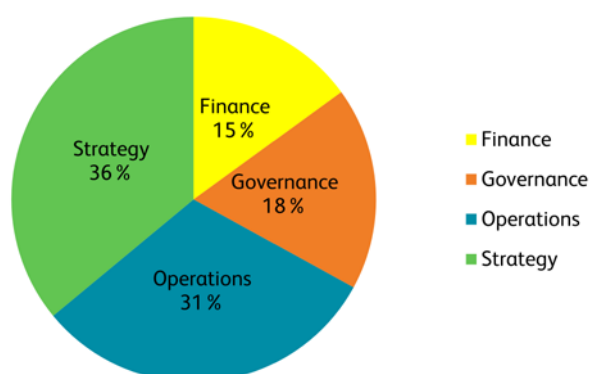
<sup>6</sup> Paul Plummer stepped down from the board on 1 November 2015.

<sup>7</sup> Jeremy Westlake was appointed to the board on 24 February 2016.

### Board time allocation

The chart below shows how the board allocated its time during meetings:

### Board allocation of time for the year ending 31 March 2016



### Election and re-election of directors

All the directors are subject to election or re-election at the 2016 AGM. All directors act in good faith, for the long-term benefit of Network Rail and continue to perform effectively and demonstrate commitment to their respective roles.

### Directors' conflicts of interest

Directors have a continuing obligation to update the board immediately on any changes to their potential or actual conflicts of interest.

Relevant disclosure is considered at the beginning of each board meeting and directors are also required to complete an annual disclosure of interests using a questionnaire. Where a director has a potential or actual conflict of interest, procedures are in place to prevent the director from being involved in any decision-making process in relation to that interest. At the date of this report, there were no conflicts of interest.

It is appropriate to disclose that:

- The reimbursement of expenses and cost of secretarial services for Richard Parry-Jones was made by payment (for the 2015/16 part year) of £9,379.99 (2014/15: £33,732.22) to RPJ Consulting Services Limited in which he has a material interest
- Richard Brown is deputy chair and a non-executive director of HS2 Limited and is a non-executive director of the DfT.

### Directors' and officers' liability insurance

Network Rail maintains directors' and officers' liability insurance which provides appropriate cover for legal action brought against directors. Network Rail did not have to indemnify any directors during 2015/16.

### Role of the chair

Sir Peter Hendy leads the board and is responsible for its effective functioning and promoting the highest standards of corporate governance. As chair, Sir Peter encourages all directors to actively contribute to board meetings and sets the conditions for constructive relations between the executive and non-executive directors. He represents Network Rail at its highest level and works with Mark Carne, the chief executive, to develop strategic relationships with the customers of Network Rail, DfT, Her Majesty's Treasury, Parliament, the Cabinet Office, Transport Scotland, Welsh Assembly Government and other stakeholders.

### The chair's commitment

The chair's contractual commitment to Network Rail is four days per week. Sir Peter Hendy has confirmed that his other activities can be achieved without detriment to his duties to Network Rail.

### Role of the chief executive

Mark Carne's role as chief executive is to lead and manage. He keeps the board informed as to Network Rail's performance and brings to its attention all matters that materially affect, or are capable of materially affecting, the achievement of Network Rail's strategy.

## CORPORATE GOVERNANCE REPORT CONTINUED

The chief executive provides clear and visible leadership in business conduct and promotes the requirement that all executive committee members and employees are exemplars of the company's values.

Mark Carne is accountable to the board for all elements of Network Rail's business, and specifically for safety performance. Additionally, he is the accounting officer, see below table.

### Managing Public Money – accounting officer

Mark Carne, as chief executive, is Network Rail's accounting officer. In this role, he is personally accountable to parliament for safeguarding the public funds available to Network Rail, for ensuring propriety, regularity, value for money and feasibility in the handling of those public funds, and for the day-to-day operations and management of Network Rail. In addition, he is required to ensure that Network Rail is run following the principles, rules, guidance and advice set out in Managing Public Money.

Additional responsibilities of the accounting officer, as set out in Managing Public Money, include:

- Signing the accounts, the annual report and the governance statement
- Ensuring regularity and propriety, affordability and sustainability, value for money, control, management of opportunity and risk, learning from experience and accounting accurately for the organisation's financial position.

The board supports Mark Carne in his position as accounting officer, for the discharge of his obligation in Managing Public Money, for the proper conduct of business and maintenance of ethical standards.

### Internal audit guidance

The accounting officer is supported by Network Rail's internal audit function. The director of Risk and Assurance provided his audit opinion to both Mark Carne, in his position as accounting officer, and the audit and risk committee. The opinion detailed the overall adequacy and effectiveness of Network Rail's framework of governance, risk management and control.

### Role of the chief financial officer

Jeremy Westlake, the chief financial officer, is responsible for leading Network Rail's finance function which includes treasury, internal audit and risk, planning and regulation and long-term planning and funding.

### The executive committee

An executive committee comprising the chief executive, the chief financial officer and ten other senior executives is responsible for the day-to-day management of the company. The committee meets on a regular basis to consider strategic and operational matters. The committee's responsibilities include:

- Executing the objectives and strategy approved by the board
- Approval of contracts up to a financial value of £750m
- Providing leadership on safety, health and environment matters
- Reviewing the organisation structure of Network Rail
- Establishing and monitoring control and co-ordination of internal controls and risk management throughout the business.

The biographies of the executive committee can be found on the Network Rail website: [networkrail.co.uk](http://networkrail.co.uk)

### Role of the senior independent director

Janis Kong is the senior independent director. Janis is available to the SoS if he has concerns where contact through the normal channel of chair has failed to resolve an issue or for which such contact is inappropriate.

The senior independent director acts as a sounding board for the chair and serves as an intermediary for the other directors when necessary. The senior independent director is responsible for the chair's performance review.

### The special director

The SoS has the power to appoint a special director to the board, and has appointed Richard Brown to fill this position. The special director is responsible for communicating the views of the SoS and the DfT's wider strategic statutory and fiduciary interests to the board, whilst acting in accordance with his duties as a non-executive director.

### Role of the non-executive directors

The non-executive directors combine broad business and commercial experience from the rail and other industry sectors. They bring independence, external skills and challenge. This is critical for providing assurance that the executive directors are exercising good judgement in delivery of strategy and decision-making.

Information on the skills and experience of the non-executive directors can be found in the board biographies on pages 45-48.



Links to the statements of responsibility for each of the chair, chief executive, senior independent director and the non-executive directors can be found on the Network Rail website: [networkrail.co.uk](http://networkrail.co.uk)

### Non-executive meetings

The chair holds regular scheduled meetings with the non-executive directors to discuss the performance of Network Rail under the executive leadership. The non-executive directors held three such meetings during the year. At one such meeting the SoS attended.

### Non-executive independence

The board considers that each of the non-executive directors is independent of the company. With regard to the guidelines on the meaning of 'independence' as set out in the Code, it is appropriate to disclose that Rob Brighouse, Richard Brown and Chris Gibb are beneficiaries of the Railway Pension Scheme (RPS). Over 100 companies from the rail industry participate in RPS. The scheme is run by independent trust managers, with trustees drawn from across the membership of the scheme, including other companies within the scheme.

Given this structure, the board considers that each of Rob Brighouse, Richard Brown and Chris Gibb is independent, as Network Rail is only one of many contributing companies to RPS.



Sir Peter Hendy receives health care benefits from Network Rail. Further information can be found in the remuneration report on page 76.

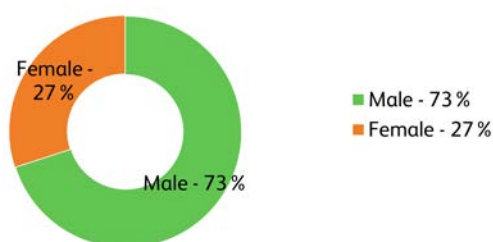
### Board diversity

With regard to gender diversity Network Rail has met its target of at least 25 percent of the non-executive directors being women by 2015. The board has considered the Davies review five-year summary of progress made and is mindful of Government Code's requirement that 50 percent of all new appointments should be women.

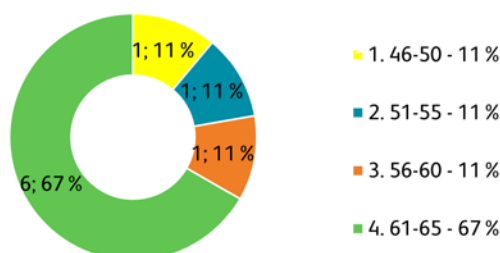
Taking this into consideration, the current target is for 30 percent of the board to be women. The board is keen to broaden diversity in terms of ethnicity and disability but has not adopted specific targets in this regard. Diversity is considered important at all levels below board; page 31 provides further detail.

The below charts show the composition of the non-executive directors by sex, age, and length of service.

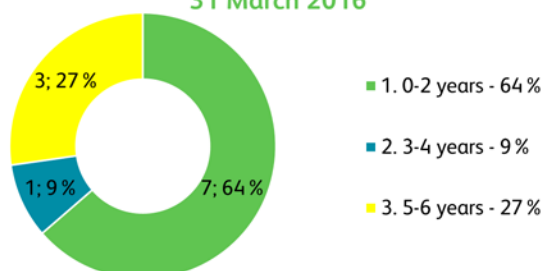
**Non-executive directors diversity by sex as at 31 March 2016**



**Non-executive directors' diversity by age as at 31 March 2016**



**Non-executive directors length of service as at 31 March 2016**



### Board recruitment and induction

The board has delegated authority to the nomination committee to lead the process for board appointments (other than for the chair and special director) and make recommendations to the board. This committee's report can be found on pages 64 to 65 which provides detail on the

appointment process for Rob Brighthouse and Jeremy Westlake and details their induction.

### Board training and development

The board as a whole participates in a range of training and development sessions each year. This included a half day training programme by the Samaritan's on suicide prevention and support on the railways. In addition, since October 2015, Sir Peter Hendy has invited a route managing director to brief the board at each board meeting. During the year briefs have been received from the Anglia, London North East and Wessex routes. Representatives from Digital Railway and Infrastructure Projects have also presented to the board on their strategy and key projects. In addition, directors considered the Bowe, Hendy and Shaw reviews and received relevant corporate governance and legal updates as appropriate.

### Provision of advice to directors

The directors have access to the advice and services of the group general counsel and company secretary, who is responsible for compliance with board procedures and provision of adequate information to the directors in a timely manner. Directors have the right to seek independent professional advice at Network Rail's reasonable expense.

### Independent board effectiveness evaluation 2015

During 2015/16, external consultancy IDDAS undertook an independent light touch review of the board, to complement and build upon the full board evaluation undertaken by IDDAS in 2014/15.

The process involved one-to-one interviews with the board members and company secretary. IDDAS also attended one board meeting. The outcome from the review was presented to the board.

Overall, the board was found to have improved since the 2014/15 review. Directors remained committed to their roles and to the improvement of overall performance of Network Rail. The boundary between the executive and non-executive roles had been more clearly defined. Furthermore, accountabilities between the executive directors and management had sharpened.

The board have agreed a light touch independent review will be undertaken during 2016/17.

### Directors' personal performance reviews

Both executive and non-executive directors, including the chair, have an annual performance review. The process for executive directors is the same as that for other employees.

Performance objectives are set following discussion with their line manager. There are regular review meetings throughout the year. A formal performance review at the end of the year results in a performance rating.

Regarding non-executive directors, the chair meets with each non-executive director throughout the year to discuss their performance, as well as having a more formal performance review meeting annually. While no specific objectives are set for non-executive directors, their performance is measured against the statement of responsibilities of non-executive directors, available at: [networkrail.co.uk](http://networkrail.co.uk)

The chair's performance is assessed by the senior independent director in consultation with the other directors.

## CORPORATE GOVERNANCE REPORT CONTINUED

IDDAS key findings 2015/16	Recommended actions
1. Board information, whilst overall quality of supporting documentation had improved, further review of volume and detail of information provided to the board was required.	<ul style="list-style-type: none"> <li>Board paper template review and introduction of guidelines for drafting papers.</li> <li>Consideration of training to those in business who draft papers.</li> </ul>
2. To enhance the continuous improvement mindset of the executive, and to implement a process to improve this.	<ul style="list-style-type: none"> <li>The executive are currently implementing structured continuous improvement mechanisms including introduction of visualisation meetings and LEAN methodology.</li> </ul>
3. To improve focus of discussions surrounding succession planning of the board.	<ul style="list-style-type: none"> <li>Implementation of a skills matrix. This is now regularly reviewed by the nomination committee.</li> </ul>
4. Board effectiveness has improved due to a reduction of number of directors.	<ul style="list-style-type: none"> <li>The board has increased in size due to the appointment of a special director. A representative from UK Government Investments (UKGI) also attend board meetings. No specific action required but chair to remain cognisant of various stakeholders when chairing meetings.</li> </ul>
5. To improve the quality of strategic reporting to the board.	<ul style="list-style-type: none"> <li>The board to dedicate further time to consider strategic matters. This has been implemented and the chair now invites a route managing director to a board meeting to present their route strategy.</li> </ul>

### Accountability

#### Fair, balanced and understandable

The board is accountable for ensuring that the annual report and accounts is 'fair, balanced and understandable'. Having reviewed the content of the annual report as a whole, the board believes that the content is fair, balanced and understandable and allows assessment of Network Rail's performance and prospects. See page 62 for further information on the process supporting the board's view.

### Going concern

The board considers that it is appropriate for the 2015/16 group accounts to be prepared on the going concern basis. See page 85 for further information.

### Viability statement

The viability statement can be found on page 43.

### Determination and delivery of group strategy

The board is responsible for determining and delivering the business strategy of Network Rail and its subsidiaries.



Further information on the strategy and business model can be found in the strategic report on pages 6-7.

### Key risks – how they are identified, assessed and monitored

The board is responsible for approving Network Rail's risk management strategy including an appropriate internal control policy and other major corporate policies such as health and safety, sustainability and business ethics.

On behalf of the board, the audit and risk committee reviews Network Rail's risk profile, risk assessment processes, risk

exposure and future risk strategy against the group's risk appetite, proposals for testing risk mitigation and control and management's responsiveness to audit findings.

The audit and risk committee reports to the board on its activities after each meeting, and recommends proposed strategies and policies to the board for approval. More information on Network Rail's approach to risk management can be found on pages 36-37.

### Other accountabilities

The board of Network Rail is accountable to a number of external bodies. Further information on our governance structure can be found on page 51.

### Remuneration

The board's obligation is to ensure that Network Rail's remuneration policy is designed to attract and retain leaders of the necessary calibre, while fairly reflecting market rates for the skills and experience of the individual and recognising the need to ensure value for money for the funders of the railway.

The board has delegated powers to meet this obligation to the remuneration committee. That committee's report can be found on pages 68-83.

### Stakeholder engagement

The nature of NR's business requires it to engage with multiple stakeholders in a variety of different ways.

## CORPORATE GOVERNANCE REPORT CONTINUED

### Membership

Network Rail's sole member is the Secretary of State for Transport (SoS). The SoS is accountable to Parliament for the activities and performance of Network Rail. The SoS is responsible for holding the board to account for its management and leadership of Network Rail by:

- Monitoring the performance of the board against high standards of governance, regulatory, operational and financial targets alongside public and taxpayer interest
- Engaging with the board, in an informed and objective manner, on its performance
- Seeking assurance that governance procedures are designed to facilitate the delivery of strategic objectives
- Entering into dialogue on matters that are an immediate subject of votes at general meetings.

As a member, the SoS has specific rights (Special Member) in relation to the company's articles of association (Constitution). The table below summarizes certain rights the SoS has in his capacity as Special Member.

The DfT also provides credit support in relation to the debt funding of the Network Rail group and has certain rights in that capacity.

### Changes to membership model

On 25 June 2015, the SoS exercised his powers under the Constitution to remove the public members of Network Rail with effect from 1 July 2015.

### Engagement with the SoS

The relationship and engagement with the SoS, in its capacity as special member, is managed by the group general counsel and company secretary and overseen by the chair.

A representative from the UKGI attends board meetings, enabling the directors to develop a balanced understanding of Government's objectives.

### The Annual General Meeting (AGM)

The formal business of the AGM is set out in a number of separate resolutions to be considered at the meeting. The SoS is provided with a copy of the notice of meeting, alongside the annual report and accounts (as is the National Audit Office). The SoS has the option to vote either for or against a resolution, or to withhold his vote (although a withheld vote is not considered to be a vote in law). Final voting figures are announced to the London Stock Exchange.



**Sir Peter Hendy, CBE**  
Chair  
30 June 2016



**Mark Carne**  
Chief executive,  
in his role as  
accounting officer  
30 June 2016

### Special member rights

Rights	Detail of these rights being exercised in 2015/16
To appoint and remove the chair of Network Rail.	The SoS appointed Sir Peter Hendy as chair with effect from 16 July 2015. The SoS further tasked Sir Peter to review Network Rail's investment programme.
To approve the board's suggested candidate for chief executive of Network Rail.	N/A
To appoint a special director of Network Rail.	The SoS appointed Richard Brown as a special director with effect from 1 July 2015.
To be consulted on non-executive director appointments.	Network Rail consulted with the DfT in relation to the appointment of Rob Brighthouse.
To hold regular meetings with the chair, to discuss corporate strategy and raise concerns.	The chair regularly meets with the SoS and Permanent Secretary of the DfT.
To approve the three-yearly Remuneration Policy for executive directors of the company.	Last approved in 2014.
To set the pay for the chair and non-executive directors.	The remuneration of Sir Peter Hendy, as chair of Network Rail was agreed by the DfT. Page 76 provides further detail.
To remove the public members.	The public members were removed by the SoS on 1 July 2015.

# SAFETY, HEALTH AND ENVIRONMENT COMMITTEE REPORT

The following report discusses the committee's areas of attention in the past year, alongside its anticipated activities for 2016/17.

Encouragingly the overall safety performance of Network Rail has continued to improve. This is both in respect of steadily reducing the estimated risk of a major train accident (it is nine years since the last passenger or workforce fatality as a result of a train derailment or collision) and also in respect of workforce safety. Commitment and hard work at every level of the organisation has been rewarded with no workforce fatalities on Network Rail managed infrastructure this year, and a 30 percent reduction in RIDDOR Specified Injuries compared to the previous year. The target ten percent improvement in workforce Lost Time Injury Frequency Rate has also been achieved, our best ever performance

Despite the good progress, we can never be complacent, as several high potential incidents highlighted during the year.

One particular concern continues to be level crossings, where risks are being reduced, but slower than we hoped. This can be due to reluctance by local authorities to agree to closures even where the ongoing risks are very clear. Other major concerns are trespass (sometimes with tragic consequences) and suicides. I would like to thank the British Transport Police (BTP) and the Samaritans especially for their continued commitment to improve our close partnerships in these areas.

During the year, the committee met six times, continuing our regular focus on understanding potential causes of major train accidents and workforce injuries, and finding ways to reduce and mitigate them. This included evaluating a wide range of possible initiatives, further improving understanding of risk, and prioritisation of improvements.

This has enabled significant rationalisation of the original plans, which should therefore accelerate the top priority train accident risk reduction activities, and also help to widen and deepen staff commitment to the chosen workforce safety improvements.

We also reviewed the potential safety impact of asset renewals during CP5, and reported to both the board and Office of Rail and Road (ORR) that the proposed reductions from original plans should have only a marginal impact on train accident safety risks.

In June 2015, Graham Hopkins was appointed as a member of the executive committee to lead the safety, technical and



engineering department. This function comprises safety, environment and sustainability together with engineering and asset management, supporting the Routes and Infrastructure Projects. Graham's key focus is structured continuous improvement and the committee has welcomed this approach in striving to achieve a safer and better performing railway.

During the year, committee members visited Bristol Delivery Unit, focusing on the introduction of multi-disciplinary teams to improve asset management. We met operational employees, and were given an insight into how this new way of working could potentially have a positive impact to both workforce safety risk and reduction of point failures.

The committee welcomed Rob Brighthouse and Sir Peter Hendy as members of the committee. Chris Gibb and I look forward to their future contribution.

**Malcolm Brinded**  
Chair, safety, health and environment committee  
30 June 2016

## Committee members

Member	Formal appointment to the committee	Number of meetings attended during the year
Malcolm Brinded*	November 2010	6/6
Rob Brighthouse	January 2016	1/1
Chris Gibb	November 2013	6/6
Sir Peter Hendy	October 2015	1/3**

## Previous members during the year

Richard Parry-Jones	April 2013 – July 2015	1/1
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\* Chair since 2013

\*\* Sir Peter Hendy was unable to attend two meetings due to commitments made prior to his appointment to the Committee. This included the opening of Crossrail and the publication of the Hendy Review coinciding with the dates of the meetings.



## CORPORATE GOVERNANCE REPORT CONTINUED

### Committee attendees

The chief executive, managing director for England and Wales, managing director for Infrastructure Projects, director of Risk and Assurance and the Safety, Technical and Engineering director and his direct reports attend meetings by invitation.

Mick Cash, general secretary of the RMT Union is invited to attend committee meetings and participates in topics for discussion. This aids scrutiny and challenge and enhances transparency of the work of the committee.

Ian Prosser, both chief inspector of railways and director, Railway Safety at the ORR, attends committee meetings twice a year to present the regulator's view on Network Rail's safety performance.

Representatives from the BTP attended a meeting in February 2016 to discuss progress of the joint initiatives between Network Rail, BTP and the rail industry to prevent, as far as possible, suicide and trespass on the railway.

### Role of the committee

The committee's role is to monitor the integrity of the methods of discharge of the safety, health and environmental responsibilities of Network Rail and to satisfy itself as to the adequacy and effectiveness of the safety, health and environmental policies and strategies within the group.

The committee's responsibilities include:

- Considering significant corporate and individual safety, health and environment risks and whether management is managing these effectively
- Reviewing the scope and results of any safety, health and environment audits, and their effectiveness
- Considering the major findings of internal and external investigations and management's response.

Following each committee meeting, the chair provides a summary of the committee's activity to the next board meeting, and makes recommendations as appropriate.



The terms of reference of the committee can be found on our website: [networkrail.co.uk](http://networkrail.co.uk)

### Principal activities during the year

Matters considered by the committee during the year included:

- The programmes in place to reduce workforce safety risk with discussions focused on embedding cultural safety change and safety leadership within the organisation
- Safety, health and environment related incidents within Network Rail and contractor operations, including fatalities at level crossings and an ironman runaway at Gwaun-Cae-Gurwen, the lessons learned from these incidents, and actions being taken to mitigate against a recurrence of similar incidents, the learnings from the Bavarian train collision were also reviewed
- The long-term level crossing strategy and how this will be reflected in the Initial Industry Advice submission to obtain funding for control period 6

- Findings from corporate-level audits and agreed action plans
- The sustainability and social performance strategy and its impact on the group and wider stakeholders.
- Deep dive reviews into, amongst other things:
  - Safety at Network Rail managed stations with particular focus on the approach to crowd management and slips, trips and falls
  - Train accident risk reduction, with key focus on signals passed at danger, infrastructure operations and objects on the line.
  - Improving safety in Infrastructure Projects, via enhanced safety criteria during the procurement process, increased dialogue in industry forums and further utilisation of safety metrics when evaluating supplier performance.
  - Progress of initiatives to improve the safety of structures during CP5, including the creation of a civils strategic asset management system, the bridge strike initiative programme and risk targeted renewal investment.

### Planned activities during the coming year

During the coming year, the committee will continue to monitor the progress of the initiatives already underway to improve workforce safety, health and wellbeing, and passenger safety.

Particular areas of focus for 2016/17 will include:

- The electrical safety delivery programme and its leading key performance indicators and milestones
- The progress of the planning and delivering safe work programme
- Enhanced deployment of train protection warning systems to improve safety performance surrounding level crossings
- Assurance that the governance and processes surrounding safety leadership and close call reporting deliver the required outcomes
- The sustainability and social performance strategy and its impact on the group and wider stakeholders.

# AUDIT AND RISK COMMITTEE REPORT

This report provides an insight into the committee's activities in the past year, alongside its anticipated activities for the coming year.

2015/16 was the first full year since reclassification of Network Rail and becoming an arms' length central government body. One of the effects of reclassification was an increase in public scrutiny of Network Rail and its spending, as its borrowing and debt are now included in measures of public sector borrowing and debt.

Supported by The National Audit Office (NAO), Comptroller and Auditor General (C&AG) was appointed as Network Rail's independent auditor. He will also carry out value for money studies on the economy, efficiency and effectiveness of specific areas of Network Rail's expenditure.

The chief executive was appointed as Network Rail's accounting officer and is personally accountable to Parliament for safeguarding the public funds for which he has charge; for ensuring propriety, regularity, value for money and feasibility in the handling of those public funds; and for the day-to-day operations and management of Network Rail. To safeguard this appropriate and efficient spending, a core management assurance process has been introduced, requiring senior management to self-assess their compliance with legal and ethical requirements, Network Rail standards and policies and other management controls in their respective business units or functions. We reviewed the results of this compliance in great detail prior to submitting the results to the DfT. This focus on reviewing money efficiencies and internal core controls will continue to be key considerations of the committee during the coming year.

Rob Brighthouse joined the committee in January 2016. Sharon Flood, Janis Kong and I look forward to working with him.

→ Further information on responsibilities and accountabilities of the Accounting Officer can be found on page 53.



**Bridget Rosewell**  
Chair, audit and risk committee  
30 June 2016



## Committee members

Member	Date appointed to committee	Number of meetings attended
<b>Bridget Rosewell*</b>	July 2012	4/4
<b>Sharon Flood**</b>	September 2014	4/4
<b>Janis Kong</b>	January 2010	4/4
<b>Rob Brighthouse</b>	January 2016	1/1

\*Chair since September 2012

\*\*Sharon Flood has relevant financial experience having recently been a group chief financial officer of Sun European Partners LLP

## Committee attendees

The chair of the board, chief executive, chief financial officer, director, Risk and Assurance, and group general counsel and company secretary attend meetings of the committee by invitation. Representatives from the NAO also attend each meeting and periodically meet with the committee members without executive management present. Periodically the director, Risk and Assurance meets with the committee without executive management present.

## Role of the committee

The role of the committee falls into the following broad areas:

### Financial reporting

- Monitoring the integrity of the annual report and accounts of the company, major subsidiary undertakings and the group as a whole
- Reviewing significant accounting judgements and policies and compliance with accounting standards
- Considering whether the annual report and accounts is fair, balanced and understandable.

### Internal controls

- Monitoring internal control systems and their effectiveness
- Compliance with the Code and other regulatory obligations.

# CORPORATE GOVERNANCE REPORT CONTINUED

## Risk management

- Reviewing Network Rail's risk management processes, risk identification and reporting any issues arising from such reviews to the board
- Making recommendations to the board on the level of risk appetite acceptable to Network Rail
- Reviewing the process undertaken and associated work required to complete the viability statement.

## Internal audit

- Agreeing internal audit plans and reviewing reports of internal audit work
- Reviewing the effectiveness of the internal audit plans
- Implementation of actions from internal audits, and outstanding actions.

## Independent auditor

- Overseeing the relationship with the National Audit Office as the independent auditor and C&AG.

## Whistleblowing and fraud

- Reviewing the policy and procedures whereby employees can raise, in confidence, concerns about possible improprieties
- If required, reviewing reports of such incidents.

Following each meeting, the chair provides a summary of the committee's activities to the next board meeting and makes recommendations as appropriate.

→ The terms of reference of the committee can be found on our website: [networkrail.co.uk](http://networkrail.co.uk)

## Principal activities during the year

Matters considered by the committee during the year included:

## Internal controls and risk management

- Risk management reports, identifying high-level risks and the status of mitigation, current risk profile, changes to the risk profile during the year and the progress that has been made in mitigating the key strategic risks
- Risk reviews of the enhancement improvement programme, cyber security, critical resources, track renewals and information governance
- Regulatory escalator, a tool that captures and monitors issues of concern to the Office of Rail and Road (ORR).

→ Further information on Network Rail's internal control system can be found on pages 36-37.

## Financial reporting

- Following reclassification, the C&AG was appointed as independent auditor of Network Rail Limited
- NAO's approach and scope of the audit work and the findings of their work
- The 2015/16 half-yearly report and full year financial statements with focus on the reporting judgements contained within them and the basis for preparing the accounts on a going concern basis
- The regulatory financial statements.

## Internal audit

- The annual internal audit plan 2016
- The output from, and progress against, the internal audit plan
- Implementation of actions from internal audits, and review of outstanding and overdue actions.

## Significant accounting judgements, key assumptions and estimates

With the support of the NAO, the committee assessed whether suitable accounting policies had been adopted, whether management had made appropriate estimates and judgements and disclosures were balanced and fair. The main areas of focus during the year are set out overleaf.

## Appointment of the independent auditor

From 2010 to 2015, Pricewaterhouse Coopers LLP (PwC) acted as Network Rail's independent auditors. One impact of the reclassification of Network Rail as a central government body was the appointment of the C&AG as Network Rail's independent auditor, in line with standard arrangements for central government bodies. Supported by the NAO, C&AG operates independently to help Parliament scrutinise how public funds have been used in practice.

In May 2015, the NAO presented to a panel of management, the chair of the committee and an independent expert a proposal for the appointment of the C&AG. Following a further presentation to the committee, the committee recommended to the board that the C&AG be appointed as the independent auditor. The board agreed and the resolution for the C&AG's appointment was passed at the annual general meeting in September 2015.

In addition to providing an opinion on the group accounts, the C&AG also audits the individual accounts of Network Rail Infrastructure Finance PLC, Network Rail Infrastructure Limited and Network Rail (High Speed) Limited. PwC continue as the independent auditors for the remaining subsidiaries.

The committee has followed regulatory developments in relation to audit tendering and other audit and non-audit associated matters. In particular, it considered the Competition and Markets Authority (CMA) Order and its requirement for listed companies to undertake a competitive tender process prior to the appointment of the auditors.

As outlined above, Network Rail is required to appoint the C&AG. As such, the company is unable to comply with the CMA's Order requirements.

The committee is also aware that the authority for appointment, re-appointment and approval of the remuneration of independent auditors now rests with audit committees rather than boards. The committee has therefore recommended to the SoS to re-appoint C&AG as Network Rail's independent auditor.

## CORPORATE GOVERNANCE REPORT CONTINUED

Accounting judgements	How the committee addressed these judgements
<p><b>Valuation of railway network and compliance with regulatory requirements</b></p> <p>The revaluation model used to measure the value of the railway network consists of a number of estimates and judgements made by Network Rail (for example anticipated financial and operational outperformance in the control period).</p>	<p>Detailed reports from management were considered by the committee and the methodology applied to the revaluation model was also reviewed and agreed.</p> <p>The committee also challenged management and the independent auditor on:</p> <ul style="list-style-type: none"> <li>• The reasonableness of key judgements and estimates in respect of the forecast for the remainder of CP5.</li> <li>• The appropriate level of disclosures in the annual report and accounts around the valuation process and the related assumptions and judgements.</li> </ul>
<p><b>Risk of management override of internal controls</b></p>	<p>Reports on management's approach to implementing, operating and monitoring the system of internal control are considered by the committee on a regular basis. The committee considered a letter of responsibility from the chief executive regarding the standard of internal controls and integrity that has prevailed in the business during the financial year.</p> <p>The independent auditor has also focused attention on this area and provided satisfactory reporting to the committee on this matter.</p>
<p><b>Deferred tax</b></p> <p>It was considered there remains insufficient certainty with regard to when Network Rail can expect to use its brought forward tax losses.</p>	<p>Reports indicated that the reclassification of Network Rail as a public body, when taken together with continued high levels of investment in the railway network, meant that it was hard to judge that Network Rail would return within a predictable period to the level of taxable profits that would allow for the utilisation of tax losses. It was agreed to continue to derecognise deferred tax assets.</p>
<p><b>Valuation of investment properties</b></p> <p>Investment properties are stated at fair value. The valuations are based on assumptions and estimates that require judgement.</p>	<p>The committee agreed the appropriate methodology had been used. The methodology was consistent with prior years and included valuations and additional assistance from external valuation specialists. The valuations were reviewed by management and the external valuation specialists.</p>
<p><b>Hedge accounting and derivatives</b></p> <p>Forward starting interest rate swaps are accounted for as cash flow hedges where it is believed that future sterling issuances are highly probable.</p>	<p>The committee agreed with the assessment that it is highly probable that Network Rail will borrow more than required to utilise all the forward starting interest swaps. The borrowing agreement in place with the DfT is greater than the original value of the interest rate swaps. Network Rail's CP5 capital investment programmes will use substantially all of the borrowing facility.</p>
<p><b>Pension assumptions</b></p> <p>The group operates defined benefit and defined contribution pension schemes. Valuation of these schemes is dependent on certain key assumptions and complex calculations. External actuaries are engaged to assist in advising on key assumptions and determining the value of the pension obligations.</p>	<p>The committee discussed the key assumptions, including the degree to which these were supported by professional advice from the actuaries. The independent auditor also focused attention on this area and provided reporting to the committee on this matter.</p>

### Objectivity and independence of the independent auditor

The committee has put in place safeguards to maintain the independent auditor's objectivity and independence.

To enhance independence and in line with established auditing standards, a new senior statutory auditor of the independent auditor is appointed every five years, with other key audit principals within that firm rotated every seven years.

The committee has also established a policy whereby employment of the independent auditor on work for the company is prohibited, other than for audit services or tax compliance services, without prior approval by the committee.

The committee is responsible for the oversight of compliance with the policy and considers any requests to use the independent auditor for non-audit work.

Such requests are now unlikely in practice as the NAO does not offer non-audit services. The NAO does carry out Value for Money work on Network Rail, but this does not represent a service to Network Rail as it is performed under statute and on behalf of Parliament.

In 2015/16 the fee for audit services was £0.5m (£0.7m in 2014/15). This includes the NAO's cost of auditing Network Rail Infrastructure Limited, Network Rail Infrastructure Finance plc, Network Rail (High Speed) Ltd and the Regulatory Accounts, and excludes the cost of the audit of some smaller subsidiaries which continue to be performed by PwC.



## CORPORATE GOVERNANCE REPORT CONTINUED

### Internal Audit

The primary role of an Internal Audit function is to provide objective and independent assurance regarding the adequacy of the group's internal control framework and compliance with policies, laws and regulations. The work of Internal Audit is focused on the areas of priority as identified by risk and materiality analysis and is in accordance with an annual audit plan which is approved by the committee.

At each meeting, the Internal Audit function reports on its activities and on the results of the Internal Audit reports to the committee. In particular, the committee looks in detail at any unsatisfactory or unacceptable audit ratings and checks that the shortcomings are being investigated and timely remedial actions are undertaken.

### Risk management

Whilst the ultimate responsibility for risk management rests with the board, it delegates the more detailed oversight of risk management to the committee which reports its findings to the board.

The Risk function reports on the risk management processes and effectiveness of those processes. Further, it reviews the group risk profile and any changes in the profile. Through the assessment and a review of the principal and specific risks, the Risk function identifies a group risk appetite and recommends its adoption to the board.

→ Further information on Network Rail's approach to risk management can be found on pages 36-43.

### Speak Out

Network Rail's whistleblowing or 'Speak Out' policy and confidential reporting 'hotline' have been in place since 2012. Significant effort has gone into communicating both the policy and the reporting line to employees through a variety of channels including intranet stories, case studies, and most importantly, by training.

Company-wide ethics training was launched in October 2015 covering a number of key topics including whistleblowing. To date, almost 18,000 employees have been trained.

Usage of the Speak Out line has been consistently rising since implementation in 2012. 2015/16 saw 253 reports submitted to the line, which is a 23 percent increase on the previous year. Next year, due to the training and heightened awareness, call volumes are expected to increase further.

Network Rail is a signatory of Public Concern at Work's First 100 campaign. Their statutory Code of Practice supports whistleblowing arrangements for employers and employees. Being a signatory means Network Rail has agreed to abide by the principles set out in the Code of Practice and work towards compliance.

### Viability statement

The committee also reviewed management's work undertaken in preparation of the viability statement, which can be found on page 43.

### Fair, balanced and understandable

The committee acknowledges that, taken as a whole, the annual report and accounts needs to be 'fair, balanced and understandable' and needs to allow assessment of the group's performance and prospects. The committee advises the board on whether it believes that the annual report and accounts meets this requirement.

In order for the committee to make this assessment, it considers reports received from management during the year, monitoring financial performance, and at year end in support of the accounts. The committee also receives reports from the independent auditor on the findings of their annual audit. Formal review processes are in place to ensure the annual report and accounts is factually accurate.

The committee has considered whether the annual report and accounts for 2015/16 is fair, balanced and understandable and provides the information necessary for an informed reader to assess Network Rail's performance, business model and strategy.

The committee considered the following questions:

#### Is the annual report fair?

- Has the whole story been presented and has any sensitive information been omitted that should have been included?
- Is the messaging in the front-half of the annual report consistent with the financial disclosures?
- Is the scorecard disclosed at an appropriate level?

#### Is the annual report balanced?

- Is there an over-emphasis of matters that are not material?
- Is the narrative report in the strategic report consistent with the financial reporting in the accounts, and does the messaging reflected in each remain consistent when read independently of each other?
- Is there an appropriate balance between statutory and non-statutory measures and are non-statutory measures clearly defined?
- Are the risks in the narrative consistent with the committee's risks and issues and key areas of uncertainty and judgments?
- Are the key risks aligned with the audit report?

#### Is the annual report understandable?

- Is the document designed to suit the needs of the Secretary of State for Transport in its capacity as a member?
- Is the report understandable to a reasonably informed reader?
- Are new messages and themes clearly articulated?
- Has all undue complication been removed?

The committee considers that the annual report for 2015/16 is fair, balanced and understandable and allows assessment of Network Rail's performance and prospects.

## CORPORATE GOVERNANCE REPORT CONTINUED

### Planned activities for the coming year

During the coming year, the committee will remain focused on the audit, assurance and risk process within the business, and maintain its oversight of financial and other regulatory requirements.

Particular areas of focus for 2016/17 will include:

- Internal Audit and other assurance plans with particular focus on key strategic priorities and significant audit actions
- Integrity of internal controls including risk management
- Oversight of the specific business presentations relating to the most significant risks within the group's risk profile
- Monitoring and oversight of new accounting and regulatory developments.

# NOMINATION COMMITTEE REPORT



The following report provides an overview of the committee's activities in the past year, and looks ahead to our anticipated activities during 2016/17.

During 2015/16 we focused on:

- the composition of the board and the combined capabilities and experience of the directors
- the appointments of Rob Brighthouse, Richard Brown and Sir Peter Hendy as non-executive directors and the appointment of Jeremy Westlake as chief financial officer.
- The committee engaged with the DfT and UK Government Investments (UKGI) on fees paid to non-executive directors. That engagement is ongoing.

The committee also performed its routine duties, such as reviewing the succession plans for senior management, and reviewing the outcome of the 2015/16 light-touch board effectiveness review and the associated action plan.

During 2016/17 it is anticipated that we will focus on ensuring that the board and its committees continue to support the delivery of Network Rail's strategy. We will do this, at least in part, by ensuring that the board and senior management team has an appropriate blend of capability, skills, expertise and experience, and that effective development and succession plans are in place for all senior executive roles.

During the year Richard Brown and Sir Peter Hendy joined the committee. Michael O'Higgins and I have welcomed their contribution.

**Janis Kong**  
Chair, nomination committee  
30 June 2016

## Committee members

Member	Date appointed to committee	Number of meetings attended
<b>Janis Kong (chair)*</b>	July 2010	3/3
<b>Richard Brown</b>	October 2015	3/3
<b>Sir Peter Hendy</b>	October 2015	3/3
<b>Michael O'Higgins</b>	September 2014	3/3

*\*Chair since September 2014*

## Previous member during the year

<b>Richard Parry-Jones**</b>	April 2013 – July 2015	1/1
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*\*\*Stepped down from the board on 15 July 2015*

## Committee attendees

The chief executive, group Human Resources director and group general counsel and company secretary attend meetings by invitation.

## Role of the committee

The committee's role is to assess, review and monitor board composition and evaluation.

The committee's former accountability for the effectiveness of non-financial corporate governance is now undertaken by other committees.

Following each committee meeting, the chair provides a summary of the committee's activity to the next board meeting, and makes recommendations as appropriate.

The terms of reference of the committee can be found on the Network Rail website: [networkrail.co.uk](http://networkrail.co.uk)

## CORPORATE GOVERNANCE REPORT CONTINUED

### Principal activities during the year

The principal matters considered by the committee during 2015/16 were:

#### Recruitment of directors

During 2015/16 Rob Brighthouse, Richard Brown and Sir Peter Hendy were appointed as non-executive directors. In addition, Jeremy Westlake was appointed as an executive director and chief financial officer.

- Sir Peter Hendy was appointed by the Secretary of State for Transport as chair of Network Rail on 16 July 2015 to replace Richard Parry-Jones, who stepped down from the board on 15 July 2015.
- The SoS, as Network Rail's Special Member, exercised his right under the company's articles of association to appoint a non-executive director to the board. Accordingly Richard Brown was appointed as special director on 1 July 2015.
- Rob Brighthouse joined the board as a non-executive director on 1 January 2016.
- Jeremy Westlake was appointed as an executive director and chief financial officer on 24 February 2016, in place of Patrick Butcher, who resigned.

Rob Brighthouse, Richard Brown, Sir Peter Hendy and Jeremy Westlake will be seeking election as directors of the board for the first time at the 2016 AGM.

#### Recruitment of Rob Brighthouse

In January 2016, Rob Brighthouse was appointed as a non-executive director. His appointment was managed internally by the committee with support from the group general counsel and company secretary. An independent executive search firm, Ridgeway Partners, conducted the search.

Having regard to the other non-executive directors, the committee identified the knowledge, skills and experience that they thought would complement and enhance the composition of the board. In line with the committee's brief, a number of potential candidates were identified and interviewed by the search firm.

A short list of recommended candidates was interviewed by the committee as well as Janis Kong and Chris Gibb. Following recommendation by the committee the board sought the SoS's approval for the appointment of Rob Brighthouse as a non-executive director with effect from 1 January 2016.

An induction programme was created for Rob Brighthouse, taking into account his prior experience in the railway industry. As part of that programme he met with all directors and the executive committee members, as well as senior executives from the treasury, safety and property teams.

#### Recruitment of Jeremy Westlake

Jeremy Westlake was appointed as chief financial officer in February 2016. Having drawn up a role and person specification detailing the capabilities, skills and experience that the role holder would need, the group Human Resources director managed the selection process.

Following work by independent executive search firm, Green Park, and a media advert, a long list of more than 10 people was identified by Green Park for consideration by Network Rail. Eight of those on the long-list were interviewed by the group Human Resources director and Sharon Flood, a non-executive director with financial expertise.

Following those interviews, two candidates underwent external assessment and were interviewed by Mark Carne, the chief executive.

The Department for Transport was updated on developments throughout the process.

The induction programme prepared for Jeremy Westlake included meetings with each board member, a detailed session with the group general counsel and company secretary on governance and legal matters, and site visits across the network, including London Bridge, Shrewsbury delivery unit and mechanical signalling depot.

#### Board evaluation

The Code requires companies to undertake external board evaluation at least every three years. In 2014/15 Network Rail initiated an independent review of the effectiveness of its board and committees, which was undertaken by IDDAS.

Network Rail asked IDDAS to undertake a 'light-touch' review of the board's effectiveness in summer 2015, to measure progress against the actions arising from the 2014 review.

The committee reviewed IDDAS's findings and management's action plan to address the points raised. Further detail can be found on page 54.

#### Directors' personal performance reviews

During the year the committee managed the process of directors' personal performance reviews. Further information on this process can be found on page 54.

#### Succession planning

The committee received progress reports from senior management on the succession planning process with particular focus on senior key roles in the business. The committee recognises that effective talent management programmes and the enhancement of diversity and inclusion across all levels of the organisation is essential for the delivery of the company's long-term objectives.

#### Planned activities of the committee during the coming year

During 2016/17, the committee will:

- Review the 2016 board effectiveness light touch review being conducted by Independent Audit and subsequently make recommendations to the board regarding any key findings
- Undertake a search for two non-executive directors to replace Malcolm Brinded and Janis Kong who plan to retire from the board in 2016, and
- Review committee chairs and members.



# TREASURY COMMITTEE REPORT

This report provides an overview of the committee's activities in the past year, alongside its anticipated activities for the coming year.

The announcement in December 2013 that Network Rail would be reclassified as a public body effective September 2014 curtailed future access to Government backed debt and, from July 2014, Network Rail has only borrowed directly from the Government via a Department for Transport loan facility. Reclassification also meant Network Rail becoming subject to public sector constraints and resulted in significant restrictions on group treasury activities in the areas of funding, investment management and financial risk management.

At the same time, Network Rail is expected to raise £1.8bn to partially fund the increased costs of major projects upgrades and renewals in Control Period 5 (CP5). To address this, we started considering the disposal of assets which we could sell without affecting the day-to-day operation of a safe and reliable network, which is our fundamental objective. In addition, raising capital to fund enhancements via alternative funding sources will continue to be a key consideration for us during the coming year.

Rob Brighouse joined the committee at the end of the financial year. Sharon Flood and I look forward to working with him.



**Bridget Rosewell**  
Chair, treasury committee  
30 June 2016



## Committee members

Member	Date appointed to committee	Number of meetings attended
<b>Bridget Rosewell*</b>	July 2012	2/2
<b>Sharon Flood</b>	September 2014	2/2
<b>Rob Brighouse</b>	January 2016	0/0

\* Chair since July 2014

## Previous member during the year

<b>Richard Parry-Jones**</b>	April 2013 – July 2015	1/1
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\*\*Richard Parry-Jones stepped down from the board on 15 July 2015

## Committee attendees

The chair of the board, chief financial officer, group treasurer, and group general counsel and company secretary also attend meetings.

## Role of the committee

The committee's role is to:

- Review and satisfy itself as to the appropriateness of proposed treasury transactions including banking, cash management, debt management investment management and treasury risk management
- Approve or recommend strategies and policies in relation to areas of treasury management, including liquidity management and forecasting, risk management and bank relationships
- Review the Treasury function's financial reporting and internal control procedures
- Approve specific transactions in the areas of treasury responsibility.

Following each meeting, the chair provides a summary of the committee's activities to the next board meeting and makes recommendations as appropriate.



The terms of reference of the committee can be found on our website: [networkrail.co.uk](http://networkrail.co.uk)

## CORPORATE GOVERNANCE REPORT CONTINUED

### Principal activities during the year

Matters considered by the committee during the year included:

- Review of existing debt issues, associated maturities, and cash flow forecasts
- Annual review of the adequacy and effectiveness of treasury policies and approving the annual update of the Treasury Policy Manual
- Review of the weighted average debt maturity policy with respect to its impact on CP5 financing costs
- Review of the utilisation of interest rate pre-hedges against DfT Loan Facility drawdowns to manage cash financing costs
- Considering the benefits of a number of potential strategic finance opportunities, particularly in relation to potential asset disposals, and recommending that they continue to be explored further.

### Planned activities during the coming year

During the coming year, the committee will continue to monitor the progress of the initiatives already under way. Particular areas of focus for 2016/17 will include:

- Reviewing and oversight of the programme of work designed to raise £1.8bn via the disposal of non-essential railway assets, to contribute funding towards enhancements and renewals projects in CP5
- Exploring alternative approaches to raising capital to fund enhancements and the digital railway in future Control Periods
- Review of existing collateral arrangements
- Assessing the impact of any strategic finance opportunities that may be proposed to the board.

# DIRECTORS' REMUNERATION REPORT

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# ANNUAL STATEMENT FROM THE REMUNERATION COMMITTEE CHAIR



I am pleased to present the 2016 directors' remuneration report from the Network Rail remuneration committee. The remuneration committee is committed to the highest standards of disclosure on remuneration and recognises that executive pay is an important issue for a public body. We operate in line with the remuneration reporting requirements which apply to UK listed companies and the provisions of the UK corporate governance code.

At the AGM in 2014 the Remuneration Policy (Policy) was approved. This sets out the framework and limits for how our directors are paid. The Policy was included in the 2013/14 directors' remuneration report and can also be viewed on our website: [networkrail.co.uk](http://networkrail.co.uk)

Our annual remuneration report explains the executive remuneration outcomes in respect of 2015/16 and will be subject to approval from our member, the Secretary of State for Transport, at the 2016 AGM. Key points to note are:

- The executive remuneration framework at Network Rail has three components – salary, benefits/pension and an incentive plan. The incentive plan is based on performance in the year and payment is deferred for three years.

- The maximum performance related incentive payment that can be paid to an executive director is 20 percent of salary.
- The annual incentive paid out at 34.7 percent of maximum opportunity, which equates to 6.94 percent of salary for executive directors.

The rest of this report explains how executive remuneration is determined at Network Rail and provides further information on outcomes in respect of 2015/16.

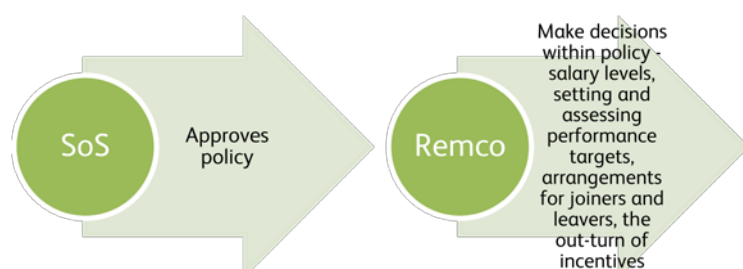
## Determining executive pay at Network Rail – best practice corporate governance

Network Rail has a corporate governance structure which operates within best practice principles. The remuneration of the executive directors is determined by the remuneration committee and subject to approvals as illustrated below:

### Developing policy:



### Implementing policy:





## DIRECTORS' REMUNERATION REPORT CONTINUED

During the year the committee has been operating within the policy approved at the 2014 AGM. The key items discussed by the committee were:

- Out-turn of incentive plans
- Review of clawback wording
- Executive directors' objectives
- Remuneration benchmarking
- Review of terms of reference and incentives policy
- Pay business case.

During the year the committee welcomed Richard Brown and Sir Peter Hendy, who was appointed chair of Network Rail in July 2015. The 2014/2015 remuneration report was approved by the DfT at the AGM.

### Implementation of the remuneration framework to deliver Control Period 5 commitments

In 2014, when developing the Policy, the committee identified four principles on which the Control Period five (CP5) remuneration framework is based. These principles continue to underpin the approach:

**Simple** - The framework should be simple and transparent for all stakeholders to understand.

**Competitive and fair** - Attracting and retaining leaders of the necessary calibre requires remuneration arrangements that are reasonable in the markets in which we compete for talent and which fairly reflect the appropriate market rates for the skills and experience of the individual. At the same time, we always remain cognisant of the need to ensure value for money and to reflect our status as a publicly funded body.

**Performance and safety** - There should be a performance-related element of the package which rewards performance in areas that are most important for our stakeholders. There should be no reward for failure. Safety of the workforce, passengers and the general public is at the heart of everything we do and must be reflected in the remuneration framework.

**Aligned with employees** - Where possible, remuneration structures will be aligned across the organisation. All Network Rail employees continue to be eligible for incentive payments, determined using a consistent performance framework across the organisation.

Based on these principles, the remuneration framework for executive directors introduced in 2015 was greatly simplified. No payments outside this framework may be made. The key changes were to simplify the structure and dramatically reduce the maximum incentive opportunity from 160 percent of salary to 20 percent of salary. The structure is summarised below:

<b>Salary</b>	Salaries are set at a level which reflects the skills and experience of the individual as well as the scope of the responsibilities of the role.
<b>Benefits and pension</b>	Participation on the same basis as other managerial positions at Network Rail.
<b>Incentive</b>	One incentive plan based on the achievement of stretching annual performance targets aligned to the business scorecard.

Network Rail is large and complex and continues to need talented people to deliver the long-term objectives in CP5 and beyond, while remaining dedicated to ensuring the safety of our passengers, our workforce and the public on a daily basis.

Remuneration needs to be appropriate to attract the right talent whilst recognising Network Rail is publicly funded.

### 2016 outcomes

Performance related pay remains a core principle of the remuneration policy, with no reward for failure. Performance around our safety, investment and asset management measures was strong in 2015/16. However reporting on train performance, financial and satisfaction measures has highlighted these as areas for improvement. Overall performance against the scorecard was 36.6 percent. For bonus scheme purposes this was adjusted downwards by 1.9 percentage points to 34.7 percent of the possible 20 percent maximum (i.e. 6.94 percent of salary).



Full details of the decision making and out-turn of the performance related incentive can be found on page 73.

### Implementation in 2016/17

There are no changes proposed to the remuneration policy this year.

The business scorecard, which is a key factor in determining performance related incentive payments, has been reviewed to reflect the further devolution to the Routes. The national balanced scorecard will now be a reflection of the key measures that are important to Routes to deliver performance for our customers. Sixty percent of the scorecard has fixed measures and weightings, safety, finance and asset management. This provides comparability and consistency. Train performance indicators makes up twenty percent of the scorecard, with each Route selecting from a defined list of consistent metrics. The remaining twenty percent of the scorecard reflects other measures according to customer needs. The overall national scorecard will be an aggregate of the Route scorecards.

This approach balances consistent metrics in areas where comparability is useful with metrics that are important to customers. All of the targets set are stretching and reflect performance improvements.

The remuneration committee welcomes the conclusions from the Shaw report that:

1. Network Rail needs to review its remuneration and benefits package to ensure that it is capable of attracting the right calibre of people to lead the autonomous elements of a highly devolved organisation. (R7.10)
2. It is important that pay is not a deterrent in attracting the right people. Salary levels for some roles are uncompetitive in comparison to the wider industry. (R7.11)
3. The DfT, Cabinet Office and HMT should swiftly determine how any necessary flexibility in pay can be provided as Network Rail has limited flexibility in these areas. (R7.12)

## DIRECTORS' REMUNERATION REPORT CONTINUED

During the next year the remuneration committee will consider these recommendations as part of the planned review of the remuneration policy, with full stakeholder engagement. This will take part in the latter part of 2016 with a view to recommending changes in early 2017.



**Michael O'Higgins**  
Chair, remuneration committee  
30 June 2016

# ANNUAL REMUNERATION REPORT

This report has been prepared in accordance with the requirements of Schedule 8 of the Large and Medium-sized Companies and Groups (Accounts and Report) (Amendment) Regulations 2013. Some of the disclosures in these sections, where indicated, have been audited.

## Single total figure of remuneration for 2015/16 (audited)

The table below summarises all remuneration for the executive directors in respect of 2015/16 (and the prior year comparative). Further discussion of each of the components is set out on the pages which follow.

£'000	Salary		Benefits <sup>4</sup>		Pension <sup>5</sup>		Annual Incentive Plan (AIP) <sup>6</sup>		Total	
	2015/16	2014/15	2015/16	2014/15	2015/16	2014/15	2015/16	2014/15	2015/16	2014/15
Mark Carne	675	675	17	17	67	79	47	0	806	771
Patrick Butcher <sup>1</sup>	377	410	13	16	119	133	0	0	510	559
Paul Plummer <sup>2</sup>	217	362	8	17	115	168	0	0	340	547
Jeremy Westlake <sup>3</sup>	31	-	1	-	3	-	-	-	36	-

1. Patrick Butcher stepped down from the board on 24 February 2016.
2. Paul Plummer stepped down from the board and took payment of his pension benefits upon leaving employment on 1 November 2015.
3. Jeremy Westlake was appointed to the board on 24 February 2016.
4. Benefits include car allowance, private medical cover, any annual travel subsidy, life assurance and relocation costs reimbursed.
5. Pension includes the value of all pension benefits receivable in respect of the relevant year. This includes both the supplementary cash allowance and a value from participation in the defined benefit or defined contribution pension arrangements (calculated in accordance with the methodology prescribed by the Regulations). Further details of these pension benefits are set out in the pension section on page 75.
6. The annual incentive plan payment will be deferred in full for three years and is then subject to meeting the safety and sustainability obligation.

## Executive Director changes

The remuneration arrangements for Paul Plummer and Patrick Butcher who left the board during the year were in accordance with the Policy. The arrangements are summarised below:

### Paul Plummer

- Stepped down from the board on 1 November 2015
- No payment in lieu of notice was made
- No other termination payment was made
- No eligibility for the 2015/16 incentive plan
- His replacement is not a board appointment.

### Patrick Butcher

- Stepped down from the board on 24 February 2016
- No payment in lieu of notice was made
- No other termination payment was made
- No eligibility for the 2015/16 incentive plan.

Jeremy Westlake was appointed to the board during the year. His remuneration package is in accordance with the remuneration policy.

# DIRECTORS' REMUNERATION REPORT CONTINUED

## Incentive plan 2015/16 – annual incentive plan (audited)

The maximum potential AIP award for executive directors in 2016 was 20 percent of salary. Stretching performance targets were set at the start of the year in the context of the corporate scorecard, which can be found on page 8.

For executive directors one half of the plan is based on the out-turn against the corporate scorecard. The other half is based on achievement against personal objectives.

Performance against the corporate scorecard is summarised on page 8. Overall performance was below expectations. Specifically performance was good/exceeded expectations in relation to safety, investments and asset management. Areas where improvement is required includes train performance, financials and satisfaction.

ORR Board wrote to Network Rail's remuneration committee setting out its views on Network Rail's performance in 2015/16. The ORR specifically considered Network Rail's performance against the measures and targets in the corporate scorecard. ORR's comments reflected the out-turn against the measures and therefore the remuneration committee did not believe any additional adjustments should be made in light of ORR's comments.

The safety, health and environmental committee (SHE) also commented on performance, specifically in relation to safety. They noted good safety performance in relation to further passenger safety, workforce safety, public safety, including level crossings and further reducing train accident risk. No downward adjustment was therefore recommended.

At the start of the year, three directors were eligible to participate in this scheme, Mark Carne, Paul Plummer and Patrick Butcher. Both Paul and Patrick stepped down from the board during the year and therefore are not eligible to receive payments. Jeremy Westlake joined the board on 24 February 2016, and is not eligible to participate in the incentive plan for 2015/16.

One half of the incentive for executive directors is based on the corporate scorecard out-turn and the other half on personal performance. Mark Carne's performance against his objectives was assessed by Sir Peter Hendy who concluded that the element of bonus that is based on personal performance should be aligned to the corporate scorecard out-turn.

The executive committee reviewed performance against the scorecard and recommended to the remuneration committee that there should be a downward adjustment of 1.9 percentage points. This reflects the decline in performance at the end of the year in relation to enhancements financial performance metric (FPM). Performance against this measure was below the minimum performance level, so would not trigger a bonus payment. It then declined further at the end of the year. The executive committee felt that this further decline in performance should be reflected and therefore recommended a 1.9 percentage points downward adjustment to the scorecard for bonus purposes, which was approved by the remuneration committee. The overall out-turn of the scorecard for the year was 36.6 percent, with the downward adjustment of 1.9 percentage points, the bonus out-turn was 34.7 percent of opportunity.

Payments for executive directors are deferred in full for three years and are subject to the safety and sustainability obligation (see page 8 for more information).

## Long term incentives (LTIP) (audited)

### 2012/15 LTIP

This is the last legacy LTIP for Network Rail. Current and future incentives are paid through the annual scheme detailed in the previous section.

### KEY FEATURES

- Awards approved at the 2013 AGM
- Based on a performance period covering the three years to 31 March 2015
- Vesting based on performance in three areas: 50 percent based on financial value added (FVA), 25 percent based on PPM, and 25 percent based on project milestones and underpins being met
- The underpins to the plan were not met and as a result, **the awards lapsed.**



## DIRECTORS' REMUNERATION REPORT CONTINUED

The performance targets for this award are set out below and were discussed in detail in the 2012/13 directors' remuneration report.

	% of maximum	Cumulative FVA over FY 13-FY15	Performance measures	
			PPM moving annual average	Project milestones
Proportion of award		50 %	25 %	25 %
Performance above expectations	25 %	£75m	92.5 %	Delivery above expectations
Exceptional performance	100 %	£450m or above	93.0 % or above	Exceptional delivery

No payment below the threshold performance level. For performance between the levels shown, vesting is on a scaled basis. The LTIP used two underpins and the committee retained discretion to make a suitable downward adjustment to vesting levels if the underpins were not satisfied. This was to provide a safeguard such that performance in one area must not be achieved at the expense of another. Any vesting on the operational measure was subject to a positive cumulative FVA over the period. Any vesting on the FVA measure was subject to the committee's assessment that the key regulatory outputs had been sufficiently delivered. Under the clawback provision, the committee had discretion to reduce or cancel an award at any time before vesting, if circumstances were considered appropriate. These include:

- Gross misconduct
- A material misstatement of the company's audited results
- An unacceptable level of safety performance. In the event of a catastrophic accident for which Network Rail was culpable, no LTIP would normally be payable to any Network Rail executive director
- A material failure of risk management
- A failure to comply with obligations set out in applicable contractual agreements
- Serious reputational damage to the company as a result of the participant's misconduct.

The 2012/13 directors' remuneration report stated that as the plan spans two control periods, the targets would be verified once the determination was published and targets for the period in CP5 that this plan covers were finalised. The committee reviewed the targets once the determination was finalised and concluded that no changes should be made to the targets as the targets originally set were still appropriate.

Of the three measures, two did not meet the target, FVA and PPM and therefore no payment was triggered for them. The third measure, project milestones, achieved performance above the trigger with 82 percent of project milestones being achieved. Each measure is also subject to an underpin to vest. The project milestones measure had an underpin of positive cumulative FVA during the performance period. This underpin was not met and, as a result, the measure did not vest.

As none of the measures met both the threshold and the underpin, the plan did not vest and no payments were made to participants.

The following table summarises the awards under the 2012-15 LTIP at the time of vesting.

## DIRECTORS' REMUNERATION REPORT CONTINUED

	Date of award*	Performance period	Maximum value of initial award £000	Changes since award** £000	Value of award at vesting £000
Mark Carne	Not eligible	-	-	-	0
Patrick Butcher	2013	2012-2015	395	(395)	0
Paul Plummer	2013	2012-2015	338	(338)	0

\*Awards were made following member approval at the 2013 AGM.

\*\*Illustrates the change in the outstanding value of the award to reflect awards lapsing on cessation of employment as a Network Rail executive director during the performance period.

### Pension (audited)

Executive directors are eligible to participate in the Network Rail defined benefit pension schemes or defined contribution pension scheme on the same basis as other employees. Executive directors who have opted out of their respective pension arrangements to protect their lifetime allowance of £1.25m to 5 April 2016 (£1m from 6 April 2016) are eligible to receive a pension allowance on the same basis as other employees. This allowance is equivalent to the employer's pension contributions otherwise payable to the relevant pension scheme less the cost of providing continued life cover and less the employer National Insurance Contributions payable. In respect of salary above the Network Rail earnings cap (currently £150,600 although benefits were based on last year's value £149,400), executive directors and senior management may receive an additional pension allowance in the form of a cash salary supplement or contribution to a defined contribution scheme.

The table below sets out details for executive directors for 2016 in respect of all Network Rail pension benefits, split between the defined benefit and defined contribution/additional allowance. The value shown in the final column of this table is included as the pension column in the single total figure of remuneration on page 72.

	Defined benefit schemes					Other pension arrangements	
	Normal retirement age	Accrued pension at 31 March 2016 £000	Increase in accrued pension (net of inflation) during 2015/16	Transfer value of accrued pension at 31 March 2016 £000	Value included in single figure table (A) £000	Cash salary supplement or contribution to defined contribution scheme (B) £000	Total pension value reported in single figure table (A+B) £000
Patrick Butcher*	65	12	0.1	188	2	118	119
Mark Carne	-	-	-	-	-	67	67
Paul Plummer**	60	-	2	-	55	60	115
Jeremy Westlake	-	-	-	-	-	3	3

The normal retirement age shows the age at which the director can retire without actuarial reduction.

Transfer values as at 31 March 2016 have been calculated in accordance with 'The Occupational Pension Schemes (Transfer Values) (Amendment) Regulations 2008'.

For the defined benefit schemes, the value shown in the Single Figure table (A) has been calculated in accordance with the Regulations by applying a multiplier of 20x to the increase in accrued pension (net of inflation) during the year. For the additional pension allowance (B), the value shown is the gross cash allowance/contribution in the year. The value shown in the single figure table is the sum of A and B.

The increase in accrued pension, and single figure table numbers for Patrick Butcher and Paul Plummer, are based on the periods from 1 April 2015 to their respective leaving dates.

\*Patrick Butcher's accrued annual pension and transfer value prepared as at the date he stepped down from the board, 24 February 2016.

\*\*On leaving employment on 1 November 2015, Paul Plummer took payment of his pension benefits, actuarially reduced to reflect his early retirement. At that point, his accrued pension at normal retirement age was £39,000 (rounded) per annum and the cash equivalent transfer value of his accrued pension was £426,000 (rounded).

## DIRECTORS' REMUNERATION REPORT CONTINUED

### Non-executive directors' fees (audited)

Under the framework agreement the Secretary of State for Transport (SoS) sets the pay for the chair and non-executive directors of Network Rail. The fees for the non-executive directors were reviewed in March 2016.

The table below summarises the remuneration for the non-executive directors in respect of 2015/16.

	2015/16		2014/15	
	Fees £000	Benefits £000	Fees £000	Benefits £000
Rob Brighthouse <sup>1</sup>	12	-	-	-
Malcolm Brinded	60	-	60	-
Richard Brown <sup>2</sup>	37	-	-	-
Sharon Flood	50	-	30	-
Chris Gibb	50	-	50	-
Peter Hendy <sup>3</sup>	350	1	-	-
Janis Kong	69	-	63	-
Michael O'Higgins	60	-	60	-
Richard Parry-Jones <sup>4</sup>	75	-	250	-
Bridget Rosewell	70	-	67	-

<sup>1</sup> Rob Brighthouse joined the board on 1 January 2016

<sup>2</sup> Richard Brown joined the board on 1 July 2015

<sup>3</sup> Sir Peter Hendy joined the board on 16 July 2015. In addition to fees he receives private medical cover which was agreed by the DfT at the time of appointment.

<sup>4</sup> Richard Parry-Jones stepped down from the board on 15 July 2015

### Payments to former directors (audited)

There were no payments to former directors in 2015/16.

### Payments for loss of office (audited)

There were no payments for loss of office to executive directors in 2015/16.

### Outside appointments

Network Rail is supportive of executive directors who wish to take on a non-executive directorship in order to broaden their experience and enhance their contribution to Network Rail. Executive directors are normally required to seek approval from the committee to retain any fees they receive in respect of such appointments.

### Service agreements

Executive directors have service agreements which can be terminated by the company or the director by giving six months' notice. This applies to all current executive directors and would normally be applied as the policy for future appointments.

Name	Effective date of agreement	Notice period (from executive director and from Company)
Mark Carne	6 January 2014	6 months
Jeremy Westlake	24 February 2016	6 months

The company may terminate employment by making a payment in lieu of notice which would not exceed six months' salary. Each service agreement contains an express provision requiring the departing executive director to mitigate their loss. Network Rail would have regard to that duty and contractual requirement on a case by case basis when assessing the appropriate level of compensation which may be payable, including using phased payments.

### Additional disclosures

The following disclosures are required by the Regulations to provide additional context for considering executive remuneration.

## DIRECTORS' REMUNERATION REPORT CONTINUED

### Percentage change in remuneration

The table below shows the percentage change in the salary, benefits and AIP of the chief executive and all Network Rail employees from 2014/15 to 2015/16.

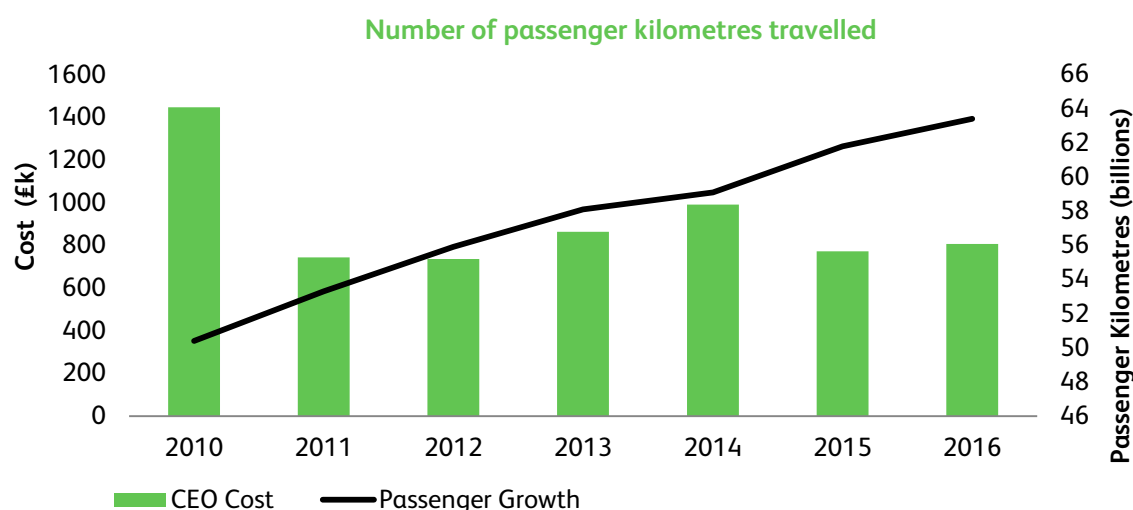
For the purposes of the table below, the annual change in the value of each of the components for the chief executive has been calculated using the data disclosed in the relevant columns of the single total figure of remuneration table on page 72.

	Chief executive	All employees
Salary	0 %	1.35 %
Benefits	0 %	0 %
Bonus	0 %	0 %

Salary review effective on either 1 January or 1 July 2015. Bonus is based on any changes to maximum opportunity.

### Performance graph and table

Under the Regulations, companies are required to include a chart showing historic total shareholder return (ie. share price and re-invested dividends) over a seven-year period alongside a table that shows the remuneration paid to the chief executive over the same period. As Network Rail does not have shares, or a share price, an alternative metric of passenger kilometres travelled has been used.



	2015/16	2014/15	2013/14	2012/13	2011/12	2010/11	2009/10
Chief executive	Mark Carne	Mark Carne	Mark Carne	David Higgins	David Higgins	David Higgins	Iain Coucher
Single total figure of remuneration	806	£771k	£200k	£790k	£836k	£736k	£161k
AIP ( % of vesting)	34.7 %	0 %	20.9 %	N/A	28.6 %	0 %	N/A
LTIP ( % of vesting)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Iain Coucher was appointed chief executive on 22 March 2002. He resigned on 31 October 2010

David Higgins was appointed chief executive on 1 February 2011. He resigned on 28 February 2014

Mark Carne was appointed chief executive on 24 February 2014

N/A indicates that there was no eligibility for an award vesting in respect of the relevant year



## DIRECTORS' REMUNERATION REPORT CONTINUED

### Relative importance of spend on pay

Under the Regulations, companies are required to illustrate the relative importance of spend on pay by disclosing the total employee remuneration and returns to shareholders (i.e. dividends and share buybacks) in the reporting year and the prior year. Network Rail is a not-for-dividend company and therefore cannot provide data on returns to shareholders. Therefore, in line with the principle of this disclosure, the table below includes other key Network Rail metrics to illustrate employee remuneration in the context of overall business activities.

	2015/16	2014/15	Change ( % )
Total employee remuneration	£1.929m	£1,919m	0.5 %
Total expenditure	£9,637m	£9,391m	2.6 %

### Consideration of directors' remuneration – remuneration committee and advisers

The membership of the committee during the year comprised the following independent non-executive directors: Michael O'Higgins, Chris Gibb and Sharon Flood. Richard Parry-Jones left the committee on 15 July 2015 when he stepped down from the board. Sir Peter Hendy joined the committee on 16 July 2015, and Richard Brown on 1 July 2015 when they were appointed to the board.

The group general counsel and company secretary is secretary to the committee. The committee is also supported by the director, Human Resources, and Head of Reward and Benefits. The chief executive attends meetings at the invitation of the committee. No individual is present when their own remuneration is being discussed.

In carrying out its responsibilities in line with best practice, the committee seeks independent external advice as necessary. During the year, the committee retained Deloitte LLP to provide independent advice on executive remuneration. Deloitte was appointed by the committee in 2012 following a selection process undertaken by the committee. The committee is comfortable that the Deloitte engagement partner and team provide objective and independent remuneration advice to the committee and do not have any connections with Network Rail that may impair their objectivity and independence. Deloitte is a founding member of the Remuneration Consultants Group and voluntarily operates under the code of conduct in relation to executive remuneration consulting in the UK. The code of conduct can be found at <http://www.remunerationconsultantsgroup.com/>.

During 2016, Deloitte provided independent advice to the committee in respect of developments in corporate governance and market practices. The fees charged by Deloitte for the provision of independent advice to the committee during 2016 were £13,750. Deloitte also provide services to the group in respect of programme support to Network Operations, Digital Railway and group finance and property advice.

### Key remuneration committee agenda items during the year:

April 2015	<ul style="list-style-type: none"> <li>• Out-turn of annual incentive plan 2014/15 and LTIP 2012-15</li> <li>• Clawback wording</li> <li>• Review of directors' remuneration report</li> </ul>
May 2015	<ul style="list-style-type: none"> <li>• Executive director objectives</li> <li>• Remuneration benchmarking</li> <li>• Terms of reference review</li> <li>• Incentives policy review</li> </ul>
December 2015	<ul style="list-style-type: none"> <li>• Business case for employees with a salary over £142,500</li> <li>• Christmas 2014 delays and bonus impact</li> <li>• Public sector cap on exit payments</li> </ul>
March 2016	<ul style="list-style-type: none"> <li>• Incentive scheme 2016/17</li> <li>• Business case for employees with a salary over £142,500</li> <li>• Directors' remuneration report update</li> <li>• Executive committee annual salary review</li> </ul>

# DIRECTORS' REMUNERATION REPORT CONTINUED

## Committee members

Member	Formal appointment to committee	Number of meetings attended during the year
Richard Brown	July 2015	3/3
Sharon Flood	September 2014	5/5
Chris Gibb	September 2014	5/5
Sir Peter Hendy	July 2015	3/3
Michael O'Higgins*	November 2011	5/5

## Previous members during the year

Richard Parry Jones	June 2012 – July 2015	2/2
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\*Chair since 2013

## Role of the remuneration committee

The role of the committee is to determine the policy for executive director remuneration and to make decisions within the policy. This includes the policy around pay, benefits, pension and performance related incentives.

→ The full terms of reference of the committee can be found on the website:  
[networkrail.co.uk](http://networkrail.co.uk)

## Remuneration policy for 2016/17

Principles which underpin the framework

Simple	Competitive and fair	Performance and safety	Aligned with employees
The framework should be clear and transparent for all stakeholders.	Remuneration should appropriately reflect the skills and experience of the individual and the scope and complexity of the role. At the same time, should provide value for money for taxpayers and passengers.	The incentive framework should reward exceptional performance in the areas most important for our stakeholders, such as safety, train performance and financial management. There should be no reward for failure.	The incentive structure is cascaded to all Network Rail employees to create alignment throughout the business. Business performance is consistently measured through the scorecard.

### Summary of remuneration policy for CP5

The structure of the remuneration framework for executive directors in CP5 is summarised below. No payments outside of this framework can be made following approval of the policy at the 2014 AGM.

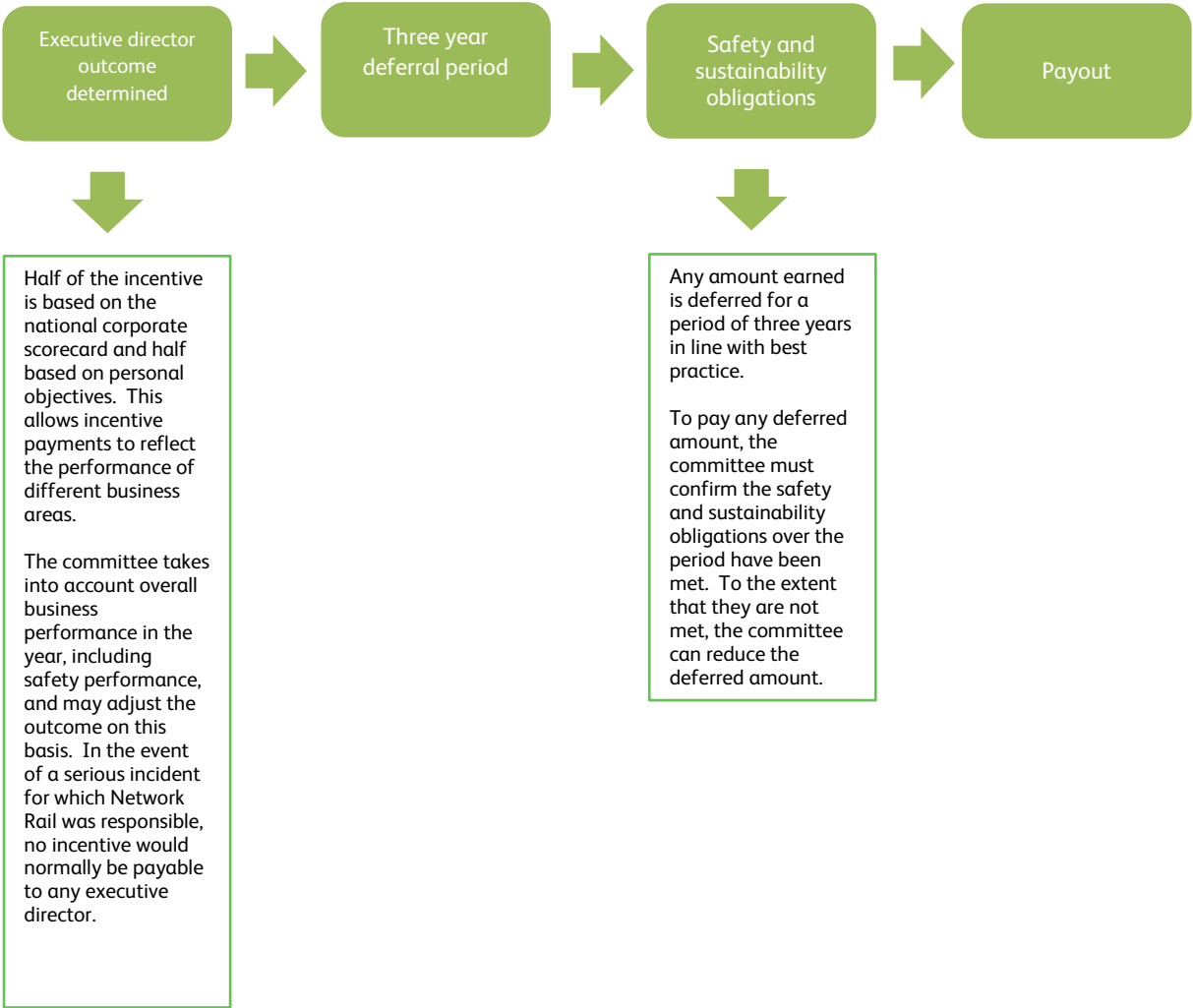
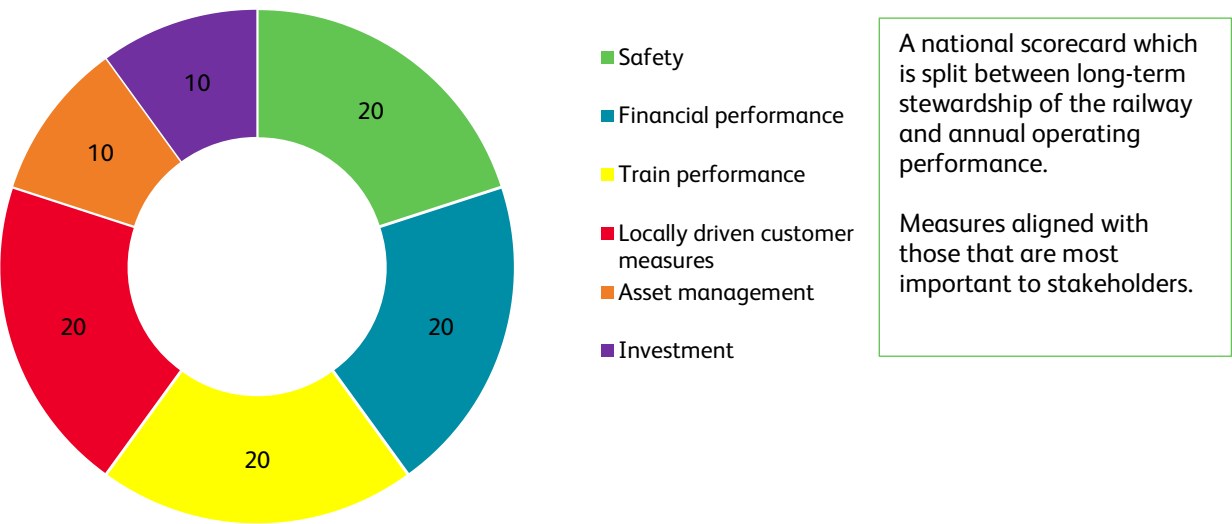
Future changes to the remuneration policy must be approved by the SoS, in accordance with the framework agreement.

Fixed remuneration	Salary	Salaries are set at a level that reflects the capability, skills and experience of the individual as well as the scope and responsibilities of the role allowing the company to recruit the calibre of individual needed to lead the business.  In line with other employee groups, salaries are reviewed annually and increases will normally be in line with the typical salary increase for the overall employee population over the same period.
	Benefits	Includes discounted rail travel and life insurance in line with all Network Rail employees, as well as car and healthcare benefits aligned with those for other management positions.
	Pension	Eligible to participate in Network Rail pension schemes on the same basis as all employees.  To provide a market competitive pension benefit, executive directors and senior managers may also receive a supplementary cash allowance of ten percent of salary above the Network Rail pension cap.
Performance related	Incentive	One incentive plan based on the achievement of stretching annual performance targets in the areas which our stakeholders care most about.  All Network Rail employees are eligible to participate, based on aligned business scorecard.  For executive directors, a maximum annual opportunity of 20 percent of salary, subject to performance and any amount is deferred for three years, subject to safety and sustainability obligations over the period being met.

Any new appointments are based on the framework above. Should an executive director leave the business, there would be no reward for failure. Further detail on the framework above is provided in the remuneration policy published in 2014 which is available on the Network Rail website: [networkrail.co.uk](http://networkrail.co.uk)

# DIRECTORS' REMUNERATION REPORT CONTINUED

## Incentive structure for executive directors – aligned to what is important for stakeholders



# DIRECTORS' REMUNERATION REPORT CONTINUED

## Safety and sustainability obligations

The payment of any deferred amount is subject to the committee's confirmation that the safety and sustainability obligations described below have been met. In the event that the obligations are not met, the committee may reduce the value of the deferred amount (including to zero), or impose further conditions which must be fulfilled prior to payment.

Details of how the committee had undertaken the assessment prior to payment of an award would be disclosed in the relevant annual remuneration report.

## Safety

In the event of a serious safety incident during the deferral period which impacts passengers, workforce, or the general public, for which Network Rail was responsible, the committee has discretion to reduce the deferred amount(s) which may be payable to an executive director (including to zero).

## Sustainability of business performance

The committee must confirm that performance delivered in the performance year has been appropriately sustained over the deferral period. No specific targets would apply for this assessment, but the committee would consider the following indicators:

- **Material downturn in a metric** - the committee's assessment of the extent to which performance in each of the metrics under the balanced scorecard (including safety) has been appropriately sustained in the years following the performance year. A consistent and material downturn in performance for a particular metric following the performance year may indicate performance has not been appropriately sustained.
- **Undermining long-term stewardship** - determination by the committee that annual operating performance targets have not been achieved as a result of actions which could undermine effective stewardship and performance of the railway network over the long term.
- **Overall CP5 consistency** - incentive payouts in respect of CP5 which, in aggregate, are consistent with overall performance in CP5 against the regulatory objectives.

## Other circumstances:

- A material misstatement of the company's audited financial results and disclosed operational performance.
- A material failure of risk management, or a failure to comply with obligations set out in applicable contractual agreements (including the network licence, the access agreements or other relevant contracts).
- Gross misconduct.
- Serious reputational damage to the company as a result of the participant's misconduct or otherwise.

## Revised UK Corporate Governance Code

In September 2014 the UK Corporate Governance Code was revised. The committee reviewed the Network Rail remuneration framework and confirmed that it was in line with the revised requirements. Compliance with the code now requires companies to have provisions to recover or withhold incentive payments to executive directors in circumstances where it is considered appropriate to do so. Under the Network Rail incentive structure any incentive payment earned in respect of performance in a financial year must be deferred in full for a period of three years over which it is subject to the terms of the safety and sustainability obligation detailed above and allows the committee to withhold the full amount of any payment in a wide range of circumstances related to safety and the sustainability of business performance. The committee believes these provisions satisfy the requirements of the revised code in this area.

## Balanced scorecard business performance targets for 2016/17

The table on the following page summarises the proposed business performance measures for executive directors for the 2016/17 financial year based on the framework described on page 8.

The overall national business scorecard used to measure performance every period is used for incentive plan measures and targets across the business.

For the last two years Network Rail has used a corporate scorecard to assess business performance, drive improved safety, operational and fiscal performance and create greater transparency throughout the organisation.

Network Rail has evolved the scorecard for 2016/17 to take account of further devolution. Customer led scorecards for each of the routes have been developed. The aggregate of these route scorecards will form the new national scorecard.

The new route based scorecards retain consistency and comparability by having 60 percent as fixed measures and weightings for safety, finance, asset management and investment. Route train performance indicators make up 20 percent of the scorecard and have been selected from a defined list of consistent metrics. The final 20 percent of the route scorecards reflect other measures with weighting depending on customer needs.



## DIRECTORS' REMUNERATION REPORT CONTINUED

This gives a balance between consistent measures in critical areas where direct comparability is desirable and metrics defined by customers. In each category demanding targets will be set, requiring improved performance in every aspect.

The framework of the 2016/17 national scorecard is detailed below including measures and weightings. The scorecard is subject to final confirmation with the DfT.

Area		Performance measure	Weighting	Included Measure
Fixed 60%	Safety	Lost Time Injury Frequency Rate (LTIFR)	20 %	5.0 %
		Close calls raised		2.0 %
		Close calls % closed within 90 days		3.0 %
		Passenger component of train accident risk where Network Rail is the risk controller		5.0 %
		Top 10 Milestones to reduce level crossing risk		5.0 %
	Financial Performance	Financial Performance Measure (FPM) - excl. enhancements (£m)	20 %	10.0 %
		Financial Performance Measure (FPM) - enhancements only (£m)		5.0 %
		2016/17 Cash Compliance		5.0 %
	Investment	Key milestones of top 10 enhancement projects	10 %	5.0 %
		% of Grip 3 & 6 milestones achieved		5.0 %
	Asset Management	Composite Reliability Index (CRI)	10 %	5.0 %
		7 Key Volumes		5.0 %
Locally Driven 40%	Train performance	PPM	20 %	9.3 %
		CaSL		3.5 %
		Right Time Arrivals		1.6 %
		Freight delivery metric (FDM)		4.0 %
		Other		1.6 %
	Customer Measures	People Measure	20 %	3.2 %
		Passenger Satisfaction		5.8 %
		Reduction in Railway Work Complaints		2.2 %
		Other		8.8 %

# DIRECTORS' REPORT

The directors present their annual report and the audited accounts for the year ending 31 March 2016.

Disclosures regarding business performance and activities, future business developments and risk management are contained in the strategic report (pages 1-43) and corporate governance report (pages 44-85).

## Directors

The directors who served during the year and held office at the date of signing the annual report and accounts are detailed on pages 45-48.

## Directors' conflicts of interest

In accordance with company law and the company's articles of association, the directors have the power to authorise any matter which would or might otherwise constitute or give rise to a direct or indirect conflict of interest. However, such authority can only be exercised if the director has declared his actual or potential conflict of interest to the board. The directors have a continuing obligation to update any changes to their conflicts. Further details about directors' conflicts of interest can be found on page 52.

## Branches

The company's subsidiary, Network Rail Consulting Limited, has established branches in Saudi Arabia and Dubai; in the United Arab Emirates.

## Contracts of significance

There were no contracts of significance subsisting during 2015/16 to which any Network Rail undertaking was a party and in which a director of the company is or was materially interested (as defined by Listing Rules LR 9.8.4R).

## Political donations

It is Network Rail's policy not to make political donations or to incur political expenditure in the United Kingdom and the European Union (EU). No political donations were made and no political expenditure was incurred during the year (2014/15: £nil).

## Investing in research and development

Technology and innovation is fundamental to Network Rail's success in Control Period 5 and beyond.

During the year the group charged £1m to the income statement (2014/15: £1m) on research and development.

Other costs relating to significant development work have been capitalised in property, plant and equipment. Further information on the cost of research and development can be found in the Note 5 on page 106.

## Financial disclosures

Disclosures in relation to the group's use of financial instruments, its financial risk management objectives and policies, including its policy for hedging each major type of forecasted transaction for which hedge accounting is used, its exposure to price risk, credit risk, liquidity risk and cash-flow risk are outlined under Note 25 on page 125.

Disclosures in relation to important events affecting the group since the financial year end and an indication of likely future developments are outlined in the chief financial officer's statement on pages 10-13.

Disclosures in relation to the amount of any interest capitalised by the group, including an indication of the amount and treatment of related tax relief are outlined in Notes 9 and 10 on pages 107-108 respectively.

No unaudited financial information relating to the financial year was published in a class 1 circular or in a prospectus during 2015/16.

Disclosures in relation to any long-term incentive schemes or directors waiving any emoluments from the group or any subsidiary undertaking are outlined in the remuneration report on pages 68-83.

## Statement of directors' responsibilities

The directors are responsible for preparing the annual report, the directors' remuneration report and the financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have prepared the group and company financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union. Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the group and the company, and of the profit or loss of the group for that period. In preparing these financial statements, the directors are required to:

- Select suitable accounting policies and then apply them consistently
- Make judgements and accounting estimates that are reasonable and prudent
- State whether applicable IFRSs as adopted by the EU have been followed, subject to any material departures disclosed and explained in the financial statements.

## DIRECTORS' REPORT CONTINUED

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the company's transactions and disclose with reasonable accuracy at any time the financial position of the company and the group and enable them to ensure that the financial statements and the directors' remuneration report comply with the Companies Act 2006 and, as regards the group financial statements, Article 4 of the IAS Regulation. They are also responsible for safeguarding the assets of the company and the group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The directors are responsible for the maintenance and integrity of the company's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

The directors consider that the annual report and accounts, taken as a whole, is fair, balanced and understandable and provides the information necessary for its member to assess the company's performance, business model and strategy.

Each of the directors in office at the date of this report, whose names and functions are listed on pages 45-48, confirm that, to the best of their knowledge:

- The financial statements, which have been prepared in accordance with IFRSs as adopted by the EU, give a true and fair view of the assets, liabilities, financial position and profit of the group and the undertakings included in the consolidation taken as a whole;
- The management report, which for the purposes of Disclosure and Transparency Rules DTR 4.1.8R - is incorporated into the strategic report and directors' report, includes a fair review of the development and performance of the business and the position of the group and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that the group faces.

### Independent auditor

Resolutions for the re-appointment of the current independent auditor, the National Audit Office, who also acts as the Comptroller and Auditor General, and to authorise the audit and risk committee to determine the independent auditor's remuneration, will be proposed at the forthcoming annual general meeting. The notice of meeting is enclosed, together with explanatory notes, in a pack with this report.

### Disclosure of information to the independent auditor

Each of the directors at the date of approval of this report confirms that:

- So far as the director is aware, there is no relevant audit information of which the company's independent auditor is unaware
- The director has taken all steps that he or she ought to have taken as a director in order to make the director aware of any relevant audit information and to establish that the company's independent auditor is aware of that information.

### Going concern statement

The group's business activities, together with the factors likely to affect its future development, performance and position

and the group's principal risks and uncertainties are set out in the 'strategic report' section on pages 1-43. The financial position of the group, its cash flows, liquidity position and borrowing facilities are described in the chief financial officer's review on pages 10-13. In addition, Note 25 on page 126 to the accounts includes the group's objectives, policies and processes for managing its capital; its financial risk management objectives; details of its financial instruments and hedging activities; and its exposures to credit, liquidity and foreign exchange risk. The viability statement on page 43 sets out a longer term assessment than this going concern statement.

The group has considerable financial resources together with long-term contracts with a number of customers and suppliers. This includes the DfT loan facility of £30.875bn, which Network Rail intends to draw upon to deliver its investment activities in the next 12 months. Business plans and financial models are used to project cash flows and monitor financial risks and liquidity positions, forecast future funding requirements and other key financial ratios, including those relevant to our network licence. Analysis is undertaken to understand the resilience of the group and its business model to the potential impact of the group's principal risks, or a combination of those risks. This analysis takes account of the availability and effectiveness of the mitigating actions that could realistically be taken to avoid or reduce the impact or occurrence of the underlying risks. In considering the likely effectiveness of such actions, the conclusions of the board's regular monitoring and review of risk management and internal control systems, as described on pages 36-37 are taken into account.

As a consequence, the directors believe that the group is well placed to manage its business risks.

After making enquiries, including those detailed above, the directors have a reasonable expectation that the company and the group have adequate resources to continue in operational existence for the foreseeable future. Accordingly, they continue to adopt the going concern basis in preparing the annual report and accounts.

For this reason and on the basis of the above, the Board considers it appropriate for the group to adopt the going concern basis in preparing its annual report and accounts.

### Post balance sheet events

Except as disclosed above, there have not been any significant post balance sheet events, whether adjusting or non-adjusting. On 23 June the referendum on membership of the European Union resulted in a decision to leave the EU. There are no major consequences that significantly impact the Annual Report & Accounts, however we will continue to monitor the consequences of the outcome of the referendum closely.

The directors' report was approved by the board on 30 June 2016 and is signed on its behalf by:



Suzanne Wise  
Group general counsel and company secretary  
30 June 2016

# FINANCIAL STATEMENTS

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## INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF NETWORK RAIL LIMITED

### Opinion on financial statements

In my opinion the financial statements:

- give a true and fair view of the group's and the parent company's affairs as at 31 March 2016 and of the group's result for the year then ended;
- have been properly prepared in accordance with International Financial Reporting Standards as adopted by the European Union; and
- have been prepared in accordance with the Companies Act 2006.

### Opinion on regularity

In my opinion, in all material respects the expenditure and income recorded in the financial statements have been applied by the purposes intended by Parliament and the financial transactions recorded in the financial statements conform to the authorities which govern them.

### Basis of opinions

I have audited the financial statements of Network Rail Limited for the year ended 31 March 2016 which comprise:

- the group and company balance sheets;
- the group income statement and statement of comprehensive income;
- the group and company statement of cash flows;
- the group statement of changes in equity; and
- the related notes.

The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards as adopted by the European Union and, as regards the parent company financial statements, as applied in accordance with the provisions of the Companies Act 2006. I have also audited the information in the Directors' Remuneration Report that is described as having been audited.

The regularity framework described in the table below has been applied.

Regularity Framework	
Authorising legislation	Companies Act 2006 / Articles of Association
Governing legislation	Network Licence
Parliamentary authorities	Supply and Appropriations Act
HM Treasury and related authorities	<ul style="list-style-type: none"><li>• Managing Public Money</li><li>• Delegated authorities and spending limits set out by DfT</li><li>• Pay remits</li></ul> <i>N.B. The Group is exempt from Cabinet Office spending controls</i>



## Overview of my audit approach

### Risks significant to my audit

I consider the following areas of particular audit focus to be those areas that had the greatest effect on my overall audit strategy, the allocation of resources in my audit and directing the efforts of the audit team in the current year.

I have also set out how my audit addressed these specific areas in order to support the opinion on the financial statements as a whole and any comments I make on the results of our procedures should be read in this context. This is not a complete list of all risks identified by my audit.

The areas of focus were discussed with the Audit and Risk Committee; their report on matters that they considered to be significant to the financial statements is set out on pages 59-63.

Risk	My response
<p><b>Property, plant and equipment – valuation of the railway network</b></p> <p>The Group accounts for the railway network as a single asset carried in the Balance Sheet at its fair value. In the absence of an active market, fair value is estimated using the discounted cash flows associated with the asset.</p> <p>As explained in Note 12 to the financial statements, the independent regulator determines the revenue requirement of the company using the building block model of regulation. Under this model the Group's future income is guaranteed based on the size of its Regulated Asset Base (RAB), which is added to as qualifying work is performed. The Group uses the RAB itself as the starting point for its discounted cash flow valuation, subject to adjustment for:</p> <ul style="list-style-type: none"> <li>any difference between regulatory rate of return and the market cost of capital that a third party investor would use to assess the value of the network; and</li> <li>forecast future under or out performance against the regulatory determination.</li> </ul> <p>The latter represents a key area of risk as it involves significant management estimates and judgement about the delivery of capital enhancement and renewal projects, train performance, efficiency and the cost of financing over the remainder of Control Period 5 ending of 31 March 2019, against a delivery plan set by the Office of Rail and Road.</p> <p>There are also a number of key judgements inherent in the use of the RAB as the starting point of a valuation, and the ongoing validity of these represents another area of risk.</p> <p>Key judgements:</p> <ol style="list-style-type: none"> <li>The regulatory regime remains sufficiently stable and robust to form the basis of a third party valuation;</li> <li>Investors consider management's forecast of the deliverability of the current regulatory determination to be a good indication of how other management groups would perform against the determination;</li> <li>The deliverability of the current 5-year determination does not have any implications for the deliverability of future determinations (i.e. the ambition of the regulator at the start of each Control Period is to set the regulatory determination at a level which is achievable and no more).</li> <li>The regulatory cost of capital is consistent with the market cost of capital.</li> <li>There are no significant indicators of impairment</li> </ol>	<p><b>Forecast performance against regulatory determination</b></p> <p>In all areas of performance forecasting material to the valuation, I assessed the reasonableness of management's assumptions in light of available data, including on recent performance. I focused my response most heavily on the elements of future performance subject to the highest levels of estimation uncertainty, which I identified to be the delivery of capital enhancement and renewal projects.</p> <p>• <b>Enhancements</b></p> <p>The railway network valuation includes a downwards adjustment of £134 million (undiscounted) in respect of forecast future underperformance against the regulatory baseline for enhancement projects; representing an adverse movement of £39 million after the realisation of in-year performance.</p> <p>Future forecast performance is calculated based on project level estimates of Anticipated Final Cost (AFC). I performed detailed work on a substantial sample of individual AFC estimates, assessing the rationale and the appropriateness of assumptions adopted.</p> <p>The choice of baseline expected to be applied by the regulator also represented a significant judgement for management, since while the post-Hendy review baseline was fully expected by the company to form the basis of future RAB additions, this policy had not been formally articulated by the regulator at the year end. The change in policy was confirmed in May and we have confirmed with the regulator that this also reflects their intentions at the Balance Sheet date which would have informed a third party's assessment of fair value.</p> <p>The Group's interim financial statements recognised significant escalation in the anticipated cost of the Great Western and Midland Mainline Electrification schemes. This has not resulted in downwards valuation at 31 March 2016 due to the regulator's decision to adopt the Hendy Review baseline as the regulatory baseline.</p> <p>• <b>Renewals</b></p> <p>The railway valuation includes a downward adjustment of £598 million in respect of forecast underperformance against the regulatory determination for renewals; representing an adverse movement of £108 million after the realisation of in-year performance.</p> <p>Future forecast performance is calculated at asset category level based on delivery plan assumptions about unit cost and volumes that will be achieved over the remainder of the current Control Period. I</p>

	<p>have identified key assumptions and assessed their reasonableness.</p> <p><b><u>Ongoing validity of judgements underpinning valuation methodology</u></b></p> <p>I revisited each key judgement and assessed its ongoing validity by reference to current regulatory, market and operational conditions. This included consideration of the outcome of the Shaw Review and the implications of the new Memorandum of Understanding between the Department for Transport and Network Rail on rail enhancements.</p>
<p><b>Property, plant and equipment – capital additions</b></p> <p>The Group is committed to a significant programme of network renewal and enhancements, and delivery through contractors. The construction contracts entered into typically span multiple accounting periods. There is therefore an element of estimation and judgement in recording the cost of work done in any given financial year.</p>	<p>I selected a substantial sample of capital projects for detailed testing with the dual aim of gaining assurance over:</p> <ul style="list-style-type: none"> <li>- the Cost of Work Done (COWD) in-year on enhancement and renewal projects; and</li> <li>- the Anticipated Final Cost of enhancement projects.</li> </ul> <p>Our sample included projects from a number of different enhancement areas including Infrastructure Projects, renewals, and property. Testing was initially performed on the basis of Period 11 data; rather than re-perform our Period 11 procedures in full at the year-end, we compared the reported year-end outturn for each project (COWD and AFC) to the expectation of year-end outturn that we created through our Period 11 testing, and for projects where the year-end outturn differed by more than a tolerable margin from our expectation, we made targeted follow up enquiries. My work on enhancement projects was largely contract focused and included the 'application and certification process', whilst my work on renewal projects within Network Operations was naturally more focussed on the capitalisation of internal costs (including staff costs).</p> <p>79% of the capital expenditure accrued at 31 March 2016 related to Infrastructure Projects, and primarily to unbilled contractor costs on these projects. Project teams typically receive invoices (or applications for payment) from contractors with a one month lag, meaning that an accrual is required for the estimated cost of the current month's activity. For each project sampled I obtained evidence to support the settlement of periodic 'applications for payment' and the valuation of the year-end accrual.</p> <p>For each project sampled, I also considered whether expenditure had been appropriately capitalised in line with IAS 16, with specific focus on the treatment of internal staff costs, design costs, and GRIP Stage 7 and 8 expenditure.</p>

### Application of materiality

I applied the concept of materiality in both planning and performing my audit, and in evaluating the effect of misstatements on my audit and on the financial statements. This approach recognises that financial statements are rarely absolutely correct, and that an audit is designed to provide reasonable, rather than absolute, assurance that the financial statements are free from material misstatement or irregularity. A matter is material if its omission or misstatement would, in the judgement of the auditor, reasonably influence the decisions of users of the financial statements.

The choice of materiality requires professional judgement and for the group financial statements as a whole was set at £100million, which is approximately 1% of the group's total gross annual expenditure (operating and capital), and approximately 0.2% of total assets. I consider these benchmarks to be the principal considerations for users assessing the financial performance of the group.

As well as quantitative materiality there are certain matters that, by their very nature, would if not corrected influence the decisions of users, for example, any errors reported in Directors' Remuneration. Assessment

of such matters would need to have regard to the nature of the misstatement and the applicable legal and reporting framework, as well as the size of the misstatement.

I applied the same concept of materiality to my audit of regularity. In planning and performing audit work in support of my opinion on regularity and evaluating the impact of any irregular transactions, I took into account both quantitative and qualitative aspects that I consider would reasonably influence the decisions of users of the financial statements.

I agreed with the Audit and Risk Committee that I would report to it all uncorrected misstatements identified through my audit in excess of £250,000, as well as differences below this threshold that in my view warranted reporting on qualitative grounds.

### **Scope of my audit**

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of:

- whether the accounting policies are appropriate to the group and parent company's circumstances and have been consistently applied and adequately disclosed;
- the reasonableness of significant accounting estimates made by the directors; and
- the overall presentation of the financial statements.

In addition I read all the information and non-financial information in the Annual Report to identify material inconsistencies with the audited financial statements and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by me in the course of performing the audit. If I become aware of any apparent material misstatements or inconsistencies I consider the implications for my report.

I am also required to obtain evidence sufficient to give reasonable assurance that the expenditure and income recorded in the financial statements have been applied to the purposes intended by Parliament and the financial transactions recorded in the financial statements conform to the authorities which govern them.

### **Group audit approach**

The Network Rail Group has total assets of £63,900 million. The majority of operations are within Network Rail Infrastructure Limited, whilst the legacy Debt Issuance Programme (used to finance the Group up until its reclassification as a public sector body on 1 October 2014) is in a separate legal entity, Network Rail Infrastructure Finance Plc, and there are further small legal entities including a consultancy business and a company that manages the maintenance of non-owned stations. The group is a consolidation of these legal entities.

I audited the full financial information of Network Rail Infrastructure Limited, Network Rail Infrastructure Finance Plc, as well as the consolidation. This work covered substantially all of the group's assets and pre-tax results, and together with the procedures performed at group level, gave me the evidence I needed for my opinion on the group financial statements as a whole.

## **Opinion on other matters prescribed by the Companies Act 2006**

### **Directors' remuneration**

In my opinion, the part of the part of the Remuneration Report to be audited has been properly prepared in accordance with the Companies Act.

I also report to you if, in my opinion, certain disclosures of directors' remuneration required have not been made. I have nothing to report arising from this duty.

### **The strategic and directors' reports**

In my opinion, based on the work undertaken in the course of the audit, the information given in the strategic and directors' reports for the financial year are consistent with the financial statements and have been prepared in accordance with applicable law.

Based on my knowledge and understanding of the Group and Parent company and their environments obtained during the course of the audit, I have identified no material misstatements in these reports.

### **The corporate governance report**

In my opinion, based on the work undertaken in the course of the audit, the information given in the corporate governance report in respect of internal control and risk management systems in relation to financial reporting processes, and about share capital structures, is consistent with the accounts and has been prepared in accordance with applicable law.

In my opinion, based on the work undertaken in the course of the audit, rules 7.2.2, 7.2.3 and 7.2.7 in the Disclosure Rules and Transparency Rules sourcebook made by the Financial Conduct Authority have been complied with.

Based on my knowledge and understanding of the Group and Parent company and their environments obtained during the course of the audit, I have identified no material misstatements in this information.

## **Matters on which I am required to report by exception**

### **Adequacy of accounting records and explanations received**

I report to you if, in my opinion:

- adequate accounting records have not been kept by the parent company, or returns adequate for my audit have not been received from branches not visited by my staff; or
- the financial statements and the part of the Remuneration Report to be audited are not in agreement with the accounting records and returns; or
- I have not received all the information and explanations I require for my audit.

I have nothing to report in respect of these matters.

### **Consistency of other information in the Annual Report**

Under the International Standards on Auditing (ISAs) (UK & Ireland), I am required to report to you if, in my opinion, information in the annual report is:

- materially inconsistent with the information in the audited financial statements; or

- apparently materially incorrect based on, or materially inconsistent with, our knowledge of the Group acquired in the course of performing our audit; or
- otherwise misleading.

In particular, I am required to consider:

- whether we have identified any inconsistencies between our knowledge acquired during the audit and the directors' statement that they consider the annual report is fair, balanced and understandable; and
- whether the Annual Report appropriately discloses those matters that we communicated to the Audit and Risk Committee which we consider should have been disclosed.

I have nothing to report arising from this duty.

### **The directors' assessment of principal risks and future prospects**

Under International Standards on Auditing (UK & Ireland), I am required to report to you if I have anything material to add, or to draw attention to, in relation to the directors' disclosures in the annual report and financial statements:

- confirming that they have carried out a robust assessment of principal risks facing the Group, including those that would threaten its business model, future performance, solvency or liquidity;
- describing those risks and explaining how they are being managed or mitigated;
- on whether they considered it appropriate to adopt the going concern basis, and their identification of any material uncertainties to the entity's ability to continue over a period of at least twelve months from the date of approval of the financial statements; and
- explaining how they have assessed the prospects of the entity, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

I have nothing material to add, or to draw attention to, on these matters.

### **Respective responsibilities of the directors and the auditor**

As explained more fully in the Statement of Directors' Responsibilities the directors are responsible for the preparation of the group financial statements and for being satisfied that they give a true and fair view. My responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and with ISAs (UK & Ireland). Those standards require me and my staff to comply with the Auditing Practices Board's Ethical Standards for Auditors.

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. My audit work has been undertaken so that we might state to the company's members those matters I am either required to state to them in an auditor's report and/or those further matters we have expressly agreed to report to them on in our engagement letter and for no other purpose. To the fullest extent permitted by law, I do not accept or assume any responsibility to anyone other than the company and the company's members as a body, for my audit work, for this report, or for the opinions I have formed.





Matthew Kay  
Senior Statutory Auditor

For and on behalf of the  
Comptroller and Auditor General (Statutory Auditor)  
National Audit Office  
157-197 Buckingham Palace Road  
London, SW1W 9SP

30 June 2016

# INCOME STATEMENT

## FOR THE YEAR ENDED 31 MARCH 2016

	Note	2016 Group £m	2015 Group £m
Revenue	3	6,098	6,087
Net operating costs	4	(4,491)	(4,352)
Operating profit		1,607	1,735
Property revaluation movements and profits on disposal		183	140
Profit from operations	5	1,790	1,875
Finance income	7	8	10
Other gains and losses	8	(65)	(41)
Finance costs	9	(1,322)	(1,338)
Profit before tax		411	506
Tax*	10	306	(882)
Profit/(loss) after tax for the year		717	(376)

\* The tax credit in the current year includes a tax credit of £181m due to enacted rate changes and a credit of £246m due to utilisation of previously derecognised tax losses. The prior year charge includes the derecognition of previously recognised deferred tax assets of £597m.

Under section 408 of the Companies Act 2006 the group has elected to take the exemption with regard to disclosing the company income statement. The company's result for the year was £nil (2015: £nil).

# STATEMENT OF COMPREHENSIVE INCOME

## FOR THE YEAR ENDED 31 MARCH 2016

	Note	2016 Group £m	2015 Group £m
Profit/(loss) for the year		717	(376)
Other comprehensive (expense)/income:			
Items that will not be reclassified to profit or loss			
Loss on revaluation of the railway network	12	(373)	(488)
Actuarial gain/(loss) on defined benefit pension schemes	26	99	(159)
Deferred tax relating to components of other comprehensive income	22	58	122
Total items that will not be reclassified to profit or loss		(216)	(525)
Items that may be reclassified to profit or loss			
Loss on movement in fair value of cash flow hedge derivatives		(232)	(982)
Reclassification of balances in the hedging reserve to the income statement		22	73
Deferred tax relating to components of other comprehensive income	22	17	19
Total items that may be reclassified to profit or loss		(193)	(890)
Impact of change in tax rate to components of other comprehensive income		47	-
Other comprehensive expense for the year		(362)	(1,415)
Total comprehensive income/(expense) for the year		355	(1,791)

# STATEMENT OF CHANGES IN EQUITY

## FOR THE YEAR ENDED 31 MARCH 2016

Group	Revaluation reserve £m	Other reserve* £m	Hedging reserve £m	Retained earnings £m	Total equity £m
Balance at 31 March 2014	1,380	249	78	6,475	8,182
Loss for the year	–	–	–	(376)	(376)
Other comprehensive (expense)/income for the year:					
Revaluation of the railway network	(488)	–	–	–	(488)
Transfer of deemed cost depreciation from revaluation reserve	(42)	–	–	42	–
Decrease in deferred tax liability on the railway network	98	–	–	(9)	89
Actuarial loss on defined benefit pension schemes	–	–	–	(159)	(159)
Deferred tax on actuarial loss	–	–	–	33	33
Decrease in fair value of hedging derivatives	–	–	(982)	–	(982)
Deferred tax on all hedging reserve movements/retained earnings	–	–	19	–	19
Reclassification of balances in hedging reserve to retained earnings	–	–	13	(13)	–
Reclassification of balances in hedging reserve to the income statement	–	–	73	–	73
Total comprehensive expense for the year:	(432)	–	(877)	(482)	(1,791)
Balance at 31 March 2015	948	249	(799)	5,993	6,391
Profit for the year	–	–	–	717	717
Other comprehensive (expense)/income for the year:					
Impact of change in tax rate	75	–	(17)	(11)	47
Revaluation of the railway network	(373)	–	–	–	(373)
Transfer of deemed cost depreciation from revaluation reserve	(23)	–	–	23	–
Decrease in deferred tax liability on the railway network	81	–	–	(5)	76
Actuarial gain on defined benefit pension schemes	–	–	–	99	99
Deferred tax on actuarial loss	–	–	–	(18)	(18)
Decrease in fair value of hedging derivatives	–	–	(232)	–	(232)
Deferred tax on all hedging reserve movements/retained earnings	–	–	17	–	17
Reclassification of balances in hedging reserve to the income statement	–	–	22	–	22
Total comprehensive (expense)/income for the year:	(240)	–	(210)	805	355
Balance at 31 March 2016	708	249	(1,009)	6,798	6,746

Other reserves of £249m (2015: £249m) include the vesting reserve on privatisation.

There has been no movements in the current or prior year affecting the statement of changes in equity for the company.

# BALANCE SHEETS

AT 31 MARCH 2016

	Note	2016 Group £m	2015 Group £m	2016 Company £m	2015 Company £m
<b>Assets</b>					
Non-current assets					
Intangible assets	11	66	67	–	–
Property, plant and equipment – the railway network	12	58,532	54,091	–	–
Investment property	13	1,109	982	–	–
Derivative financial instruments	20	654	721	–	–
Other receivables	17	73	109	–	–
Interest in subsidiaries and joint ventures	14	35	42	–	–
		60,469	56,012	–	–
Current assets					
Inventories	15	205	198	–	–
Finance lease receivables	16	1	1	–	–
Trade and other receivables	17	1,720	1,475	–	–
Current tax assets		5	–	–	–
Derivative financial instruments	20	309	50	–	–
Cash and cash equivalents		1,191	313	–	–
		3,431	2,037	–	–
<b>Total assets</b>		<b>63,900</b>	<b>58,049</b>	<b>–</b>	<b>–</b>
<b>Liabilities</b>					
Current liabilities					
Trade and other payables	18	(3,365)	(3,151)	–	–
Current tax liabilities		–	(2)	–	–
Borrowings	19	(2,685)	(3,133)	–	–
Derivative financial instruments	20	(9)	(5)	–	–
Provisions	21	(71)	(50)	–	–
		(6,130)	(6,341)	–	–
<b>Net current liabilities</b>		<b>(2,699)</b>	<b>(4,304)</b>	<b>–</b>	<b>–</b>
Non-current liabilities					
Borrowings	19	(40,601)	(35,415)	–	–
Derivative financial instruments	20	(1,399)	(1,038)	–	–
Other payables	18	(4,796)	(4,129)	–	–
Retirement benefit obligation	26	(1,420)	(1,505)	–	–
Deferred tax liabilities	22	(2,808)	(3,230)	–	–
		(51,024)	(45,317)	–	–
<b>Total liabilities</b>		<b>(57,154)</b>	<b>(51,658)</b>	<b>–</b>	<b>–</b>
<b>Net assets</b>		<b>6,746</b>	<b>6,391</b>	<b>–</b>	<b>–</b>
<b>Equity</b>					
Revaluation reserve		708	948	–	–
Other reserve		249	249	–	–
Hedging reserve		(1,009)	(799)	–	–
Retained earnings		6,798	5,993	–	–
<b>Total equity</b>		<b>6,746</b>	<b>6,391</b>	<b>–</b>	<b>–</b>

The financial statements on pages 94 to 138 were approved by the board of directors and authorised for issue on 30 June 2016.

They were signed on its behalf by:



Mark Carne  
Chief executive



Jeremy Westlake  
Chief financial officer

Company registration number: 4402220



# STATEMENT OF CASH FLOWS

## FOR THE YEAR ENDED 31 MARCH 2016

	Note	2016 Group £m	2015 Group £m	2016 Company £m	2015 Company £m
<b>Cash flows from operating activities</b>					
Cash generated from operations	23	3,413	3,514	–	–
Interest paid*		(1,185)	(1,208)	–	–
Income tax (paid)/received		(1)	4	–	–
Net cash generated from operating activities		2,227	2,310	–	–
<b>Investing activities</b>					
Interest received		8	10	–	–
Purchases of property, plant and equipment		(6,616)	(6,745)	–	–
Proceeds on disposal of property		75	33	–	–
Capital grants received		764	503	–	–
Net cash inflows/(outflows) from joint ventures		7	(15)	–	–
Capital element of finance lease receipts		–	1	–	–
Net cash used in investing activities		(5,762)	(6,213)	–	–
<b>Financing activities</b>					
Repayments of borrowings	19	(3,070)	(2,738)	–	–
Proceeds from borrowings	19	7,500	6,450	–	–
Increase in collateral posted	19	(93)	(690)	–	–
Increase in collateral held	19	80	(11)	–	–
Cash (paid)/received on settlement of derivatives		(4)	3	–	–
Net cash generated from financing activities		4,413	3,014	–	–
Net increase/(decrease) in cash and cash equivalents		878	(889)	–	–
Cash and cash equivalents at beginning of the year		313	1,202	–	–
Cash and cash equivalents at end of the year		1,191	313	–	–

\* Balance includes the net interest on derivative financial instruments

# NOTES TO THE FINANCIAL STATEMENTS

## FOR THE YEAR ENDED 31 MARCH 2016

### 1. General information

Network Rail Limited is a company limited by guarantee which is incorporated and domiciled in Great Britain and registered in England and Wales under the Companies Act 2006.

The company registration number is 4402220.

The company's registered office is situated at 1 Eversholt Street, London NW1 2DN, United Kingdom.

The company's and its subsidiaries' (together 'the group') principal activities are detailed in the 'About us' section on pages 5-7 Network Rail is organised as a single operating segment for financial reporting purposes.

### 2. Significant accounting policies

#### Basis of accounting

The financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) adopted for use in the European Union, and therefore comply with Article 4 of the European Union International Accounting Standard regulation, and in accordance with interpretations of the IFRS Interpretation Committee.

The financial statements have been prepared on the historical cost basis, except for the revaluation of the railway network to a value determined using an income approach, the revaluation of investment properties, the measurement of certain financial assets and liabilities at fair value through profit and loss (FVTPL) and the measurement of derivative financial instruments at fair value.

The principal accounting policies adopted by the directors are set out below. The policies have been consistently applied to the years presented.

#### Reclassification of Network Rail

In December 2013, the Office for National Statistics announced the reclassification of Network Rail as a Central Government Body in the UK National Accounts and Public Sector Finances with effect from 1 September 2015. This is a statistical change driven by new guidance in the European System of National Accounts 2010 (ESA10). The reclassification does not have any impact on the group's financial reporting requirements under IFRS.

#### Adoption of new and revised standards

The accounting policies adopted in this set of financial statements are consistent with those set out in the annual financial statements for the year to 31 March 2015.

The following accounting standards have not been early adopted by the group but will become effective in future years and are considered to have a material impact on the group that has yet to be assessed:

- i) IFRS 9 'Financial Instruments'. The standard addresses the classification, measurement and recognition of financial assets and liabilities.
- ii) IFRS 15 'Revenue from Contracts with Customers'
- iii) Amendment to IAS 16 'Property, Plant, and Equipment'. This amendment clarifies the acceptable methods of depreciation and amortisation and is effective for periods beginning on or after 1 January 2016
- iv) IFRS 16 'Leases' establishes principles for the recognition, measurement, presentation and disclosure of leases, with the objective of ensuring that lessees and lessors provide relevant information that faithfully represents those transactions
- v) Amendment to IAS 19 (Revised) 'Employee benefits', on defined benefit plans clarifies how high quality corporate bonds used in estimating the discount rate for post-employment benefits should be measured

There are no other IFRS or IFRS Interpretation Committee interpretations not yet effective that would be expected to have a material impact on the group.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 2. Significant accounting policies continued

#### Going concern

The group's business activities, together with the factors likely to affect its future development, performance and position are set out in the 'About us' section on pages 5-7 and 'Operating review' starting on page 14. The financial position of the group, its cash flows, liquidity position and borrowing facilities are described in the chief financial officer's review on pages 10-13.

The group has considerable financial resources together with long-term contracts with a number of customers and suppliers. This includes the DfT loan facility of £30.875bn, which Network Rail intends to draw upon to deliver its investment activities in the next 12 months. Business plans and financial models are used to project cash flows and monitor financial risks and liquidity positions, forecast future funding requirements and other key financial ratios, including those relevant to our network licence. Analysis is undertaken to understand the resilience of the group and its business model to the potential impact of the group's principal risks, or a combination of those risks. This analysis takes account of the availability and effectiveness of the mitigating actions that could realistically be taken to avoid or reduce the impact or occurrence of the underlying risks. In considering the likely effectiveness of such actions, the conclusions of the board's regular monitoring and review of risk management and internal control systems.

In addition, Note 25 to the accounts includes the group's objectives, policies and processes for managing its capital; its financial risk management objectives; details of its financial instruments and hedging activities; and its exposures to credit, liquidity and foreign exchange risk.

After making enquiries, including those detailed above, the directors have a reasonable expectation that the company and the group have adequate resources to continue in operational existence for the foreseeable future. Accordingly, they continue to adopt the going concern basis in preparing the annual report and accounts.

#### Basis of consolidation

Subsidiaries are all entities (including structured entities) over which the group has control. The group controls an entity when the group is exposed to, or has rights to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Transactions with non-controlling interests that do not result in a loss of control are accounted for as equity transactions. In terms of subsidiaries the group:

- Consolidates subsidiaries from the date on which control passes to the group and deconsolidates from the date control ceases;
- Changes the accounting policies of subsidiaries, where necessary, to ensure consistency with the policies adopted by the group;
- Eliminates intercompany transactions and balances in the group results.

#### Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable. Revenue represents amounts derived from the management and provision of assets for use in the operation of the railway, and property rental income net of value added tax. Amounts recognised take account of any performance penalties or bonuses in respect of the year.

Revenue also includes supplements to the access charges and bonuses receivable from, less penalties and rebates payable to, customers and stakeholders. Operating expenditure includes additional contract amounts and bonuses payable to, less penalties receivable from, suppliers and the Office of Rail and Road.

Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable. This is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount.

#### Grants

Grants and other contributions received towards the cost of property, plant and equipment are included in trade and other payables as deferred income and released to the income statement over the estimated useful economic life of the railway network. Revenue grants earned for the management and provision of railway network assets are credited to the income statement in the period to which they relate.

#### Leasing

Leases are classified as finance leases when the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

#### The group as lessor

Amounts due from lessees under finance leases are recorded as receivables at the amount of the group's net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the group's net investment outstanding in respect of the leases.

Rental income from operating leases and initial direct costs are recognised on a straight-line basis over the term of the relevant lease.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 2. Significant accounting policies continued

#### The group as lessee

Assets held under finance leases are recognised at their fair value as assets of the group or, if lower, at the present value of the minimum lease payments. Each is determined at the inception of the lease. The corresponding liability to the lessor is included in the balance sheet as a finance lease obligation. Lease payments are apportioned between finance charges and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Finance charges are charged to the income statement, unless they are directly attributable to qualifying assets, in which case they are capitalised in accordance with the group's general policy on borrowing costs (see below).

Rentals payable under operating leases are charged to the income statement on a straight-line basis over the term of the relevant lease.

#### Foreign currencies

Monetary assets and liabilities expressed in foreign currencies are translated into sterling at the exchange rates prevailing at the balance sheet date. Foreign currency amounts are initially recorded at the exchange rates prevailing on the dates of the transactions. Gains and losses arising on retranslation are included in the income statement for the period and are classified as either operating or financing depending on the nature of the monetary item giving rise to them.

#### Borrowing costs

Borrowing costs directly attributable to the construction of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use.

All other borrowing costs are recognised in the income statement in the period in which they are incurred.

#### Operating profit

Operating profit is stated before finance income, finance costs, other gains and losses, and revaluation movements and profits on disposal of properties.

#### Retirement benefit costs

Payments to the defined contribution retirement benefit scheme are charged as an expense as they fall due.

For the defined benefit schemes, the cost of providing benefits is determined using the projected unit credit method, with full actuarial valuations being carried out at least every three years and updates to these valuations carried out in intervening years. The current service cost and plan administration expenses are recognised as an operating expense in the consolidated income statement.

The group's share of the actuarial gains and losses are recognised in full in the period in which they occur. They are recognised outside the income statement and presented in the statement of comprehensive income.

The net interest cost is the charge in the year on the net defined benefit liability. The charge reflects the passage of time and is recognised as a finance cost in the income statement.

Past service cost and credits are recognised immediately in the consolidated income statement.

The retirement benefit obligation recognised in the balance sheet represents the present value of the defined benefit obligation, as adjusted for unrecognised past service cost, and as reduced by the fair value of scheme assets. Any asset resulting from this calculation is limited to past service cost, plus the present value of available refunds and reductions in future contributions to the plan.

The group reflects its share of the obligation in the financial statements. The IAS 19 deficit, service cost and interest cost therefore represent 60 percent of the total for each of the schemes. Further details on the retirement benefit schemes are provided in note 26.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 2. Significant accounting policies continued

#### Tax

The tax expense represents the sum of the current tax payable and deferred tax. The group's current tax liability is calculated using the tax rates that have been enacted or substantively enacted by the balance sheet date.

Current taxes are based on the taxable results of the group and calculated in accordance with tax rules in the United Kingdom.

Deferred tax is the tax expected to be payable or recoverable on the temporary differences that arise when tax authorities recognise and measure assets and liabilities with rules that differ from those of the consolidated accounts. Deferred taxes are calculated under the balance sheet liability method at the rate of tax expected to prevail, subject to the rate being enacted or substantively enacted by that date, when the temporary differences reverse. Deferred tax is not discounted.

Deferred tax liabilities are recognised for all taxable temporary differences. Deferred tax assets are recognised on all deductible temporary differences to the extent that it is probable that there will be taxable profits available against which the temporary timing differences can be utilised.

Deferred tax is charged or credited in the income statement except when it relates to items charged or credited directly to equity. In this case the deferred tax is also accounted for within equity.

#### Property, plant and equipment – the railway network

The group has one class of property, plant and equipment, being the railway network. This is the integrated network that the group uses to deliver the operation, maintenance and renewal of Great Britain's national rail infrastructure.

#### Valuation methodology

The railway network is carried in the balance sheet at its fair value. As there is no active market in railway infrastructure assets, the company has derived the fair value of the railway network using an income approach. The income approach assesses the discounted future cash flows that are expected to be generated by the railway network, including an assessment of under and outperformance against the current 5-year regulatory determination.

This valuation is carried out twice a year and revaluation gains and losses are reflected in other comprehensive income.

#### Depreciation

The railway network is depreciated on a straight-line basis over its estimated weighted average remaining useful economic life. The estimated weighted average remaining useful economic life of the network is currently 30 years (2015: 30 years). The remaining useful economic lives of network assets are estimated annually, with external verification of the valuation and asset lives carried out where required.

#### Capitalisation of operating costs

In line with IAS 16 Property, plant and equipment all directly attributable costs necessary to deliver the investment programme are capitalised. Employee and other associated costs are capitalised if they arise directly as a result of delivering the investment programme.

#### Investment property

Investment property, which is property held to earn rentals and/or for capital appreciation, is stated at its fair value at the balance sheet date. Gains and losses from changes in the fair value of investment property are included in the income statement for the period in which they arise.

#### Research and development

Research and general development expenditure is charged to the income statement as incurred. Expenditure on the development of specific projects is capitalised only if all of the following conditions are met:

- An asset is created that can be identified
- It is probable that the asset created will generate future economic benefits
- The development cost of the asset can be measured reliably.

#### Intangible assets

An intangible asset is only recognised if it is probable that future economic benefits will flow to the group and its costs can be measured reliably. Intangible assets are measured initially at purchase cost and are amortised on a straight-line basis. Cost includes the original purchase price of the asset and the costs attributable to bringing the asset to its working condition for its intended use. Licences and concessions are amortised over the length of their contractual agreement. Intangible assets are tested for impairment at each balance sheet date by comparing their carrying value and the expected discounted cash flows expected to arise from them over their contractual agreements. If the carrying value exceeds the discounted cash flows expected to arise from the assets, the carrying value would be impaired accordingly.



## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 2. Significant accounting policies continued

#### Inventories

Inventories are stated at the lower of cost and net realisable value. Cost comprises direct materials, direct labour costs and those overheads that have been incurred in bringing the inventories to their present location and condition. Cost is calculated using the weighted average method.

#### Financial instruments

Financial assets and financial liabilities are recognised on the group's balance sheet when the group becomes party to the contractual provisions of the instrument.

#### Financial assets

Financial assets are classified as financial assets at fair value through profit or loss (FVTPL), 'available-for-sale' financial assets, and 'loans and receivables'. Trade receivables do not carry any interest and are stated at their nominal value as reduced by appropriate allowances for estimated irrecoverable amounts, recognised in the income statement. The remaining assets are measured at subsequent reporting dates at fair value.

#### Financial assets at FVTPL

Financial assets are classified as at fair value through profit or loss (FVTPL) where the asset is either held for trading or it is designated at FVTPL. Gains and losses arising from changes in fair value of these assets are recognised in the income statement for the period. A financial asset is classified as held for trading if:

- It has been acquired principally for the purpose of selling in the near future; or
- It is a derivative that is not designated and effective as a hedging instrument.

#### Impairment of financial assets

Financial assets, other than those at FVTPL, are assessed for indicators of impairment at each balance sheet date. Financial assets at FVTPL are stated at fair value with any resultant gain or loss recognised in the income statement. Financial assets are impaired where there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the investment have been reduced.

The carrying amount of the financial asset is reduced by the impairment loss for all financial assets with the exception of trade receivables, which are reduced by appropriate allowances for irrecoverable amounts. If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised, the previously recognised impairment loss is reversed through the income statement. The reversal is only made to the extent that the carrying amount of the investment at the date the impairment is reversed does not exceed what the amortised cost would have been had the impairment not been recognised.

#### Cash and cash equivalents

Cash and cash equivalents comprise bank balances held by the group, commercial paper and money market deposit investments at varying rates. The carrying amount of these assets approximates their fair value.

#### Joint ventures

The results and net assets of joint ventures are incorporated in these financial statements using the equity method of accounting. Investments in joint ventures are carried in the balance sheet at cost and adjusted by post-acquisition changes in the group's share of net assets of joint ventures, less any impairment in the value of individual investments. Losses of a joint venture in excess of the group's interest in a joint venture are not recognised.

#### Financial liabilities

Financial liabilities are classified according to the substance of the contractual arrangements entered into.

#### Financial liabilities at FVTPL

Financial liabilities are classified as at FVTPL where the financial liability is either held for trading or it is designated at FVTPL. A financial liability is classified as held for trading if it is a derivative that is neither designated nor effective as a hedging instrument.

A financial liability, other than a financial liability held for trading, is designated as FVTPL upon initial recognition if such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise exist, in line with International Accounting Standard 39 Financial Instruments: Recognition and Measurement, paragraph 9. Certain bonds, as set out in Note 19 on page 118, are designated at FVTPL. These bonds are hedged by derivative financial instruments as part of a documented risk management strategy. By recognising these bonds and derivatives at FVTPL the recognition inconsistencies that would otherwise exist with regard to these risk management strategies are significantly reduced.

The group derecognises financial liabilities when, and only when, the group's obligations are discharged, cancelled or expire.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 2. Significant accounting policies continued

#### Debt

Debt instruments not designated at FVTPL are initially measured at fair value, net of discount and direct issue costs, and subsequently recognised at amortised cost using straight line amortisation as a proxy for the IAS 39 effective interest rate method. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are accounted for on an accrual basis to the income statement using the effective interest rate method, and are added to the carrying value of the debt instrument to the extent that they are not settled in the period in which they arise.

#### Trade payables

Trade payables are ordinarily not interest bearing and are stated at cost.

#### Derivative financial instruments and hedge accounting

The group's activities expose it primarily to the financial risks of changes in interest rates and foreign currency exchange rates. The group uses interest rate swaps, cross-currency swaps and foreign exchange forward contracts to hedge these exposures. The use of financial derivatives is governed by the group's policies approved by the treasury committee of the board, which provide written principles on the use of financial derivatives.

Derivatives are initially recognised at fair value at the date a derivative contract is entered into and are subsequently remeasured to their fair value at each balance sheet date. Derivatives are presented on the balance sheet in line with their maturity date.

The group designates certain hedging instruments as either cash flow hedges or fair value hedges. At the inception of the hedge relationship, the entity documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking various hedge transactions. Furthermore, at the inception of the hedge and on an ongoing basis, the group documents whether the hedging instrument that is used in a hedging relationship is highly effective in offsetting changes in fair value or cash flows of the hedged item.

Some derivatives, while complying with the group's financial risk management policies, do not qualify for hedge accounting and are therefore classified as held for trading. Changes in the fair value of derivative financial instruments that do not qualify for cash flow hedge accounting are recognised in the income statement as they arise.

Cashflow hedge accounting is discontinued when the hedging instrument expires, is sold, terminated, exercised or no longer meets the criteria for hedge accounting. Where the hedging instrument no longer meets the criteria for hedge accounting, the cumulative gain or loss on the hedging instrument that remains recognised directly in equity from the period when the hedge was effective remains in equity until the forecast transaction occurs.

In the instance where cashflow hedge accounting is discontinued since the forecast transaction is no longer expected to occur, the cumulative gain or loss on the hedging instrument that remains recognised directly in equity from the period where the hedge as effective is recognised in the income statement.

Derivatives embedded in other financial instruments or other host contracts are treated as separate derivatives when their risks and characteristics are not closely related to those of host contracts and the host contracts are not carried at fair value, with gains or losses being reported in the income statement.

Note 20 sets out details of the fair values of the derivative instruments used for hedging purposes. Movements in the hedging reserve in equity are detailed in the statement of changes in equity and in the statement of comprehensive income.

#### Fair value hedges

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recorded in the income statement, together with any changes in the fair value of the hedged item that is attributed to the hedged risk. The change in the fair value of the hedging instrument and the change in the hedged item attributable to the hedged risk are recognised within 'other gains and losses' in the income statement.

#### Cash flow hedges

Changes in the fair value of derivative financial instruments that are designated and effective as hedges of future cash flows are recognised in other comprehensive income, and the ineffective portion is recognised immediately within 'other gains and losses' in the income statement.

#### Provisions

Provisions are recognised when the group has a present obligation as a result of a past event, and it is probable that the group will be required to settle that obligation. Provisions are measured at the directors' best estimate of the expenditure required to settle the obligation at the balance sheet date, and are discounted to present value where the effect is material.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 2. Significant accounting policies continued

#### Critical accounting judgements and key sources of uncertainty

(i) Property, plant and equipment – the railway network: the estimate of the fair value of the railway network is based on an income approach using the regulatory asset base, which equates to the discounted future cash flows associated with the network, adjusted for the net present value of any variances from the Office of Rail and Road's determination using the building block model of regulation. Further details are set out in Note 12, pages 109-111.

(ii) Investment property – an element of the investment property portfolio valuation is determined using the Beacon method. Jones Lang LaSalle provided their assessment of yields for 13 properties in the portfolio. These are then used to produce income multipliers and applied to the rental streams from each of the individual properties in the portfolio to form an overall valuation. Further details are set out in Note 13, page 112.

(iii) Retirement benefit obligations – the group recognises and discloses its retirement benefit obligation in accordance with the measurement and presentational requirement of IAS 19 (Revised) 'Employee Benefits'. The calculations include a number of judgements and estimations in respect of the expected rate of return on assets, the discount rate, inflation assumptions, the rate of increase in salaries and life expectancy among others. Changes in these assumptions can have a significant effect on the value of the retirement benefit obligation. The key assumptions made are set out in Note 26, page 133-138. The total contribution rate payable under the Railway Pension Scheme (RPS) and the Career Average Revalued Earnings (CARE) scheme is normally split in the proportion 60:40 between the group and the members, respectively. The group reflects its share of the contribution in the financial statements.

(iv) Hedge accounting – forward starting sterling interest rate swaps are accounted for as cashflow hedges where it is believed that future sterling issuances are highly probable.

(v) Taxation – the group recognises and discloses its deferred tax assets in accordance with IAS 12. Where it is considered to be probable that deferred tax assets can be matched to future taxable profits then deferred tax assets are recognised, or offset against the overall deferred tax provision as appropriate. This evaluation requires significant judgements to be made, including the uncertainty of the availability of future taxable profits. Further details are set out in Note 10, page 108.

### 3. Revenue

	2016 Group £m	2015 Group £m
Franchised track access and grant income	5,742	5,729
Freight revenue	56	75
Property rental income	274	256
Other income	26	27
Revenue	6,098	6,087

The effect of the performance regimes was a net loss of £146m (2015: net loss of £109m) which led to a reduction in revenue of the respective amount.

### 4. Net operating costs

	2016 Group £m	2015 Group £m
Employee costs (see Note 6)	1,929	1,919
Own costs capitalised	(873)	(731)
Other external charges (including infrastructure maintenance costs)	1,977	1,857
Other operating income and recoveries	(321)	(342)
Net operating costs before depreciation and amortisation	2,712	2,703
Depreciation	1,876	1,732
Capital grants amortised	(97)	(83)
Net operating costs	4,491	4,352

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 5. Profit from operations

Total profit from operations is stated after charging/(crediting):

	2016 Group £m	2015 Group £m
Research and development costs expensed	1	1
Amortisation of intangible assets	1	1
Profit on sale of properties	(69)	(32)
Increase in the fair value of investment properties	(114)	(108)
Cost of inventories recognised as an expense	228	205
Write downs of inventories recognised as an expense	–	1

Amounts payable to auditors

Fees payable to the company's auditors for the audit of the company and consolidated financial statements	0.5	0.5
Fees payable to the company's auditors for audit related services		
– The audit of the company's subsidiaries	0.1	0.1
– Regulatory accounts audit and interim review	0.1	0.1
Total amounts payable to auditors	0.7	0.7

In the financial years ended 31 March 2016 and 2015 there were no fees payable to the company's auditors in respect of non-audit related services.

## 6. Employee costs

The monthly average number of employees (including executive directors) was:

	2016 Group Number	2015 Group Number
Management and operation of the railway	37,481	35,457

	2016 Group £m	2015 Group £m
Their aggregate remuneration comprised:		
Wages and salaries	1,679	1,587
Social security costs	164	155
Defined contribution pension costs (see Note 26)	15	13
Defined benefit pension costs – current service costs (see Note 26)	195	164
Defined benefit pension costs – past service costs (see Note 26)	(124)	–
Total employee costs	1,929	1,919

In the year ended 31 March 2016 key management personnel were all the executive directors and the chair of the board of directors. Full details of their remuneration are included within the annual remuneration report on pages 68-83.

During the year ended 31 March 2015, the key management personnel were comprised of seven directors; two of which left during the year. Three of these directors are executive directors and full details of their remuneration are included within the annual remuneration report on pages 68-83. The remaining two directors had aggregate short-term employee benefits payable of £0.4m and aggregate post-employment benefits payable of £0.1m. No other benefits were paid to these two individuals.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 7. Finance income

	2016 Group £m	2015 Group £m
Interest receivable on investments and deposits	8	10
	8	10

Finance income earned on financial assets analysed by category of asset, is as follows:

	2016 Group £m	2015 Group £m
Loans and receivables (including cash and bank balances)	8	10
	8	10

## 8. Other gains and losses

	2016 Group £m	2015 Group £m
Net ineffectiveness arising from cash flow hedge accounting	(25)	(96)
Fair value gain on fair value hedges	156	719
Fair value loss on carrying value of fair value hedged debt	(159)	(689)
(Loss)/gain arising from fair value hedge accounting	(3)	30
Net (decrease)/increase in fair value of non-hedge accounted debt	(15)	2
(Loss)/gain on derivatives not hedge accounted	(22)	23
(Loss)/gain arising from non-hedge accounting	(37)	25
Total other losses	(65)	(41)

No other gains and losses have been recognised in respect of loans and receivables other than those disclosed in this note. No gains or losses have been recognised on financial liabilities measured at amortised cost other than those disclosed in Note 9.

The movements in the hedged risk adjustment on fair value hedged debt, the movement in fair value of debt designated as fair value through profit and loss and exchange differences on retranslation of foreign currency debt that form part of the above total other gains and losses are in relation to debt issuances disclosed in Note 19, pages 117-119.

## 9. Finance costs

	2016 Group £m	2015 Group £m
Interest on bank loans and overdrafts	10	17
Interest on loan issued by Department of Transport	275	74
Interest on bonds issued under the Debt Issuance Programme	772	862
Interest on derivative instruments	21	97
Defined benefit pension interest cost	49	53
Debt Issuance Programme financial indemnity fee	326	361
Other interest	2	2
Total borrowing costs	1,455	1,466
Less: capitalised interest	(133)	(128)
Total finance costs	1,322	1,338

Borrowing costs are included in the costs of qualifying assets to the extent that the asset is financed by the group. The average rate used during the year was 3.6 percent (2015: 3.7 percent).



## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 10. Tax

	2016 Group £m	2015 Group £m
Current tax:		
Corporation tax charge	-	1
Adjustment in respect of prior years	(6)	1
Total current tax (credit)/charge	(6)	2
Deferred tax:		
Current year (credit)/charge	(187)	836
Effect of rate change	(181)	-
Adjustments in respect of prior years	68	44
Total deferred tax	(300)	880
Total tax (credit)/charge	(306)	882

The tax (credit)/charge for the year can be reconciled to the profit per the income statement as follows:

	2016 Group £m	2015 Group £m
Profit before tax	411	506
Tax at the UK corporation tax rate of 20 percent (2015: 21 percent)	82	106
Adjustments in respect of prior years	58	50
Effect of rate change	(181)	-
Income not subject to tax	(32)	(133)
De-recognition of deferred tax assets - brought forward	4	597
De-recognition of deferred tax assets - current year	9	267
Utilisation of tax losses previously de-recognised	(246)	-
Advance corporation tax previously written off	-	(5)
Tax (credit)/charge for the year	(306)	882

UK corporation tax is calculated at 20 percent (2015: 21 percent). Further reductions to the UK tax rate have been enacted and will reduce the rate to 19 percent with effect from 1 April 2017 and 18 percent by 1 April 2020. The effect of these future rate changes has created a £181m credit in the current year's tax credit.

The group have £32m (2015: £25m) of surplus advance corporation tax carried forward (including a release in relation to the prior year). No deferred tax asset has been provided in respect of this amount.

Under IAS 12 deferred tax assets can only be recognised where it is probable that taxable profits will be available against which the deferred tax asset can be utilised. As in 2015, it remains improbable that Network Rail will return to a level of taxable profits that will allow for recognition of deferred tax assets relating to the trading losses carried forward. Whilst there remains insufficient certainty to recognise all the deferred tax assets with regard to brought forward tax losses we have assessed that £246m has been utilised in the year that was previously derecognised. During this tax year, adjustments were made to prior year tax computations resulting in an additional tax liability. Consequently, previously de-recognised trading losses brought forward, were recognised and utilised against these additional taxable profits.

'Income not subject to tax in the year' is mainly due to the timing differences arising from accounting for derivatives and their associated tax charges/credits.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 11. Intangible assets

Group	Group £m
Cost	
At 1 April 2014, 31 March 2015 and 31 March 2016	78
Accumulated amortisation	
At 1 April 2014	(10)
Charge for the year	(1)
At 31 March 2015	(11)
Charge for the year	(1)
At 31 March 2016	(12)
Carrying amount	
At 31 March 2016	66
At 31 March 2015	67

The intangible assets above relate to the concession to run the operations, maintenance and renewal business of the Channel Tunnel Rail Link, and are held by the wholly owned company Network Rail (High Speed) Limited.

Intangible assets are being amortised over the life of the licence of 83 years to 2086. Amortisation is charged to net operating costs in the income statement.

## 12. Property, plant and equipment – the railway network

	Group £m
Valuation	
At 1 April 2014	49,833
Additions	6,474
Transfer from investment property	4
Depreciation charge for the year	(1,732)
Revaluation in the year	(488)
At 31 March 2015	54,091
Additions	6,684
Transfer from investment property	6
Depreciation charge for the year	(1,876)
Revaluation in the year	(373)
At 31 March 2016	58,532

Given the interdependency of the assets comprising the railway network, the company has concluded that the railway network is considered as a single class of asset. The railway network is carried at its fair value.

As there is no active market in railway infrastructure assets, the company has derived the fair value of the railway network using an income approach. Under this approach the cash flows that the company expects to generate from the railway network are assessed using a market rate of return. This valuation is carried out twice a year and revaluation gains and losses are reflected in other comprehensive income.

The independent rail regulator, the Office of Rail and Road (ORR), determines the revenue requirement of the company using the building block model of regulation. Under this model the company's annual income (received in the form of the network grant and track access charges) comprises:

- (The regulator's assessment of) the efficient costs of operating and maintaining the network
- An allowance for Regulatory Asset Base (RAB) amortisation – qualifying capital expenditure is added to the RAB as incurred and recovered by the company through future amortisation allowances (in order to spread the cost to customers and stakeholders of investment in the railway network over many years).
- An allowed return on the RAB – calculated by applying the rate of return permitted by the ORR (based on its assessment of the market's cost of capital) to the RAB balance.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 12. Property, plant and equipment – the railway network continued

This means that it is possible for the RAB itself to be used as the starting point for a discounted cash flow valuation. The RAB fluctuates in valuation; increasing in value principally as a result of allowances for capital expenditure and inflation indexation, whilst reducing for amortisation. The adjustments may give rise to upwards or downwards revaluations. Further changes are subject to:

- a) Adjustment for any difference between regulatory rate of return and the market cost of capital that a third party investor would use to assess the value of the network; and
- b) Adjustment for forecast future under or out performance against the regulatory determination.

When valuing the network, management is required to consider the value a knowledgeable willing party would place on the network in an arm's length transaction. On the grounds that third party investors are known to value the assets of regulated company's by reference to the RAB, and that the cash flows associated with the regulatory framework are considered sufficiently stable and robust to form the basis of a third party valuation, management has used the RAB as the starting point for its valuation.

Assets funded directly by third party contributions rather than RAB funded are included in the valuation at cost. £3,168m (2015: £2,979m) of the total relates to PPE elements funded outside the regulatory asset base, where cash has already been received, and deferred income recognised to match.

**Discount rate**

The discount rate used in the income approach is the pre-tax rate of return set by the ORR. The ORR performs a periodic review every five years, which leads to the setting of the appropriate rate for the five-year period. The ORR's method encompasses advice from consultants, comparisons to similar infrastructure assets and discussions with Network Rail. Management believes this cost of capital reflects the assumptions that a market participant would make in arriving at a discount rate.

The ORR has determined that for CP5 it will not provide Network Rail with a full market cost of capital. The ORR believes that because Network Rail is primarily funded by debt supported by the Financial Indemnity Mechanism it is not necessary to provide a return on equity. A change in the rate of return affects the allowed return element of Network Rail's income, but the RAB is not affected. The ORR has confirmed that a conventionally funded market participant would receive an allowed return equal to the full market cost of capital.

Should the ORR amend the permitted rate of return in future quinquennial reviews, the regulator would raise or lower the permitted charges to customers so as to achieve the new rate of return. In other words, the cash flows would change but the RAB would not.

The rate of return set by the regulator is, at each quinquennial review date, consistent with the market discount rates for infrastructure assets. Movements in the market cost of capital within a review period would have a small effect on the valuation of the railway network. However, at the start of the next review period, the regulator will re-evaluate the rate of return and reset it to the market rate. Changes in the fair value of the railway network resulting from movements in the market rate would not be permanent – only lasting until the next review.

The valuation includes a reassessment of this rate to determine whether it continues to reflect conditions in the market in between review dates. This assessment is by reference to movements in observable market data, including the risk-free cost of borrowing, and changes in the weighted average cost of capital of listed utilities with similar gearing ratios.

The following table shows the effect of changes in the market discount rate on the carrying value of the railway network and on the depreciation charge. The analysis only considers the effects of movements in the market discount rate until the end of the control period (2019), and not in perpetuity. This is because the regulator performs a review every five years, so the rate applicable to the income streams derived from the railway network will be rebased to the market every five years. The effects of changes in the market discount rate apply equally to increases and to decreases in discount rates.

	Change in cost of capital (basis points)	31 March 2016	31 March 2015
Change in fair value	25	£436m	£528m
	50	£873m	£1,056m
Percentage change in fair value	25	0.8%	1.0%
	50	1.5%	2.0%
Change in annual depreciation charge	25	£15m	£18m
	50	£29m	£35m

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 12. Property, plant and equipment – the railway network continued

#### Forecast performance variations

In assessing the value of the railway network, management considers that a knowledgeable willing third party would take into account the perceived fairness and deliverability of the current regulatory determination. Accordingly management makes an addition (or deduction) to the valuation for its assessment of the likely ORR determination in respect of the financial consequences of anticipated future out (or under) performance against the regulatory determination.

Although the ORR has not yet formally adopted the Hendy Baseline as the baseline against which it will measure the company's future performance on enhancements, the regulator's intention to do so is stated in the Regulatory Accounting Guidelines (RAGs) dated May 2016. Separately the regulator has confirmed that had a third party asked them to confirm their forward policy at the reporting date, they would have advised them of their intentions reflected in the May 2016 RAGs. On this basis management have applied the Hendy Baseline in assessing the level of anticipated future out (or under) performance and its financial consequences.

At 31 March 2016 the valuation included £726m of projected financial underperformance, which is expected to crystallise in the income statement or result in the ineligibility of additions to the RAB in future accounting periods (2015: £1,006m). The downwards movement of £280m on the prior year variances is due to performance that crystallised in the year to 31 March 2016.

The most significant areas of projected underperformance are renewals (£554m) and operating expenditure (£566m), and having applied the Hendy Baseline as the regulatory performance baseline, projected underperformance on enhancements is now £123m. Underperformance is partially offset by projected outperformance in financing (£630m) as a result of favourable interest rate movements.

The areas of performance subject to greatest estimation uncertainty are renewals and enhancements due to the complexities of forecasting cost and volume outcomes, and the Anticipated Final Cost of projects respectively.

The group estimates that a one percent increase in the Anticipated Final Cost of enhancement projects would result in additional financial underperformance of £26m, and a one percent increase in the unit cost of renewals would result in additional financial underperformance of £21m.

#### Critical judgements

The valuation includes the following critical judgements:

- a) The regulatory framework and associated cash flows remain sufficiently stable and robust to form the basis of a third party valuation.
- b) The ORR has committed to providing a market cost of capital return to a conventionally funded owner and operator of the network and the fair value calculation has been prepared on that basis.
- c) Management's assessment of the deliverability of the current regulatory determination is a good indication of how other management groups would perform against the determination.
- d) The deliverability of the current 5-year regulatory determination does not have any implication for the deliverability of future determinations (i.e. the ambition of the regulator at the start of each Control Period is to set the regulatory determination at a level which is challenging but achievable).
- e) The residual value of the railway network is immaterial to assessing its annual depreciation charge. This is because evidence from other disused parts of the railway network indicates that the residual value is negligible and includes significant onerous obligations. In addition, the value of the land on which the railway network stands is immaterial to the value of the assets that comprise the network.

At 31 March 2016, the group had entered into contractual commitments in respect of capital expenditure amounting to £2,807m (2015: £3,405m).

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 13. Investment property

	Group £m
Fair value	
At 1 April 2014	856
Additions	23
Disposals	(1)
Transfers to property, plant and equipment	(4)
Increase in fair value in the year	108
At 31 March 2015	982
Additions	25
Disposals	(6)
Transfer to property, plant and equipment	(6)
Increase in fair value in the year	114
At 31 March 2016	1,109

The market values of the group's investment properties at 31 March 2016 have been arrived at on the basis of a valuation carried out at that date with Jones Lang LaSalle, external valuers not connected with the group. The fair value of the group's investment property portfolio is deemed to be the market value.

The valuation, which conforms to International Valuation Standards, was arrived at by splitting the portfolio between one-off individual properties to be valued separately and the remainder of the portfolio to be valued under the Beacon method.

Jones Lang LaSalle provided independent valuations of 17 one-off individual properties (2015: 17), amounting to 15 percent (2015: 15 percent) of the total valuation. The balance of the estate was valued under the Beacon method by splitting the portfolio into 13 homogeneous classes (2015: 13) of property and areas, assuming that the current passing rent received from these properties are in line with market rent. Jones Lang LaSalle independently assessed the appropriate yield to be adopted within each of these classes and areas. This enabled the directors to estimate market values by applying the provided yields to the net rental income from these properties, in accordance with a standard UK investment property valuation.

The property rental income earned by the group from its investment property, all of which is leased out under operating leases, amounted to £90m (2015: £80m). Direct operating expenses arising on the investment properties in the year amounted to £6m (2015: £6m).

The group's investment properties are let on a tenant repairing basis. The group's maintenance obligations are limited to common areas and vacant property units.



## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 14. Investments in subsidiaries and joint ventures

Principal subsidiaries affecting the amounts shown in the financial statements are included in the list below.

Principal subsidiaries	Country of incorporation	Proportion of all classes of issued share capital owned	Principal activities
Network Rail Infrastructure Limited	Great Britain	100%	Operation, maintenance and renewal of the national railway infrastructure
Network Rail Insurance Limited	Guernsey	100%	Insurance
Network Rail Holdco Limited*	Great Britain	100%	Holding company of Network Rail Infrastructure Limited
Network Rail (High Speed) Limited	Great Britain	100%	Holds St Pancras concession and High Speed Railway Services Agreement
Network Rail Development Limited	Great Britain	100%	Holds 49.95% of each of the property joint ventures Solum Regeneration Limited Partnership and Solum Regeneration Epsom Limited Partnership
Network Rail Pension Trustee Limited	Great Britain	Company limited by guarantee	Administration of defined contribution and CARE defined benefit pension schemes
Network Rail Consulting Limited	Great Britain	100%	International rail consultancy
Network Rail Certification Body Limited	Great Britain	100%	Conformity assessment services to the rail industry
Network Rail (VY1) Limited	Great Britain	100%	Holds land required for works access
Network Rail (VY2) Limited	Great Britain	100%	Holds land required for works access

## Shares held by a trustee

Network Rail Infrastructure Finance PLC	Great Britain	Shares held by HSBC Trustee (C.I.) Limited	Issuer of the Debt Issuance Programme
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\* Directly owned by Network Rail Limited company.

The shares in Network Rail Infrastructure Finance PLC are held by HSBC Trustee (C.I.) Limited, for charitable purposes. The sole purpose of this company is to act as a special purpose funding vehicle. The company is treated as a subsidiary for accounting purposes as proceeds from debt issuances are lent on to Network Rail Infrastructure Limited and are used to finance the activities and to refinance the existing debt of the group.

Joint ventures	Country of incorporation	Proportion of all classes of issued share capital owned	Principal activities
Solum Regeneration (GP) Limited	Great Britain	50%	Holds 0.1% of the property joint venture Solum Regeneration Limited Partnership
Solum Regeneration Epsom (GP) Limited	Great Britain	50%	Holds 0.1% of the property joint venture Solum Regeneration (Epsom) Limited Partnership
Solum Regeneration Limited Partnership	Great Britain	50%	Property development
Solum Regeneration (Epsom) Limited Partnership	Great Britain	50%	Property development
Solum Regeneration Christchurch LLP	Great Britain	50%	Property development
The Station Office Network LLP	Great Britain	50%	Provides flexible office space, meeting rooms and virtual offices
West Hampstead Limited Partnership	Great Britain	50%	Property development

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 14. Investment in subsidiaries and joint ventures continued

	2016 Group £m	2015 Group £m
At 1 April	42	27
Investment in joint ventures	7	22
Provision for investment in joint ventures	(22)	-
Share of profit/(loss)	8	(7)
At 31 March	35	42

## 15. Inventories

	2016 Group £m	2015 Group £m
Raw materials and consumables	205	198

As at 31 March 2016 a provision of £24m was held in respect of inventories (2015: £26m).

## 16. Finance lease receivables

	Minimum lease payments		Present value of minimum lease payments	
	2016 Group £m	2015 Group £m	2016 Group £m	2015 Group £m
Amounts receivable under finance leases:				
Within one year	1	1	1	1
In the second to fifth years inclusive	-	-	-	-
	1	1	1	1
Less: unearned finance income	-	-	n/a	n/a
Present value of minimum lease payments receivable	1	1	1	1
Analysed as:				
Current finance lease receivables	1	1	1	1
Non-current finance lease receivables	-	-	-	-
	1	1	1	1

The group has entered into a finance lease arrangement with a third party to sell various types of telecommunications equipment. The lease is due to expire in 2017. The interest rate inherent in the lease is fixed at the contract date for all of the lease term. The average effective interest rate contracted is approximately 8.4 percent per annum for the life of the lease.

Finance lease receivable balances are secured over the equipment leased. The group is not permitted to sell or repledge the collateral in the absence of default by the lessee.

The fair value of the group's finance lease receivables at 31 March 2016 is estimated at £1m (2015: £1m) using a 0.85 percent (2015: 1.07 percent) discount rate based on the average cost of capital associated with the remaining life of the lease.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 17. Trade and other receivables

	2016 Group £m	2015 Group £m	2016 Company £m	2015 Company £m
<b>Non-current assets: other receivables</b>				
Regulatory income receivable	73	109	–	–
<b>Current assets: trade and other receivables</b>				
Trade receivables	348	226	–	–
Capital grants receivable	120	75	–	–
Other taxation and social security	122	143	–	–
Other receivables	71	59	–	–
Collateral placed with banking counterparties	819	726		
Prepayments and accrued income	240	246	–	–
	1,720	1,475	–	–

Trade receivables include an allowance for estimated irrecoverable amounts from the supply of services of £13m (2015: £12m). This allowance has been made by reference to past default experience. Average debtor days were 57 days (2015: 50 days).

The directors consider that the carrying value of trade and other receivables approximates to their fair value. All balances are non-interest bearing and denominated in sterling. The group provides fully for receivables overdue by over six months because historical experience is that such receivables are generally not recoverable. All other trade receivables are provided for on the basis of estimated irrecoverable amounts, determined by reference to past default experience.

The group's credit risk is primarily attributable to its trade receivables. Around 95 percent of the group's income is received from train operating companies and in the form of revenue grants from Government. Franchises are issued to train operating companies by the Department for Transport in England and Wales and Transport Scotland in Scotland. The group believes that amounts receivable from Government and the train operating companies represent a high level of credit quality. This is because in the extraordinary circumstance that a train operating company were to be unable to meet its obligations then provisions in the franchise agreements allow the Department for Transport to take over services at any time. Before accepting any other new customer, the group uses an external credit scoring system to assess the potential customer's credit quality.

Included in the group's trade receivable balance are amounts totalling £30m (2015: £49m) which are past due at the reporting date for which the group has not provided as there has not been a significant change in the credit quality and the amounts are still considered recoverable. The group does not hold collateral over these balances. The average age of these receivables is 64 days (2015: 32 days).

The following table shows the age of financial assets for the group which are past due and for which no specific provision has been raised:

	2016 Group £m	2015 Group £m	2016 Company £m	2015 Company £m
Past due by 1 – 28 days	17	35	–	–
Past due by 29 – 56 days	5	7	–	–
Past due by 57 – 84 days	2	1	–	–
Past due by 85 – 180 days	6	6	–	–
	30	49	–	–

Trade receivables of £10m (2015: £11m) are overdue by six months or more, and have been fully provided for.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 18. Trade and other payables

	2016 Group £m	2015 Group £m	2016 Company £m	2015 Company £m
<b>Current liabilities: trade and other payables</b>				
Trade payables	652	534	–	–
Collateral received from banking counterparties	330	250	–	–
Payments received on account	28	23	–	–
Other payables	307	295	–	–
Other interest accruals	251	240	–	–
Other accruals and deferred income	1,797	1,809	–	–
	3,365	3,151	–	–

The average credit period taken for trade purchases is 31 days (2015: 25 days).

Before accepting new suppliers, and upon letting significant contracts, the group evaluates suppliers' creditworthiness using external credit scoring systems and other relevant data.

The directors consider that the carrying value of trade and other payables approximates to their fair value. All balances are ordinarily non-interest bearing and denominated in sterling.

	2016 Group £m	2015 Group £m	2016 Company £m	2015 Company £m
<b>Non-current liabilities: other payables</b>				
Capital grants deferred income	3,300	3,089	–	–
Other payables	1,496	1,040	–	–
	4,796	4,129	–	–

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 19. Borrowings

	2016 Group £m	2015 Group £m	2016 Company £m	2015 Company £m
Net borrowings by instrument:				
Cash and cash equivalents*	1,191	313	–	–
Collateral placed with counterparties	819	726	–	–
Collateral received from counterparties	(330)	(250)	–	–
Bank loans	(477)	(476)	–	–
Bonds issued under the Debt Issuance Programme (less unamortised premium, discount and fees)	(28,869)	(31,622)	–	–
Borrowings issued by the Department for Transport	(13,940)	(6,450)	–	–
	(41,606)	(37,759)	–	–
Movement in net borrowings:				
At the beginning of the year	(37,759)	(32,987)	–	–
Increase/(decrease) in cash and cash equivalents	878	(940)	–	–
Decrease in overdrafts	–	51	–	–
Proceeds from borrowings	(7,500)	(6,450)	–	–
Repayments of borrowings	3,070	2,738	–	–
Capital accretion	(221)	(226)	–	–
Exchange differences	(3)	23	–	–
Movement in collateral placed with counterparties	93	690	–	–
Movement in collateral received from counterparties	(80)	11	–	–
Fair value and other movements	(84)	(669)	–	–
At the end of the year	(41,606)	(37,759)	–	–
Net borrowings are reconciled to the balance sheet as set out below:				
Cash and cash equivalents*	1,191	313	–	–
Collateral placed with counterparties (included in trade and other receivables)	819	726	–	–
Collateral received from counterparties (included in trade and other payables)	(330)	(250)	–	–
Borrowings included in current liabilities	(2,685)	(3,133)	–	–
Borrowings included in non-current liabilities	(40,601)	(35,415)	–	–
	(41,606)	(37,759)	–	–

\* Includes collateral received from derivative counterparties of £330m (2015: £250m).



## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 19. Borrowings continued

	2016 Group £m	2015 Group £m	2016 Company £m	2015 Company £m
1.085% sterling index linked bond due 2052	126	124	–	–
0% sterling index linked bond due 2052	133	130	–	–
1.003% sterling index linked bond due 2051	24	23	–	–
0.53% sterling index linked bond due 2051	121	120	–	–
0.517% sterling index linked bond due 2051	121	120	–	–
0% sterling index linked bond due 2051	133	130	–	–
0.678% sterling index linked bond due 2048	119	118	–	–
1.125% sterling index linked bond due 2047	5,245	5,191	–	–
0% sterling index linked bond due 2047	83	81	–	–
1.1335% sterling index linked bond due 2045	49	48	–	–
1.5646% sterling index linked bond due 2044	274	271	–	–
1.1565% sterling index linked bond due 2043	55	54	–	–
1.1795% sterling index linked bond due 2041	67	66	–	–
1.2219% sterling index linked bond due 2040	270	267	–	–
1.2025% sterling index linked bond due 2039	73	72	–	–
4.6535% sterling bond due 2038	100	100	–	–
1.375% sterling index linked bond due 2037	5,122	5,063	–	–
4.75% sterling bond due 2035	1,229	1,228	–	–
1.6492% sterling index linked bond due 2035	410	406	–	–
4.375% sterling bond due 2030	871	871	–	–
1.75% sterling index linked bond due 2027	5,056	5,019	–	–
4.615% Norwegian krone bond due 2026*	52	52	–	–
4.57% Norwegian krone bond due 2026*	15	15	–	–
1.9618% sterling index linked bond due 2025	346	343	–	–
4.75% sterling bond due 2024	736	735	–	–
3% sterling bond due 2023	397	397	–	–
2.76% Swiss franc bond due 2021	217	208	–	–
2.315% Japanese yen bond due 2021*	69	63	–	–
2.28% Japanese yen bond due 2021*	69	63	–	–
2.15% Japanese yen bond due 2021*	69	63	–	–
4.625% sterling bond due 2020	998	998	–	–
1.75% US dollar bond due 2019**	710	684	–	–
0.875% US dollar bond due 2018**	1,216	1,167	–	–
Floating rate US dollar bond due 2017**	347	337	–	–
0.75% US dollar bond due 2017**	865	836	–	–
1% sterling bond due 2017	748	747	–	–
6% Australian dollar bond due 2016	267	257	–	–
0.625% US dollar bond due 2016**	868	839	–	–
1.25% US dollar bond due 2016**	696	679	–	–
1.125% sterling bond due 2016*	503	504	–	–
Floating rate sterling bond due 2015	–	600	–	–
4.4% Canadian dollar bond due 2015	–	266	–	–
0.625% US dollar bond due 2015**	–	1,011	–	–
4.875% sterling bond due 2015	–	1,256	–	–
	28,869	31,622	–	–

\* Bonds treated as fair value through profit and loss.

\*\* Bonds in a fair value hedge arrangement.

All other bonds are shown net of unamortised discount and fees.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 19. Borrowings continued

Bank loans are analysed as follows:

	2016 Group £m	2015 Group £m	2016 Company £m	2015 Company £m
Index-linked European Investment Bank due 2036 (£229m) and 2037 (£226m)	459	454	459	454
Barclays Bank due 2017 repayable by instalments	18	22	18	22
	477	476	477	476

At 31 March 2016 and 2015 the group had the following undrawn committed borrowing facilities:

	2016 Drawn £m	2016 Undrawn £m	2016 Total £m	2015 Drawn £m	2015 Undrawn £m	2015 Total £m
Department for Transport loan facility	13,950	16,925	30,875	6,450	23,725	30,175
	13,950	16,925	30,875	6,450	23,725	30,175

Undrawn committed facilities expire as follows:

	2016 Group £m	2015 Group £m
Within one year	–	–
Within two to five years	16,925	23,725
After five years	–	–
	16,925	23,725

On 4 July 2015 the Secretary of State for Transport provided the group with a loan facility of £30,175m expiring on 31 March 2019. On 1 September 2015 the group terminated its standby facility A. In addition the Secretary of State for Transport has provided unlimited financial indemnity in respect of borrowings under the Debt Issuance Programme which expires in 2052.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 20. Derivative financial instruments

	2016 Group	
	Fair value £m	Notional amounts £m
Derivative financial instrument assets		
Cash flow hedges		
Cross-currency swaps to hedge debt issued under the Debt Issuance Programme	217	331
Forward starting interest rate swaps	–	–
Fair value hedges		
Cross-currency swaps to hedge debt issued under the Debt Issuance Programme	505	4,198
Non-hedge accounted derivatives		
Cross-currency swaps to hedge debt issued under the Debt Issuance Programme	93	198
Interest rate swaps	141	7,521
Forward foreign exchange contracts	7	109
	963	12,357
Included in non-current assets	654	9,910
Included in current assets	309	2,447
	963	12,357
Derivative financial instrument liabilities		
Cash flow hedges		
Interest rate swaps	(39)	333
Forward starting interest rate swaps	(826)	9,241
Fair value hedges		
Cross-currency swaps to hedge debt issued under the Debt Issuance Programme	–	–
Non-hedge accounted derivatives		
Interest rate swaps to hedge debt issued under the Debt Issuance Programme	(541)	7,476
Forward foreign exchange contracts	(2)	44
	(1,408)	17,094
Included in current liabilities	(9)	222
Included in non-current liabilities	(1,399)	16,872
	(1,408)	17,094

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 20. Derivative financial instruments continued

	2015 Group	
	Fair value £m	Notional amounts £m
Derivative financial instrument assets		
Cash flow hedges		
Cross-currency swaps to hedge debt issued under the Debt Issuance Programme	228	581
Forward starting interest rate swaps	–	–
Fair value hedges		
Cross-currency swaps to hedge debt issued under the Debt Issuance Programme	399	5,161
Non-hedge accounted derivatives		
Cross-currency swaps to hedge debt issued under the Debt Issuance Programme	69	198
Interest rate swaps	71	3,633
Forward foreign exchange contracts	4	71
	771	9,644
Included in non-current assets	721	8,670
Included in current assets	50	974
	771	9,644
Derivative financial instrument liabilities		
Cash flow hedges		
Interest rate swaps	(59)	583
Forward starting interest rate swaps	(779)	13,282
Fair value hedges		
Cross-currency swaps to hedge debt issued under the Debt Issuance Programme	–	–
Non-hedge accounted derivatives		
Interest rate swaps to hedge debt issued under the Debt Issuance Programme	(198)	4,033
Forward foreign exchange contracts	(7)	130
	(1,043)	18,028
Included in current liabilities	(5)	214
Included in non-current liabilities	(1,038)	17,814
	(1,043)	18,028

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 21. Provisions

	Legal £m	Restructuring £m	Other £m	Total £m
At 1 April 2015	5	1	44	50
Charge for the year	-	-	38	38
Utilised in the year	(3)	(1)	(8)	(12)
Release for the year	(1)	-	(4)	(5)
At 31 March 2016	1	-	70	71
Included in current liabilities				71

The group has also provided against a number of claims arising from interpretations of legal contracts or past events for which settlement is expected to be achieved in the next year, but could be deferred to future years depending on the legal interpretation of rights and responsibilities under the contracts as well as commercial negotiation. The provisions that have been recorded represent the directors' best estimate of the expenditure required to settle the obligation, with the benefit of legal advice.

Provisions are measured at the directors' best estimate of the expenditure required to settle the obligation at the balance sheet date. The nature of these claims means that there is some uncertainty with regard to the value that they will be settled at. If the outcomes of the claims are different to the assumptions underpinning the directors' best estimates then a further liability may arise.

## Contingent liability

Provisions are measured at the directors' best estimate of the expenditure required to settle the obligation at the balance sheet date. The nature of these claims means that there is some uncertainty with regard to the value that they will be settled at. If the outcomes of the claims are different to the assumptions underpinning the directors' best estimates then a further liability may arise.

The group's lawyers have advised that the provisions for the claims are realistic and no provision has been made for contingent liabilities as the directors do not consider there is any probable loss. As envisaged by paragraph 92 of IAS 37 the directors consider that further disclosure regarding the nature and amount of the disputes beyond that disclosed here could be expected to prejudice seriously the position of the group.

## 22. Deferred tax

The following are the deferred tax liabilities and assets recognised by the group and movement thereon during the current and prior year.

Group	Accelerated tax depreciation £m	Revaluation of railway network £m	Short-term timing differences including retirement benefit obligations £m	Derivatives £m	Tax losses £m	Total £m
At 1 April 2014	2,477	848	(301)	64	(597)	2,491
Charge/(credit) to income	274	-	30	(21)	(267)	16
(Credit)/charge to other comprehensive income	-	(89)	(33)	(179)	-	(301)
De-recognition of deferred tax asset to income	-	-	-	-	864	864
De-recognition of deferred tax asset to equity	-	-	-	160	-	160
At 31 March 2015	2,751	759	(304)	24	-	3,230
(Credit)/charge to income	(19)	-	(1)	(31)	178	127
(Credit)/charge to other comprehensive income	-	(76)	18	(38)	-	(96)
Impact of change in tax rate to income	(262)	-	19	(2)	64	(181)
Impact of change in tax rate to equity	-	(75)	11	17	-	(47)
De-recognition of deferred tax asset to equity	-	-	-	21	-	21
Utilisation of losses previously derecognised	-	-	-	(4)	(242)	(246)
At 31 March 2016	2,470	608	(257)	(13)	-	2,808

Certain deferred tax assets and liabilities have been offset. The following is the analysis of the gross deferred tax balances:

	2016 £m	2015 £m
Deferred tax liabilities	3,078	3,534
Deferred tax assets	(270)	(304)
	2,808	3,230



## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 22. Deferred tax continued

Under IAS 12 deferred tax assets can only be recognised where it is probable that taxable profits will be available against which the deferred tax asset can be utilised. During the year Network Rail has derecognised the deferred tax asset in respect of tax losses and derivatives. Deferred tax assets in respect of current year losses on derivatives of £21m has been derecognised.

## 23. Notes to the statement of cash flows

	2016 Group £m	2015 Group £m	2016 Company £m	2015 Company £m
Profit before tax	411	506	–	–
Adjustments for:				
Property revaluation movements and profits on disposal	(183)	(140)	–	–
Fair value loss on derivatives and debt	65	41	–	–
Net interest expense	1,314	1,328	–	–
Depreciation of the railway network	1,876	1,732	–	–
Amortisation of capital grants	(97)	(83)	–	–
Amortisation of intangible assets	–	1	–	–
Movement in retirement benefit obligations	(36)	56	–	–
Decrease in provisions	21	(93)	–	–
Operating cash flows before movements in working capital	3,371	3,348	–	–
Increase in inventories	(7)	(25)	–	–
(Increase)/decrease in receivables	(114)	157	–	–
Increase in payables	163	34	–	–
Cash generated from operations	3,413	3,514	–	–

## Cash and cash equivalents

Cash and cash equivalents (which are represented as a single class of assets on the face of the balance sheet) comprise cash at bank, collateral, commercial paper and money market deposit investments, all of which are on call with the exception of short-term deposits. There were £363m of short term deposits held as at 31 March 2016 with an average term of 22 days from the balance sheet date (2015: no amounts held on short term deposits). Cash and money market deposits had an average maturity of 48 days (2015: 35 days) from the balance sheet date.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 24. Operating lease arrangements

	2016 Group £m	2015 Group £m
<b>The group as lessee</b>		
Minimum lease payments under operating leases recognised in the income statement in the year	58	47

At the balance sheet date, the group had outstanding commitments for future minimum lease payments under non-cancellable operating leases, which fall due as follows:

	2016 Group £m	2015 Group £m
Within one year	41	42
In the second to fifth years inclusive	80	94
After five years	117	19
	238	155

Operating lease payments largely represent rentals payable by the group for certain of its office properties. Leases are negotiated for an average term of seven years and rentals fixed for an average of three years. In addition rentals are paid for land adjacent to the railway required for maintenance and renewal activities.

**The group as lessor**

Operating lease rentals earned in the year by the group were £341m (2015: £279m). This amount includes property rental income of £274m (2015: £256m), as disclosed in Note 3.

At the balance sheet date, the group had contracted with customers for the following future minimum lease payments:

	2016 Group £m	2015 Group £m
Within one year	284	390
In the second to fifth years inclusive	1,119	903
After five years	2,468	2,219
	3,871	3,512

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 25. Funding and financial risk management

#### Introduction

The group is almost entirely debt financed. Debt has been issued through the special purpose financing company Network Rail Infrastructure Finance PLC, which is not a member of the Network Rail Limited group, but is treated as a subsidiary for accounting purposes. The majority of the group's existing debt has been issued by Network Rail Infrastructure Finance PLC under the Debt Issuance Programme which is rated AAA by Standard & Poor's, Aa1 (stable outlook) by Moody's and AA+ (stable outlook) by Fitch. The Debt Issuance Programme is supported by a financial indemnity from the Secretary of State for Transport which expires in 2052.

Debt has been issued in a number of currencies and a range of maturities which gives rise to interest rate, foreign currency and inflation risk. Financial risk management aims to mitigate these risks.

#### Reclassification of Network Rail

In December 2013, the Office for National Statistics announced the reclassification of Network Rail as a Central Government Body in the UK National Accounts and Public Sector Finances with effect from 1 September 2014. This is a statistical change driven by new guidance in the European System of National Accounts 2010 (ESA10).

As part of Network Rail's formal reclassification to the public sector, an arrangement was agreed whereby funding would be provided by the DfT in the form of a loan made directly to Network Rail Infrastructure Limited, to fund the continuing programme of long-term investment in the national rail network. Network Rail Infrastructure Finance PLC does not anticipate issuing further bonds in the foreseeable future and its debt service obligations would be met through repayments of the intercompany loan by Network Rail Infrastructure Limited.

All of the outstanding bonds under the Debt Issuance Programme, including nominal and index-linked benchmarks and private placements in all currencies, will continue to benefit from the direct and explicit guarantee from the UK Government under the Financial Indemnity Mechanism. In the unlikely event that the DfT withdraws or breaches its obligations on the loan facility to Network Rail the group may issue further bonds or commercial paper to meet funding requirements.

#### Externally imposed capital requirements

The Network Rail group is almost entirely debt financed and therefore manages its debt as the key part of its capital. Network Rail manages its debt in relation to the Regulatory Asset Base (RAB). This is an important business ratio because the value of the RAB and the amount of debt that the business can sustain are, generally speaking, closely related. Network Rail's debt cannot exceed the value of the RAB; a debt to RAB ratio of significantly less than 100 percent indicates that the business is more robust to future cost shocks (because it is more likely to be able to service additional debt that may arise from losses incurred).

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 25. Funding and financial risk management continued

The RAB and regulatory debt are reconciled to property, plant and equipment (in Note 12) and net debt (in Note 19) as follows:

	2016 £m	2015 £m
Net debt per Note 19	(41,606)	(37,759)
Revaluations and remeasurements	1,428	1,254
Regulatory net debt	(40,178)	(36,505)

The RAB used to calculate the debt to RAB ratio is:

	2016 £m	2015 £m
Railway network per Note 12	58,532	54,091
Investment properties per Note 13	1,109	982
Capital grant funded assets	(3,168)	(2,979)
Other fair value adjustments	704	957
RAB	57,177	53,051

The debt to RAB ratio at 31 March 2016 and 2015 was as follows:

	2016	2015
Debt: RAB ratio	70.3%	68.8%

The debt to RAB ratio is based on regulatory net debt, which recognises debt at hedged rates.

The group's subsidiary, Network Rail Infrastructure Limited, owns and operates Britain's rail network under licence from the ORR. The licence imposes conditions on the company with regard to its net debt. Should the value of the company's qualifying net debt exceed 75 percent of the ORR's RAB then the ORR will be formally notified.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 25. Funding and financial risk management continued

## Summary table of financial assets and liabilities

The following table presents the carrying amounts and the fair values of the group's financial assets and liabilities at 31 March 2016 and 31 March 2015.

The fair values of the financial assets and liabilities are recorded at the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale. The following methods and assumptions were used to estimate the fair values where balances were not already held at fair value:

- Bank loans – based on market data at the balance sheet date and the net present value of discounted cash flows
- Certain bonds issued under the Debt Issuance Programme – based on market data at the balance sheet date. Where market data is not available valuations have been obtained from dealing banks.

For cash and cash equivalents, finance lease receivables, trade and other payables and trade and other receivables, fair value equates to carrying value.

Group	2016		2015	
	Carrying value £m	Fair value £m	Carrying value £m	Fair value £m
<b>Financial assets</b>				
Cash and cash equivalents as loans and receivables	1,191	1,191	313	313
<b>Other non-derivative financial assets</b>				
Finance lease receivables	1	1	1	1
Investment property	1,109	1,109	982	982
Plant, property and equipment - the railway network	58,532	58,532	54,091	54,091
Trade and other receivables (less prepayments and accrued income and other taxation and social security)	1,430	1,430	1,195	1,195
<b>Derivatives</b>				
Derivatives designated as cash flow hedging instruments	217	217	228	228
Derivatives designated as fair value hedging instruments	505	505	399	399
Other derivatives as fair value through profit and loss	241	241	144	144
Total derivatives	963	963	771	771
<b>Total financial assets</b>	<b>63,226</b>	<b>63,226</b>	<b>57,353</b>	<b>57,353</b>
<b>Financial liabilities</b>				
<b>Financial liabilities held at amortised cost</b>				
Bank loans	(477)	(766)	(476)	(753)
Bonds issued under the Debt Issuance Programme	(28,093)	(31,649)	(30,862)	(35,654)
Borrowings issued by Department for Transport	(13,940)	(14,293)	(6,450)	(6,624)
<b>Financial liabilities designated as fair value through profit and loss</b>				
Bonds issued under the Debt Issuance Programme	(776)	(776)	(760)	(760)
Total borrowing	(43,286)	(47,484)	(38,548)	(43,791)
<b>Trade and other payables at amortised cost</b>	<b>(4,616)</b>	<b>(4,616)</b>	<b>(3,951)</b>	<b>(3,951)</b>
<b>Derivatives</b>				
Derivatives designated as cash flow hedging instruments	(865)	(865)	(838)	(838)
Derivatives designated as fair value hedging instruments	–	–	–	–
Other derivatives as fair value through profit and loss	(543)	(543)	(205)	(205)
Total derivatives	(1,408)	(1,408)	(1,043)	(1,043)
<b>Total financial liabilities</b>	<b>(49,310)</b>	<b>(53,508)</b>	<b>(43,542)</b>	<b>(48,785)</b>



## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 25. Funding and financial risk management continued

#### Derivatives

The group (including the group's special purpose financing company, Network Rail Infrastructure Finance PLC) uses derivative financial instruments to reduce exposure to foreign exchange risk and interest rate movements. The group does not use derivative financial instruments for speculative purposes. Certain derivatives are designated as hedges, and those derivatives that are not hedge accounted are fair valued immediately through the income statement. The group has a comprehensive risk management process.

The board, through a treasury sub-committee (the treasury committee), has approved and monitors the risk management processes, including documented treasury policies, counterparty limits, controlling and reporting structures.

The use of derivative instruments can give rise to credit and market risk. Market risk is the possibility that future changes in foreign exchange rates and interest rates may make a derivative more or less valuable. Since the group uses derivatives for risk management, market risk relating to derivative instruments will principally be offset by changes in the valuation of the underlying assets, liabilities or transactions being hedged.

#### Credit risk

The credit risk for all classes of derivative financial instruments and other funds is limited because counterparties are banks with high credit ratings assigned by international credit rating agencies. The treasury committee authorises the policy for setting counterparty limits based on credit ratings. The group spreads its exposure over a number of counterparties, and have strict policies on how much exposure can be assigned to each counterparty. The amount of the group's investments varies depending on the level of surplus liquidity the group chooses to hold at any point in time. However, because of the strict criteria governing counterparty suitability the risk is mitigated. The treasury committee also authorises the investment and borrowing instruments that can be used.

For debt designated as fair value through profit and loss (FVTPL) there has been no change in carrying value as a result of changes in the group's credit risk. The loss in the income statement arising from the remeasurement of FVTPL debt items of £15m (2015: £2m gain) are all attributable to changes in market risk.

The credit risk with regard to all classes of derivative financial instruments entered into before 1 January 2013 is limited because Network Rail has arrangements in place which limit each bank to a threshold (based on credit ratings), which if breached requires the bank to post collateral in cash or eligible securities. The members of the banking group are required to post collateral on positive mark to market swaps above the threshold. In December 2012 the group entered into new collateral agreements in respect of derivative trades entered into after 1 January 2013. Under the terms of the new agreements Network Rail posts collateral on adverse net derivative positions with its counterparties. The new agreements do not contain a provision for thresholds; as such Network Rail or its counterparties are required to post collateral for the full fair value of net out of the money positions. At 31 March 2016 the fair value of collateral held was £330m (2015: £250m). The group is the beneficial owner of this collateral. The group is free to invest or otherwise utilise the collateral at its discretion, subject to acting within the authority sanctioned by the treasury committee. The balance of collateral posted by the group at 31 March 2016 was £819m (2015: £726m).

The group does not have any significant credit risk exposure to any single counterparty and has considered the creditworthiness of debtors. For further detail on the creditworthiness of customers and suppliers, see Notes 17 (Trade and other receivables) and 18 (Trade and other payables).

The group considers its maximum exposure to credit risk to be the sum of its financial assets as set out on page 127.

#### Foreign exchange risk

Network Rail is exposed to currency risks from its investing, financing and operating activities. Foreign exchange risk for all currencies is managed by the use of forward exchange contracts and currency swaps to limit the effects of movements in exchange rates on foreign currency denominated liabilities.

It is estimated that a general increase of ten percentage points in the value of any currency against sterling would have no material effect on the group's profit before tax or equity due to all currency positions being 100 percent hedged and therefore no sensitivity analysis is produced.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 25. Funding and financial risk management continued

**Interest rate and inflation risk**

The group is exposed to changes in interest rates as funds are borrowed at both fixed and floating interest rates. The hedging strategy approved by the treasury committee defines the appropriate mix between fixed and floating borrowings. Cross-currency and interest rate swap contracts are used to manage the fixed/floating ratio.

Debt with a carrying value of £38,222m (2015: £32,072m) is arranged at or swapped into fixed interest rates and exposes the group to fair value interest rate risk. Other borrowings were arranged at or swapped into floating rates, thus exposing the group to cash flow interest rate risk.

The group has forward starting interest rate swaps with a notional value of £9,241m which hedge the interest rate on forecast borrowings in CP5. The weighted average rate on these swaps is 2.62 percent.

The group has certain debt issuances which are index-linked and so are exposed to movements in inflation rates. The group does not enter into any derivative arrangements to hedge its exposure to inflation in relation to its index-linked debt, but rather to mitigate the effects of inflation on the group's retail price index-linked revenue streams.

**Sensitivity analysis**

This sensitivity analysis has been determined based on the exposure to interest rates and inflation for both derivative and non-derivative financial instruments at the balance sheet date. A one percent increase or decrease represents management's assessment of the reasonably possible changes in average interest rates and inflation.

	Group 31 March 2016		Group 31 March 2015	
	Impact on the income statement £m	Impact on equity £m	Impact on the income statement £m	Impact on equity £m
1% increase in the interest rate	(1,188)	(366)	(435)	(513)
1% increase in the GBP RPI on index linked bonds	(171)	–	(170)	–

A one percent decrease in the above rates would have an equal and opposite effect.

Interest rate sensitivities have been calculated by comparing the average rates of the derivative financial instruments to the market rate for similar instruments.

The impact of a change in GBP RPI has been calculated by applying a change of one percent to the RPI at the balance sheet date to the carrying value of the index linked bonds.

The group believes that the above analysis is unrepresentative of the risks inherent in issuing index-linked debt. Franchised track access and grant income constitute £5,742m (2015: £5,729m) of revenue which is far in excess of an index-linked interest expense of £239m (2015: £239m). Currently, these sources of income are contractually index-linked and, whilst there is no absolute contractual guarantee for future regulatory control periods that this will continue, the group is highly confident that this will continue to be the case. Therefore, the natural hedge that exists between finance costs and revenue mitigates the risk of RPI movements.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 25. Funding and financial risk management continued

## Liquidity risk management

The ultimate responsibility for liquidity risk management rests with the board of directors. The policy manual ratified by the treasury committee includes an appropriate liquidity risk management framework covering the group's short, medium and long-term funding and liquidity management requirements. The Treasury funding is subject to regular internal audits. Treasury provides sufficient liquidity to meet the group's needs, while reducing financial risks and prudently maximising interest receivable and minimising credit risk on surplus cash.

The group manages liquidity risk by maintaining sufficient cash and facilities to cover at least one year's working capital requirement by continuously monitoring forecast and actual cash flows. Included in Note 19 is a description of additional undrawn facilities that the group has at its disposal to further reduce liquidity risk.

The following table details the group's remaining contractual maturity for its financial liabilities. The table has been drawn up on the undiscounted cash flows of financial liabilities based on the earliest date on which the group can be required to pay and, therefore, differs from both the carrying value and the fair value. The table includes both interest and principal cash flows.

Group	Within 1 year £m	1-2 years £m	2-5 years £m	5+ years £m	Total £m
31 March 2016					
Non-derivative financial liabilities					
Bank loans and overdrafts	(10)	(20)	(11)	(545)	(586)
Bonds issued under the Debt Issuance Programme					
– Sterling denominated bonds	(709)	(954)	(1,589)	(4,873)	(8,125)
– Sterling denominated index-linked bonds	(241)	(248)	(790)	(39,485)	(40,764)
– Foreign currency denominated bonds	(2,253)	(912)	(1,970)	(482)	(5,617)
Loan from the Department for Transport	(368)	(1,999)	(11,719)	(1,277)	(15,363)
Trade and other payables	(2,735)	(1,630)	–	–	(4,365)
Derivative financial liabilities					
Net settled derivative contracts	(90)	(152)	(493)	(249)	(984)
Gross settled derivative contracts – receipts	2,252	909	1,970	482	5,613
Gross settled derivative contracts – payments	(1,921)	(797)	(1,769)	(337)	(4,824)
	(6,075)	(5,803)	(16,371)	(46,766)	(75,015)
31 March 2015					
Non-derivative financial liabilities					
Bank loans and overdrafts	(10)	(10)	(30)	(1,010)	(1,060)
Bonds issued under the Debt Issuance Programme					
– Sterling denominated bonds	(2,126)	(709)	(1,346)	(6,069)	(10,250)
– Sterling denominated index-linked bonds	(236)	(241)	(761)	(36,243)	(37,481)
– Foreign currency denominated bonds	(1,365)	(2,182)	(2,781)	(467)	(6,795)
Loan from the Department for Transport	(187)	(187)	(5,302)	(1,748)	(7,424)
Trade and other payables	(2,671)	(921)	–	–	(3,592)
Derivative financial liabilities					
Net settled derivative contracts	(60)	(107)	(456)	(394)	(1,017)
Gross settled derivative contracts – receipts	1,365	2,181	2,745	59	6,350
Gross settled derivative contracts – payments	(1,252)	(1,770)	(2,561)	(47)	(5,630)
	(6,542)	(3,946)	(10,492)	(45,919)	(66,899)

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 25. Funding and financial risk management continued

#### Offsetting financial assets and liabilities

##### a) Financial assets

The following financial assets are subject to offsetting, enforceable master netting arrangements and similar agreements.

Group	Gross amounts of recognised financial assets £m	Gross amounts of recognised financial liabilities set off in the balance sheet £m	Net amount of financial assets presented in the balance sheet £m	Related amounts not set off in the balance sheet		Net amount £m
				Financial instruments £m	Cash collateral received £m	
31 March 2016						
Derivative financial assets	963	–	963	(693)	(257)	13

Group	Gross amounts of recognised financial assets £m	Gross amounts of recognised financial liabilities set off in the balance sheet £m	Net amount of financial assets presented in the balance sheet £m	Related amounts not set off in the balance sheet		Net amount £m
				Financial instruments £m	Cash collateral received £m	
31 March 2015						
Derivative financial assets	771	–	771	(542)	(156)	73

##### a) Financial liabilities

The following financial liabilities are subject to offsetting, enforceable master netting arrangements and similar agreements.

Group	Gross amounts of recognised financial liabilities £m	Gross amounts of recognised financial assets set off in the balance sheet £m	Net amount of financial liabilities presented in the balance sheet £m	Related amounts not set off in the balance sheet		Net amount £m
				Financial instruments £m	Cash collateral paid £m	
31 March 2016						
Derivative financial liabilities	(1,408)	–	(1,408)	693	715	–

Group	Gross amounts of recognised financial liabilities £m	Gross amounts of recognised financial assets set off in the balance sheet £m	Net amount of financial liabilities presented in the balance sheet £m	Related amounts not set off in the balance sheet		Net amount £m
				Financial instruments £m	Cash collateral paid £m	
31 March 2015						
Derivative financial liabilities	(1,043)	–	(1,043)	542	501	–

#### Cash flow hedges

Contractual payments on derivatives designated as cash flow hedges impact the income statement and will all have matured by 2027.

#### Borrowings

Details of the group's undrawn committed facilities and types of debt instrument used can be found in Note 19.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 25. Funding and financial risk management continued

## Fair value measurements recognised in the balance sheets

The following table provides an analysis of instruments that are measured subsequent to initial recognition at fair value, grouped into Levels 1 to 3 based on the degree to which the fair value is observable:

- Level 1 fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2 fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

	2016			
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Property, plant and equipment – the railway network	–	–	58,532	58,532
Investment properties	–	–	1,109	1,109
Derivative financial assets	–	963	–	963
Financial assets held at amortised cost	–	2,622	–	2,622
Assets	–	3,585	59,641	63,226
Derivative financial liabilities	–	(1,408)	–	(1,408)
Financial liabilities designated at fair value through profit and loss	(776)	–	–	(776)
Financial liabilities designated at amortised cost	(30,690)	(11,402)	–	(42,092)
Liabilities	(31,466)	(12,810)	–	(44,276)
Total	(31,466)	(9,225)	59,641	18,950

	2015			
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Property, plant and equipment – the railway network	–	–	54,091	54,091
Investment properties	–	–	982	982
Derivative financial assets	–	771	–	771
Financial assets held at amortised cost	–	1,509	–	1,509
Assets	–	2,280	55,073	57,353
Derivative financial liabilities	–	(1,043)	–	(1,043)
Financial liabilities designated at fair value through profit and loss	(760)	–	–	(760)
Financial liabilities designated at amortised cost	(34,716)	(12,266)	–	(46,982)
Liabilities	(35,476)	(13,309)	–	(48,785)
Total	(35,476)	(11,029)	55,073	8,568

The fair value of level 2 derivatives is estimated by discounting the future contractual cash flows using appropriate yield curves based on quoted market rates as at the current financial year end.

## Property, plant and equipment

We have classified the valuation of the rail network as Level 3. As explained in note 12, the network's fair value is the estimated future cash flows that will be generated in perpetuity, discounted at the regulatory cost of capital, as set by the ORR in its Periodic Review. The cost of capital at which cash flows are discounted is the key unobservable input in the valuation. The full market cost of capital determined by the ORR is 4.31 percent for the current control period, arrived at through advice from consultants, comparisons to similar infrastructure assets and discussions with Network Rail.

An increase in the market cost of capital would lead to a decrease in the valuation of the rail network and vice versa. However, the impact would be limited to the current control period as the regulator would re-evaluate the allowed return and reset it to the market rate at the next quinquennial review.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

### 25. Funding and financial risk management continued

#### Investment properties

Property valuations are by their nature subjective, as they are made on the basis of assumptions made by the valuer. They too have been classified as Level 3 and the key inputs to the valuations, defined as 'unobservable' by IFRS 13, are analysed in the table below.

	Estimated rental value per sq. ft			Equivalent yield			
	Fair value at 31 March 2016	Minimum £	Maximum £	Weighted average £	Minimum %	Maximum %	Weighted average %
Valuation Technique:							
One-off valuation	163	2.3	300.0	9.2	3.4	9.4	5.2
Beacon method*	946	n/a	n/a	n/a	4.8	12.0	7.8

\* The Beacon methodology splits all the properties within the portfolio into 13 homogenous groups. The properties in each group are valued by applying a yield to the annual rent (passing or void) for the property. Yields applied are on the basis that the property is rack rented i.e. the current passing rent received from these properties are in line with market rent. As such, an estimated rental value per square feet for these properties is not available.

All other factors being equal, a higher yield would lead to a decrease in the valuation of a property and an increase in the current or estimated future rental stream would have the effect of increasing the capital value, and vice versa. However, there are interrelationships between the unobservable inputs which are influenced by market conditions, which would impact the changes in fair value.

A review of the categorisation of the assets and liabilities into the three levels is made at each reporting date. There were no transfers between Level 1 and Level 2 fair value measurements and no transfers into or out of Level 3 fair value measurements in the current or prior years.

### 26. Retirement benefit schemes

#### Defined contribution schemes

On 1 April 2004 the group introduced a defined contribution pension scheme, the Network Rail Defined Contribution Pension Scheme (NRDCPS). This is an auto-enrolment scheme for all new employees of Network Rail, except those who have the legal right to join the Railway Pension Scheme (RPS), in compliance with regulations made under the Pensions Act 2008. Any employee who wishes to transfer from the Network Rail Section of the RPS to the NRDCPS is entitled to do so.

At 31 March 2016, the NRDCPS had 10,802 members (2015: 9,097) and the average employer contribution rate in the year was 4.5 percent (2015: 4.3 percent).

#### Defined benefit schemes

The principal pension scheme in which the group participates is the Railway Pension Scheme (RPS), which was established by statutory instrument, commenced on 1 October 1994 and is a funded defined benefit arrangement. The assets and liabilities under the predecessor scheme, the British Rail Pension Scheme (BRPS), were transferred to the RPS on that date. The RPS is an industry-wide scheme for all eligible employees within the railway industry. There are different sections within it for different employers. The assets and liabilities of each section are identified separately from those of the other sections. The group has its own section, the Network Rail Shared Cost Section (the Network Rail Section). This scheme, the assets of which are held separately from the group, is contributory and provides pensions related to pay at retirement.

The assets transferred to the RPS from the BRPS on 1 October 1994 were apportioned among the various sections of the RPS in accordance with the methods and assumptions specified in The Railways Pensions (Transfer and Miscellaneous Provisions) Order 1994 (the 'Transfer Order') which effected the transfer. The amount credited to the Network Rail Section included a share of the surplus at that time.

Since 1 April 2004, new members can only join the Network Rail Section of the RPS after completing five years of service. Benefits for existing members and employees joining up to and including 31 March 2004 were not affected by the revised eligibility rules of the Network Rail Section. In addition, the group announced its decision to cap its contribution to British Railways Additional Superannuation Scheme (BRASS) matching at current levels for existing employees and to dispense with matching for new employees. The group will continue to match regular contributions but will not increase them in cash terms in the future.

On 1 November 2008 Network Rail launched a third pension scheme – the Career Average Revalued Earnings (CARE) scheme, which is available to all employees.

Qualified actuaries Towers Watson have valued the schemes on an IAS 19 (revised) basis at 31 March 2016 and 31 March 2015.

The contributions required to fund the RPS and the CARE scheme are reassessed every three years, following completion of actuarial valuations (by the Scheme Actuaries). Under the terms of the Pensions Act 2004, the Trustee and each employer must agree the methods and assumptions used to calculate the 'Technical Provisions', i.e. assets required to meet the Section's liabilities. The assumptions agreed are typically weaker than those used for IAS 19 purposes in current market conditions, so the minimum funding requirement in itself requires no further adjustment to the IAS 19 obligations below. However, the regulatory regime may, depending on legal advice received at the appropriate time, mean that a future employer's accounting surplus would need to be restricted.



## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 26. Retirement benefit schemes continued

The RPS and CARE schemes are both shared cost in nature, so the cost of benefits being earned and the cost of funding any shortfall in the schemes are normally split in the proportion 60:40 between the group and the members. In practice the contributions are adjusted at each triennial valuation to reflect the funding position of the schemes at that time.

In 2016 Network Rail agreed with the Trustee that, from 1 April 2016, the resulting contributions would be further adjusted with a slight increase in the member contribution rate and a corresponding reduction in the company's rate. The group reflects its share of the contribution in the financial statements. The IAS 19 deficit, service cost and interest cost therefore represent 60% of the total for each of the schemes. From 1 April 2016 the service cost will be further reduced by the contribution adjustment referred to above.

The group pays contributions of 14.04 percent of Section Pay for members with a right to retire unreduced from age 60 and 10.5 percent of RPS 2012 Section Pay for other members. These rates will continue until 31 March 2016 when the employer contribution rate will revert to 10.64 percent of Section Pay for non-protected members with a right to retire unreduced from age 60, and to 9.30 percent of RPS 2012 Section Pay for other non-protected members. The rate of 14.04 percent of Section Pay will continue for protected members until a new rate is agreed. Alternative rates are due for members electing for promotional contributions to be pensionable for future service. These rates are designed to be cost neutral to the employer relative to those set out above. The equivalent rates for the CARE scheme are 10.9 percent for group contributions, changing to 8.88 percent of Pensionable Salary from 1 April 2016.

The estimated amounts of contributions expected to be paid by the group and members to the schemes during the year ended 31 March 2017 are £109m and £69m respectively. If a surplus or deficit arises, the provisions in the rules mean that the group and members benefit from or pay for this respectively in the proportion 60:40.

	2016 %	2015 %
<b>Key assumptions used:</b>		
Discount rate	3.4	3.4
Expected rate of price inflation and CARE benefit increases (RPI measure)	2.9	2.9
Future earnings increases*		
- before changes to benefits from 1 April 2016	3.9	3.9
- after changes to benefits from 1 April 2016	**2.9	N/A
Pension increases (CPI measure)	1.9	1.9

\* Including promotional salary scale. Promotional salary scale increases apply only in respect of service after the date of promotion.

\*\* 2.9% p.a. for non-Protected members, 3.4% p.a. for Protected members

	2016		2015	
	Males	Females	Males	Females
Average life expectancy for mortality tables used to determine defined benefit obligations:				
- Member aged 65 now (pension under £10,300 pa or pensionable pay under £35,000 pa)	21.0	22.8	20.9	22.7
- Member aged 65 now (others)	23.4	24.6	23.3	24.5
- Member aged 65 in 20 years' time (pension under £10,300 pa or pensionable pay under £35,000 pa)	23.3	25.2	23.2	25.1
- Member aged 65 in 20 years' time (others)	25.7	27.0	25.5	26.8

For the Network Rail Section of the RPS the discounted mean term of the Defined Benefit obligation is 20 years, for the CARE scheme it is 33 years.

Amounts recognised in income in respect of the group's pension arrangements are as follows:

	2016 £m	2015 £m
Current service cost – defined contribution (see Note 6)	15	13
Current service cost – defined benefit (see Note 6)	195	164
Past service credit - defined benefit (see Note 6)	(124)	-
Interest cost	49	53
	135	230

The current service cost has been included in employee costs, the net interest scheme deficit has been included in finance costs. The past service credit has arisen in the year due to pension scheme changes that limited the way that above-inflation pay increases count towards defined benefit pension obligations.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 26. Retirement benefit schemes continued

Amounts recognised in the statements of comprehensive income in respect of the group's pension arrangement are as follows:

	2016 £m	2015 £m
(Gain)/loss on defined benefit obligation due to experience	(29)	7
Loss on defined benefit obligation due to assumption changes	-	452
Return on plan assets greater than discount rate	(70)	(300)
Actuarial (gain)/loss on defined benefit pension scheme	(99)	159

The cumulative amount of actuarial losses recognised in other comprehensive income was £910m (2015: £1,007m).

The amount included in the balance sheet arising from the group's obligations in respect of its defined benefit schemes is as follows:

	2016 £m	2015 £m
The defined benefit obligation is made up as follows:		
Active members	(4,415)	(4,423)
Deferred pensioner members	(799)	(769)
Retired members	(2,528)	(2,387)
Present value of defined benefit obligation	(7,742)	(7,579)
Fair value of scheme assets	5,375	5,071
Deficit in the scheme	(2,367)	(2,508)
Group's share (60%) of the scheme deficit recognised in the balance sheet	(1,420)	(1,505)

This amount is presented as a non-current liability in the balance sheet. Cumulative gains or losses are recognised in equity.

Movements in defined benefit plan assets and liabilities (including members' share):

	Asset £m	Liabilities £m	Deficit £m
At 1 April 2014	4,350	(6,411)	(2,061)
Current service cost including members' share	-	(276)	(276)
Interest on pension deficit	192	(279)	(87)
Administration expenses	(7)	-	(7)
Return on plan assets greater than the discount rate	499	-	499
Actuarial gain arising from changes in financial assumption	-	(817)	(817)
Actuarial gains and losses on defined benefit obligation due to demographic assumptions	-	64	64
Actuarial gain arising from experience adjustments	-	(11)	(11)
Regular contributions by employer	121	-	121
Contributions by employees	67	-	67
Benefits paid	(151)	151	-
At 31 March 2015	5,071	(7,579)	(2,508)
Current service cost including members' share	-	(331)	(331)
Interest on pension deficit	173	(255)	(82)
Administration expenses	(7)	-	(7)
Return on plan assets greater than the discount rate	117	-	117
Section amendment	-	205	205
Actuarial gain arising from experience adjustments	-	49	49
Regular contributions by employer	121	-	121
Contributions by employees	69	-	69
Benefits paid	(169)	169	-
At 31 March 2016	5,375	(7,742)	(2,367)

The actual return on scheme assets was £290m (2015: £691m).

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 26. Retirement benefit schemes continued

Expected future benefit payments from the Network Rail Section, based on data from the 2013 formal valuation and the 31 March 2016 IAS19 assumptions are as follows:

	£m
Benefits expected to be paid within 12 months	141
Benefits expected to be paid between 2 to 3 years	314
Benefits expected to be paid between 4 to 6 years	563
Benefits expected to be paid between 7 to 10 years	935
Benefits expected to be paid between 11 to 15 years	1,455
Benefits expected to be paid in over 15 years	11,753

The analysis of the scheme assets and the expected rate of return at the balance sheet date was as follows:

	Fair value of assets		Percentage of assets	
	2016 £m	2015 £m	2016 %	2015 %
Equity instruments	4,756	4,474	88.49	88.23
Debt instruments – Government	357	336	6.64	6.62
Debt instruments – non-Government	232	227	4.31	4.48
Property	3	2	0.06	0.04
Other	27	32	0.50	0.63
	5,375	5,071		

The group is exposed to a number of risks relating to the scheme including assumptions not being borne out in practice. The most significant risks are as follows:

**Asset volatility**

There is a risk that a fall in asset values is not matched by corresponding reduction in the value placed on the defined benefit obligation scheme (DBO). The scheme holds a proportion of growth assets, which are expected to outperform corporate or government bond yields in the long term, but gives exposure to volatility and risk in the short-term.

**Change in bond yields**

A decrease in corporate bond yields will increase the value placed on the scheme defined benefit obligation, although this will be partially offset by an increase in the value of the scheme's corporate bond holdings.

**Inflation risk**

The majority of the scheme's DBO is linked to inflation where higher inflation will lead to higher value being placed on the DBO. Some of the scheme assets are either unaffected by inflation or loosely correlated with inflation (e.g. growth assets), meaning that an increase in inflation will generally increase the deficit.

**Life expectancy**

An increase in life expectancy will lead to an increased value being placed on the scheme's DBO. Future mortality rates cannot be predicted with certainty.

**Actuarial assumption sensitivity**

The discount rate is set by reference to market conditions at the reporting date, and can vary significantly between periods.

The earnings increases are linked to inflation and so set by reference to market conditions at the reporting date.

The mortality assumptions used are set by considering the experience of the scheme's members, and by making an allowance for possible future improvements in longevity. Mortality assumptions are difficult to set accurately, and forecasting rates of future mortality improvement is inevitably speculative.

## NOTES TO THE FINANCIAL STATEMENTS CONTINUED

## 26. Retirement benefit schemes continued

The following table shows the effect of changes in these assumptions upon the defined benefit obligation:

	2016 £m	2015 £m
Discount rate		
Change in defined benefit obligation at year end from a 25 basis points increase	(359)	(353)
Change in defined benefit obligation at year end from a 25 basis points decrease	379	372
Mortality		
Change in defined benefit obligation from a one year increase in longevity	248	244
Change in defined benefit obligation from a one year decrease in longevity	(241)	(237)
Earnings increase		
Change in defined benefit obligation at year end from a 25 basis points increase	147	147
Change in defined benefit obligation at year end from a 25 basis points decrease	(143)	(142)
Price inflation (CPI measure)*		
Change in defined benefit obligation at year end from a 25 basis points increase	382	375
Change in defined benefit obligation at year end from a 25 basis points decrease	(364)	(357)

\* Including consistent increases to Retail Price Index, salary growth and Retail Price Index/ Consumer Price Index related pensions assumptions.

## 27. Related parties

As the group's sponsor, the Department for Transport (DfT) is considered a related party. Network Rail received income of £3,842m (2015: £3,780m) from the DfT in the year ended 31 March 2016 comprised of £3,835m in grant income, £6m as a stage payment relating to the Thameslink project and £1m relating to property income. The group also paid the DfT £326m in respect of the Financial Indemnity Mechanism fee (see note 25 for more details). At 31 March 2016 the company held £13,940m of loans issued by DfT.

The British Transport Police (BTP), with whom Network Rail has a Police Service Agreement is also a related party. Network Rail was invoiced £84m (2015: £88m) by the BTP in the year ending 31 March 2016 and received £1m in property income from the BTP in the same period.









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