NetworkRail

Network Rail Limited
Annual report and accounts 2018

Working for you

Network Rail Limited

Annual Report and Accounts 2018

Presented to Parliament by

The Secretary of State for Transport by Command of Her Majesty

July 2018

Cm 9630

This publication is available at **www.gov.uk/government/publications**

Any enquiries regarding this publication should be sent to us at **cosec@networkrail.co.uk**

ISBN 978-1-5286-0311-9

CCS0418409980 07/18

Printed on paper containing 75% recycled fibre content minimum

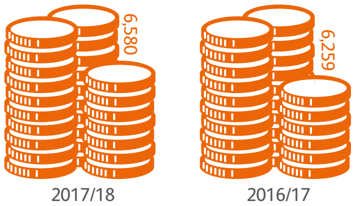
Printed in the UK by the APS Group on behalf of the Controller of Her Majesty's Stationery Office

Our year in numbers

In this report we outline performance during 2017/2018, the fourth year of Control Period 5. Here is a snapshot of how we performed against a selection of key indicators.

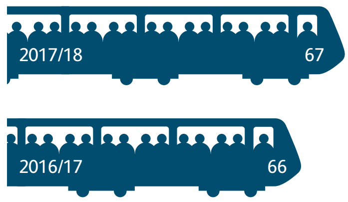
£6,580m

Revenue in the year
(2016/2017: £6,259m)



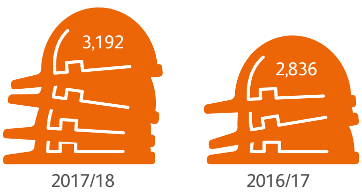
67km

Passenger km travelled (bn)
(2016/17: 66km)



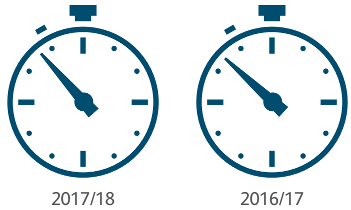
£3,192m

Operating costs*
(2016/2017: £2,836m)



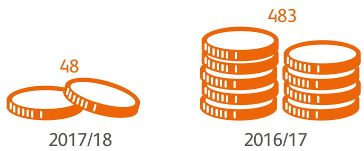
87.8%

Passenger trains on time
(2016/2017: 87.6 %)



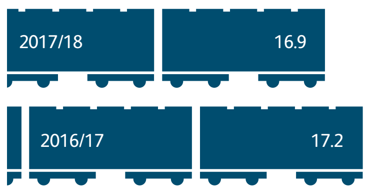
£48m

Profit before tax†
(2016/2017: £483m)



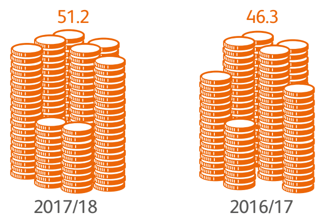
16.9bn

Freight moved
(2016/17 17.2bn net tonne km)



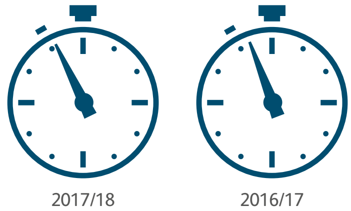
£51.2bn

Net debt
(2016/2017: £46.3bn)



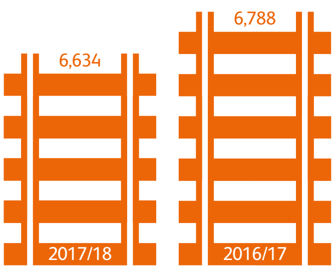
93.5%

Freight trains on time
(2016/2017: 94.3 %)



£6,634m

Capital expenditure
(2016/2017: £6,788m)



259,009

Number of workforce safety close calls made against our target of 205,000
(2016/2017: 205,555)

A higher number represents a better performance.

* Before depreciation and amortisation.

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

Our awards, our people

Network Rail is full of dedicated individuals who are committed to building a better railway for a better Britain. In the past twelve months we have been nominated for a number of awards that recognise the impact of our people on the rail network, the environment and creating an equal and diverse workforce. Here are some of the awards that we are most proud of receiving in 2017/18:

Best Employers for Race

National Transport Awards – Apprenticeship Champion of the Year

Armed Forces Covenant Gold Employer Recognition Scheme Award

Top 50 Companies for Customer Service – Best in the Public Sector

Digital Technology Excellence – Rail Business Awards

Institute of Collaborative Working – Chairman's Special Recognition Award

PwC Building Public Trust in Corporate Reporting – Award for Excellence in Reporting

Green Apple Environment Award - Conservation and Wildlife (Gold)

British Construction Industry Awards – Partnership Initiative of the Year and Temporary Works

Sustainable Development Award, Outstanding Teamwork Award, Infrastructure Achievement of the Year

Rail Freight Group (RFG) Customer Care Award

Top LGBT+ Network in Britain

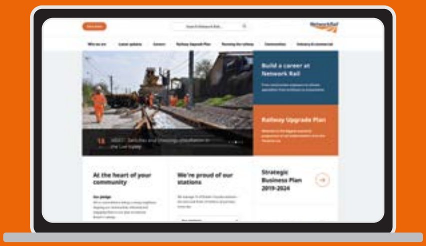
CEEQUAL Sustainability Award: Excellent 96.6 per cent

Railway Industry Innovation Awards – Major Project

London Civil Engineering Awards – Infrastructure Award and Greatest Contribution to London Award

Institution of Civil Engineers People's Choice nomination

Contents



For further information visit **networkrail.co.uk**

Introduction by our chair, Sir Peter Hendy CBE

Railways are the economic arteries of our country and create economic growth, jobs and housing.

We are really seeing a transformation take place at Network Rail. We are now a much more customer-focused organisation, with devolved structures that allow local managing directors and their leadership teams to put their customers and passengers at the heart of everything they do. We have become more cost competitive, making over £85m of savings through our continuous improvement initiatives in the past year alone. And we are also becoming a more diverse organisation. Since 2014 we have increased the number of women working at Network Rail by 32 % and we have been recognised as an inclusive employer.

Since Mark Carne CBE took over as chief executive in 2014, he has completely transformed the safety culture at Network Rail. Under his leadership not only have we seen workforce accidents reduce by 40 %, but there has been a 38 % reduction in train accident risk and a 16 % increase in infrastructure reliability.

Despite challenges, Mark has led Network Rail as it has delivered the biggest upgrade programme since the Victorian era. He has addressed big issues like aligning performance, creating scorecards that align with targets that are set by our customers - the train operators - and which are increasingly consistent with their own, and formed the System Operator function that is able to take a 'whole system' view of the railway.

Mark has also led the development of the best business plan for a future control period that Network Rail has ever had, and which enabled us to secure a Statement of Funds Available (SoFA) of £53bn, the largest in the railway's history.

This transformation into a customer-focused, efficient organisation is the reason I am confident that the next five years will tell a very different story to CP5. We will start the next control period (CP6) in 2019 as a transformed organisation ready to take on this ambitious strategy. Thanks to devolution it has been planned from the bottom up, looking at asset performance and condition, and performance and costs. For the first time each route will have its own regulatory settlement, as will the System Operator. They will thus have greater ownership and greater responsibility.

Our plan for CP6 will also start the railway's digital age with digital train control and signalling that will enable even more services to run, more safely and at a lower cost. To realise these benefits there must be a whole system change across the industry to support it, and Network Rail is ready to play its part in this transformation.

The rail network is a complex set of national systems that need to work seamlessly in order to deliver for our customers. Unfortunately the May 2018 timetable change has not yet delivered all the benefits that we had hoped for, and many passengers have had poor experiences on the GTR and Northern networks since these changes came in. We know that this level of disruption is not good enough, and we are truly sorry for the disruption that this has caused to people's lives. In the long run, we will see more services with better, newer, longer trains on these networks. In the meantime the whole industry is working tirelessly to stabilise services, and provide more predictability for passengers.

I end by sincerely thanking Mark, from me and on behalf of the Board, for his huge contribution to the organisation over the last four years. He has worked hard to transform Network Rail into an organisation capable of delivering the railway that Britain needs. His legacy will be felt for many years to come and I look forward to continuing this great work with his successor, Andrew Haines OBE, who will join us later this year. I also thank the Board, the rest of the senior leadership team, and all our staff and contractors that work so hard to keep Britain's railways, ever fuller of passengers, freight and trains, moving every day.

Sir Peter Hendy CBE, chair
27 June 2018

A message from our chief executive, Mark Carne CBE

Our role is to provide Britain with a safe, reliable, efficient and growing railway. While I can say that on all counts we can point to significant successes in the last year, more recent events have also highlighted that there is much more to do.

We have continued our relentless commitment to safety, and getting everyone home safe, every day, whether employees, passengers or the public. Train accident risk, level crossing risk and workforce risk are all at record low levels and we operate the safest major rail network in Europe. We never take such achievements for granted, quite the opposite. We strive everyday to find better ways of delivering improvements. For example, this year saw the launch of our Small Talk Saves Lives campaign in collaboration with Samaritans. This campaign is the first of its type on the railway and encourages the general public to support those who may be in emotional crisis around them on the rail network. It impacts hundreds of communities and countless Network Rail staff across the UK and I have been overwhelmed by the positive response that this campaign has received so far.

Sadly, however, in June 2018 a young man died while working at a station site in Scotland. Our deepest sympathies are with his family, friends and colleagues at this time. A full investigation into how this tragedy happened has been initiated; we are determined to harness the insights from this to help make our safety culture stronger, for employees, passengers and the public.

Following the publication of 'Delivering for our Customers' in July 2016, Network Rail continues to transform in order to better deliver for our customers. We were pleased to publish the 'Open for Business' pipeline in March this year. This invites third parties to fund and deliver projects on the railway. We are opening our doors, welcoming challenge and innovation.

Another major transformation milestone this year has been the formation of an additional five route supervisory boards. These boards provide independent oversight of the way track and train work together in the interests of passengers. They have now been formed for six of our eight geographical routes, with the remaining boards to be in place during 2018.

Over the last few years we have been busy delivering the biggest railway upgrade since Victorian times. Many of these projects are now coming to fruition and passengers, around the country, are finally experiencing the benefits. This year we finished the Ordsall Chord as part of the Great North Rail project, reducing congestion at Manchester Piccadilly and allowing more trains to run across the north of England. We completed the electrification of the Edinburgh-Glasgow Improvement Programme that will bring faster, longer and more reliable trains to Scottish towns and cities. We transformed and reopened London Bridge station, creating a bigger and better station for passengers as part of the Thameslink Programme. And we have continued to make great progress on the huge Great Western and Great North electrification programmes, which will usher in faster journeys, more capacity and wonderful new trains at the end of this year. New services require new timetables, new trains, more drivers and a high level of integrated thinking across the railway. In the May 2018 timetable change, the industry did not account for itself well and many passengers were left deeply frustrated, particularly in Northern and GTR, at the poor standards of performance. Collectively, the industry knows that it must do much better than this and we are working together to ensure the future changes to the timetable run more smoothly.

We are now very different to the Network Rail of just five years ago. It is this transformation that gives us the confidence to set out the ambitious goals we have laid out in our plans for the next five year control period (CP6), which begins in April 2019.

In February this year we submitted our Strategic Business Plan for a better railway for a better Britain to the Office of Rail and Road (ORR) for years 2019-2024. These plans reflect that safety is of paramount importance to Network Rail. We have also committed to increasing the reliability of our infrastructure, building on the 16 % improvement achieved

Chief executive's review continued

in the last four years, revolutionising the way we measure and deliver train punctuality. We will spend and deliver efficiently and there will be a major focus on Digital Railway and securing third party funding so that the taxpayer is no longer solely relied on to maintain and upgrade our infrastructure. We will also continue to lead the way in making the rail industry more diverse and inclusive, attracting people who think differently to make Network Rail an even better place to work. Great people and great teams are what we want to be recognised for.

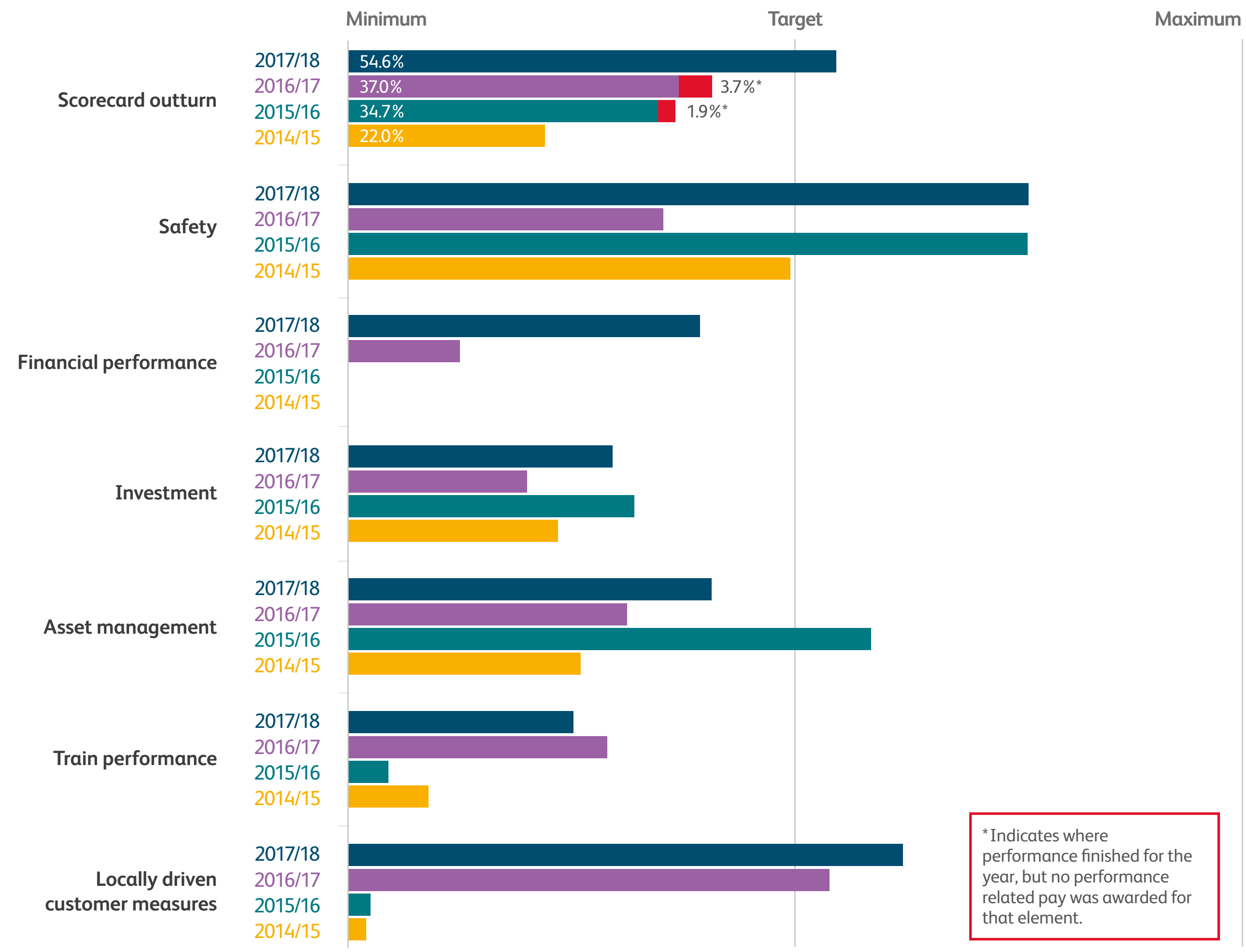
Our CP6 plans have built on the foundations of reform that we have put in place over the last few years. Network Rail is now a federation of devolved businesses. Each route has developed their own plan and consulted with their own customers and stakeholders to shape it. They have been built 'from the ground up' by local engineers who understand their assets and they will be managed and delivered by local teams. This is a fundamental change, with those closest to passengers accountable for performance.

CP6 will mark the tipping point in the evolution of our rail network, as Digital Railway starts to become a reality. This technology is already being utilised in parts of the network. In March the first mainline passenger train operating on digital railway technology took its inaugural journey through the Thameslink Core between St Pancras and Blackfriars.

Earlier this year I announced my departure from Network Rail and Andrew Haines OBE will take over from me as chief executive in the autumn to take us into the next control period and I wish Andrew every success. I feel proud of what we have achieved and the transformation that Network Rail has undergone. None of it would have been possible without the hard work and dedication I see everyday from the railway family. I would like to extend my thanks to all of you.

Mark Carne CBE, chief executive
27 June 2018

National scorecards during CP5 2014 - 2018



About us

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

What we do

Network Rail owns and operates most of Britain's railway infrastructure, including 20,000 miles of track, 30,000 bridges and viaducts and thousands of signals, tunnels, level crossings and points. We also manage rail timetabling and operate 20 of the largest stations. Our role is to provide a safe, reliable and efficient railway while growing and upgrading the network to better serve passengers and freight.

How we are governed and managed

Network Rail is a public sector company, answerable to the Department for Transport (DfT) and Transport Scotland. Our direct customers are the companies that pay to use our infrastructure to provide passenger and freight services.

While the majority of our funding comes from Government, we are increasing our partnerships with third parties and generating funds from our commercial estate to reinvest in the railway.

The Office of Rail and Road (ORR) is the independent safety and economic regulator of the railway. The ORR makes sure we meet the needs of our customers, passengers and freight users, as well as being a good neighbour to the millions of people who live or work near the railway.

A diagram showing the governance framework we operate within can be found on page 54.

> Network Rail's Board of Directors provides the primary internal governance. For details of the directors, including their biographies, see pages 49 to 52.

The executive committee, comprising the chief executive, the chief financial officer and other senior people, manages the day-to-day running of Network Rail. It meets on a regular basis to consider both strategic and operational matters and it is responsible for executing the objectives and strategy approved by the Board, providing leadership on safety, health and environmental matters, and establishing, monitoring and coordinating internal controls and risk management throughout the business.

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

- **Financial** – The ORR determines that we efficiently spend the income we receive and the outputs we must deliver during each five-year control period. Our chief executive is our accounting officer and 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 starts on page 53.

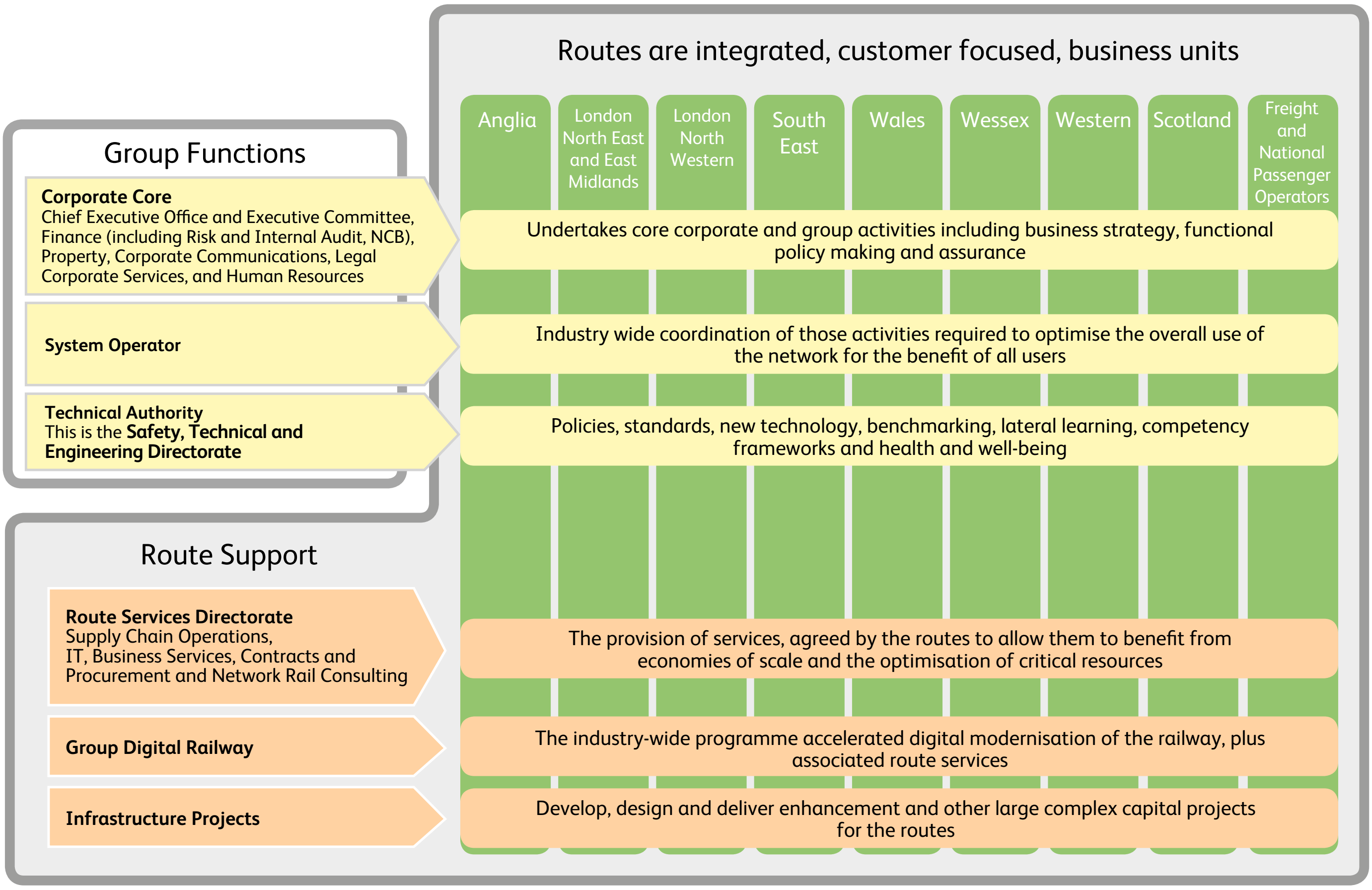
How we are organised and operate

We operate in a matrix structure, which means we work collaboratively across functions. This structure is made up of nine route businesses, central functions and route support services. Eight of the route businesses manage and run the rail network in a defined geographical area and work closely with local train operating companies to deliver the best service possible for passengers. The ninth route operates nationally, working with freight and long distance operators.

As part of our matrix structure, our critical central functions support our nine route businesses; these are the System Operator, Technical Authority, Route Services, Infrastructure Projects and Digital Railway. In addition to these, there is a small corporate core that covers activities such as business strategy, functional policy, legal and corporate assurance, and communications. We also have Network Rail Property, which is a commercial division of Network Rail that manages our estate and property assets.

The matrix structure has been designed to make sure that our routes are supported by a national framework. This allows us to deliver in a fair and competitive way for our customers across the UK.

About us continued



More information on the activities of the individual routes during 2017/18 can be found on pages 14 – 32. Information on our Digital Railway programme can be found on page 33, and our Property division on page 34.

Our business model

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

The UK and Scottish Governments specify what they want from Britain's railway and how much they wish to contribute. Our independent regulator, the ORR, sets a framework that specifies the level of fixed income we are allowed to charge train and freight operators, 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 which 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 the Government in five-year blocks called control periods. This annual report covers the fourth year of Control Period 5 (2014 to 2019).

The ORR assesses the efficient level of expenditure that it believes we need to run our business and deliver the regulated outputs. It determines how much revenue we need, taking into account other income that we receive. 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 the costs that an efficiently run business would incur to operate and maintain our network. They vary and can include costs relating to employees, office rental, information technology systems, and taxes. The regulator determines what it considers to be 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 to the rail network 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, or an increase if we exceed targets.

It is proposed that there will be changes to the method of revenue determination for CP6. This will be explained in our 2019 annual report and further details on the proposals can be found in the ORR's draft determination published 12 June 2018.

Our transformation

Since we published 'Delivering for our Customers', our plan for transforming Network Rail, in 2016 there has been a

About us continued

fundamental change to the way we operate. Network Rail is now a federation of devolved businesses operating within a national framework. This year, each route developed its own Strategic Business Plan for the next control period (2019-2024) for the first time. The routes and the System Operator will have their plans and targets agreed with the ORR, which reinforces how important it is that we have devolved businesses making decisions at a local level. Routes will drive economic growth, jobs and housing through better relationships with the communities they serve.

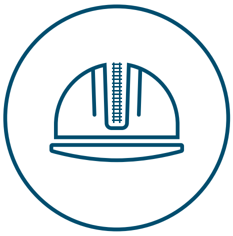
Over the past 12 months we have continued to drive the pace of change within Network Rail. We want to make it easier for third parties to fund, finance or deliver work on the railways, so we are implementing a number of reforms that aim to cut red tape, so people can come forward with innovative solutions and new ways of working on the railway. This year we published a list of potential opportunities for third party involvement as part of our Open for Business work, and this is just the start of much more to come.

Becoming more cost efficient has also been a key part of our transformation and we are empowering our employees to become more cost-effective and taking a critical eye to current processes. We have already trained 5,500 of our people in continuous improvement techniques and in the last year we made approximately £85m of savings through our continuous improvement initiatives.

Real change takes time, but the progress we have made shows real improvements; working smarter, planning better and making more efficient use of the railway.

Our strategy

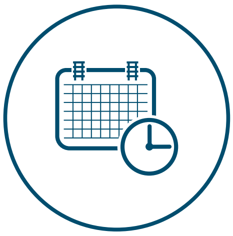
This year, Network Rail developed and submitted its Strategic Business Plan for the next five year control period (CP6) running from 2019 - 2024. As a passenger and customer-focused business, our plan for the next control period focuses on the following key responsibilities:



Safe

Keeping people safe on the railway is at the heart of everything Network Rail does. We want everyone home safe, every day. As well as it being a moral responsibility, we believe that improved safety and improved business performance go hand in hand. Safety will therefore continue to be our number one priority throughout the next control period, with a specific focus on four areas:

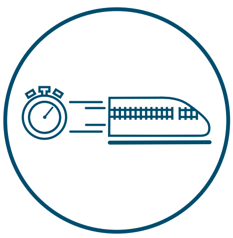
- **Passenger Safety** – We will reduce train accident risk by a further 10 %.
- **Public Safety** – We will continue to develop programmes to reduce railway trespass and prevent suicides.
- **Level Crossing Safety** – We will reduce the risk to the public at level crossings by 13 %.
- **Workforce Safety** – We want an injury-free and healthy business, so we will continue to improve our Lost Time Injury Frequency Rate (LTIFR) measure by 54 %. We will also increase our work on mental health and resilience, with a target of a 30 % reduction in absence due to mental ill-health by 2024.



Reliable

During the last 12 months we have begun to reverse the previous six year trend of declining train punctuality, but we are still not yet at a level that is acceptable. Our plan for the next five years, working with train operators, will achieve a 15 % reduction in the number of trains that are delayed, focusing on:

- **Better assets** – Improving the reliability of the railway's infrastructure to reduce incidents that cause disruption.
- **Better timetables** – Improving the accuracy of assumptions on which the timetable is based.
- **Better operations** – Improving operational processes so that service recovery from incidents is rapid.
- **Better information** – Improving the accuracy of train running data to help problem solve.



Efficient

Driving greater efficiency within our organisation is also a core part of our strategy. During the last 10 years we have reduced the operating and maintenance cost of passenger journeys by 40 %. Our plan for 2019 – 2024 proposes spending approximately £53bn (in 2017/18 prices) to operate, maintain, renew and enhance the railway, which we will spend wisely and efficiently. Between 2019 and 2024, we are forecasting that the cost per passenger kilometre of running the railway will reduce by a further nine per cent in real terms, through smarter working, more efficient use of the railway and better technology.

About us continued

Growing

Moving into the next control period, we will continue to improve our railway through the delivery of enhancements. We have radically changed our approach to planning enhancements in recent years, to prevent projects from being overpromised before they are properly developed and costed.

From 2019, enhancements will be considered on a case by case basis rather than in one five year budget. This pipeline approach will be supported by business cases to confirm the strategic fit, value for money, affordability and deliverability of proposals.

Building new projects to increase capacity can be expensive and disruptive, particularly in built-up urban settings. So the next control period will mark a turning point for Britain's railway, with the end of major analogue re-signalling – digital signalling is the future that this plan ushers in. Over the next five years, we will be accelerating the transition to digitally-run railways so we can unlock the benefits before the network is gridlocked. Digital Railway is developing a plan that, within 10 years, could enhance the journeys of over 70 % of all passengers.

Great People Great Teams

The delivery of this reforming, ambitious plan will only be possible if we can attract, develop and retain the brightest and the best. We want Network Rail to be a great place to work, and help to make people proud to work on Britain's railways.

We aim to be one of Britain's best employers. We aspire to create an environment that will allow everybody to reach their full potential. To reach our potential we must call on the talents of everyone; diverse teams perform better. We are leading the way in moving the rail industry to become more diverse and inclusive. We have set ourselves the target of increasing the female workforce to 20 % by 2020 and by 2024 we aim to double the proportion of women in our business. We also aim to be in the top 25 graduate employers and to have gender-balanced recruitment of apprentices and graduates.

Strategy/Direction (see pages 6 & 7)		Risks & Controls (see pages 40 - 45)		Outcomes (see pages 8 & 9)
Business Strategy	**People Strategy**	**People Risks**	**Business Risks**	**KPI's**
Safe	**Network Rail:** • Strives to be a place where people are proud to work. • Aims to be one of Britain's best employers. • Is committed to attracting, developing and retaining dedicated and committed people. • Is leading the way in making the railway industry more diverse and inclusive. • Is keen to be a place where people feel safe, looked after and are treated with dignity and respect. • Is planning for and developing leadership and skills to meet the future needs of the railway. • Works to create an environment to enable everyone to reach their full potential. • Encourages great leadership and strives to be a place where there is mutual trust and respect between line managers and employees. • Prioritises mental health and employee wellbeing, and supports and develops resilience in its people.	**Great People Great Teams** Network Rail not embedding and sustaining the right change initiatives at the right time, in the right way, to deliver the right benefits. Failing to attract, retain and develop the full potential of our pipeline of talent for key roles. Failure to secure employee and Trade Union support for our forward change agenda.	Failure to safeguard our workforce (employees and contractors). Failure to prevent a major avoidable train accident which results in multiple injury/fatality. 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.	**Safety:** Workforce safety – LTIFR Workforce safety – close calls raised Workforce safety – close calls closed within 90 days Top 10 milestones to reduce level crossing risk
Reliable			Failure to recover from a business interruption to pre-defined output levels and within agreed recovery timescales. Unable to achieve TOC / FOC performance targets as agreed with stakeholders.	**Asset management:** Composite Reliability Index Renewals (seven key volumes) **Train performance**
Efficient			Failure to: live within our funding envelope; achieve net receipts from asset sales to support shortfall funding; and deliver efficiency savings programme. Failure to deliver the renewals portfolio to time and cost.	**Financial performance:** FPM – total efficiency generated gross excluding enhancements FPM – gross enhancements only Cash compliance - income & expenditure
Growing			Failure to deliver the enhancement portfolio to time and cost.	**Enhancements:** Top 10 IP Renewals and Enhancement milestones All Delivery Plan Enhancement milestones **Locally driven customer measures**

Strategic report

How we performed in 2017/18

Area	Weightings	Year End Actuals		
Safety		**Scorecard Minimum**	**Target**	**Scorecard Maximum**
Workforce safety – Lost Time Injury Frequency Rate (LTIFR)	2.5 %	0.425	0.402	0.380 0.364
Workforce safety – Close calls raised	1.0 %	154,000	205,000	256,000 259,009
Workforce safety – Close calls closed within 90 days (%)	1.5 %	80 % 82.2 %	85 %	90 %
Passenger Train Accident Risk Reduction Measures	2.5 %	60 %	80 % 87.9 %	100 %
Top 10 Milestones to reduce Level Crossing Risk	2.5 %	6	8	10 10
Financial Performance		**Scorecard Minimum**	**Target**	**Scorecard Maximum**
Financial performance measure (FPM) – Total efficiency generated (£m) Gross Excluding Enhancements	5.0 %	-£225 (125)	0	+£225m
Financial performance measure (FPM) – Gross Enhancements Only (£m)	2.5 %	-£335	4	+£335m
Cash Compliance – Income and Expenditure	2.5 %	£60m	0 38	+£300m
Investment		**Scorecard Minimum**	**Target**	**Scorecard Maximum**
Top 10 IP Renewals and Enhancement Milestones	2.5 %	6 7	8	10
All Delivery Plan Enhancement Milestones (%)	2.5 %	60 %	80 % 29/36	100 %
Asset Management		**Scorecard Minimum**	**Target**	**Scorecard Maximum**
Composite Reliability Index (CRI)	2.5 %	15.6 %	16.5 %	17.5 % 18.1 %
Renewals (Seven Key Volumes)	2.5 %	90 %	95 %	100 % 100 %
Train Performance		**Scorecard Minimum**	**Target**	**Scorecard Maximum**
Train Performance	10.00 %	0 % 24.4 %	50 %	100 %
Locally Driven Customer Measures		**Scorecard Minimum**	**Target**	**Scorecard Maximum**
Locally Driven Customer Measures	10.00 %	0 %	50 % 60.4 %	100 %
Route Performance		**Scorecard Minimum**	**Target**	**Scorecard Maximum**
Anglia	6.48 %	0 %	47.2 % 50 %	100 %
LNE & EM	7.23 %	0 %	50 % 56.9 %	100 %
LNW	7.86 %	0 %	37.1 % 50 %	100 %
Scotland	4.74 %	0 %	50 % 52.1 %	100 %
South East	10.35 %	0 %	50 % 70.7 %	100 %
Wales	2.12 %	0 %	50 % 64.8 %	100 %
Wessex	3.74 %	0 %	50 % 53.4 %	100 %
Western	3.74 %	0 %	48.3 % 50 %	100 %
FNPO	3.74 %	0 %	50 % 61.5 %	100 %

Significantly Adverse to Target · Adverse to Target · Meeting or Exceeding Target · Significantly Exceeding Target

Our performance continued

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 significantly exceeded our LTIFR reduction target of 0.402, ending the year at 0.364. There were 580 lost time injuries over 2017/18, compared to 693 in 2016/17.

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.

259,009 close calls were reported. This exceeded both the target of 205,000 and the scorecard maximum of 256,250. 82.2 % of these calls were closed within 90 days, narrowly missing the target of 85 %.

Train Accident Risk Reduction Measures: Measures our achievement of the key milestones and metrics to reduce train accident risk. This is reported at route level as well as national, providing greater visibility and accountability in delivering a safer railway.

In 2017/18 the target was to achieve 80 % of planned volumes and milestones to reduce train accident risk. The year-end actual was 87.9 % thus exceeding target. Performance against the volume components of this measure were strong; three milestone measures not completing resulted in the shortfall against the maximum of 100 %.

Level Crossing Risk Reduction: A measure of benefits achieved through closures of level crossings, downgrade in status and crossing enhancements.

We closed all 10 of our top 10 milestones to reduce level crossing risk in 2017/18. The scorecard target of 8/10 was exceeded.

Financial Performance

Total Efficiency Generated (excluding Enhancements): This measures our financial stewardship of the day-to-day running of the rail 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 gross financial performance in 2017/18 was £125m adverse to target. Primarily due to Schedule 8* underperformance, including the impact of weather this year (notably the disruptive snow that Storm Emma brought at the end of February) infrastructure failures across a number of routes, as well as a number of externalities impacting LNW (multiple fatalities, a security event at Euston and a lineside fire).

However there has been some positive Schedule 8 performance in South East where investment in performance improvement schemes has reaped benefits and LNE & EM have also managed to marginally outperform targets.

Enhancements Only: 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 gross financial performance in 2017/18 was £4m favourable to target. Mainly arising from agreed changes in programme baselines (Rolling programme of electrification) and scope value engineering (Thameslink) partly offset by cost escalations on EGIP and Northern Programmes.

Cash Compliance: This is a measure of how well we have remained within our funding envelope in total. This is an aggregation of all variances against our financial budgets within Capex, Opex and income.

Cash compliance was £38m, slightly ahead of target as a result of positive management actions.

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 seven of our top ten milestones, narrowly missing our target of eight for this measure.

All Delivery Plan Enhancement Milestones: Our investment projects are managed using the Governance for Railway Investment Projects (GRIP) approach, which has milestones at stages three and six of the eight-stage project process.

We achieved 29 out of 36 of our enhancement milestones, successfully meeting our target of 80 %.

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.

We achieved an improvement in CRI of 18.1 %, exceeding both our target of 16.5 % and our scorecard maximum of 17.5 %.

Renewals (Seven Key Volumes): Our seven key volumes for renewals are plain line track; switches and crossings; signalling equivalent units; underbridges; total earthworks; wire runs; and conductor rail.

We ended the year at 100 %, significantly exceeding our overall target of 95 %. All key volumes performed strongly and exceeded targeted levels.

Train Performance

This is an aggregation of all train performance related measures on the route scorecards, and consolidated into one measure to summarise train performance.

We achieved 24.4 %, demonstrating overall we are adverse to our train performance targets.

Locally Driven Customer Measures

This is an aggregation of all locally driven customer measures on the route scorecards, and consolidated into one measure to summarise the nature of these measures.

We achieved 60.4 %, demonstrating overall we are exceeding to our locally driven customer measure performance targets.

Route Performance

Anglia: Scorecard performance was marginally adverse to 50 % target, at 47.2 %. Strongest performing areas were safety and investment. Weakest performing areas were financial and train performance.

LNE: Scorecard performance was favourable to 50 % target, at 56.9 %. Strongest performing areas were safety and asset management. Weakest performing area was train performance.

LNW: Scorecard performance was adverse to 50 % target, at 37.1 %. Strongest performing area was safety. Weakest performing areas were financial performance and train performance.

Scotland: Scorecard performance was marginally favourable to 50 % target, at 52.1 %. Strongest performing areas were safety and locally driven customer measures. Weakest performing area was train performance.

South East: Scorecard performance was significantly favourable to 50 % target, at 70.7 %. All areas of the scorecard performed strongly.

Wales: Scorecard performance was favourable to 50 % target, at 64.8 %. Many sections of the Scorecard performed strongly, including safety, financial performance and asset management. Weakest performing area was train performance.

Wessex: Scorecard performance was favourable to 50 % target, at 53.4 %. Strongest performing areas were safety and asset management. Weakest performing areas were financial and train performance.

Western: Scorecard performance was marginally adverse to 50 % target, at 48.3 %. Strongest performing areas were safety and locally driven customer measures. Weakest performing areas were financial and train performance.

FNPO: Scorecard performance was favourable to 50 % target, at 61.5 %. Strongest performing areas were safety and investment. Weakest performing area was train performance.

*Schedule 8 (the performance regime) is the part of passenger, freight and charter operators' track access contract with Network Rail that sets out arrangements for compensation paid to operators by Network Rail in the event of unplanned disruption to services.

Chief financial officer's review of 2017/18

Network Rail is about to enter the final year of its five-year funding period and plans for the subsequent five years are well advanced. To continue to deliver the infrastructure required for a vibrant and growing rail network, we will need to maintain the pace of delivery that we achieved in 2017/18 through 2018/19.

Together, the rail industry is investing to innovate and improve journeys right across the UK. Network Rail is spending £128m every single week on improvements for passengers through our Railway Upgrade Plan. As a result, by 2019 there will be an extra 170,000 seats into major cities across the country every day, with 6,400 extra train services and 5,500 new train carriages; a 30 % increase in capacity. Journeys will be quicker, trains will run more frequently and there will be greater comfort on board. This growth provides challenge, not least in providing the growing infrastructure that Britain needs, in a manner that provides value to both the rail user and the taxpayer.

Our key projects for the year have included Crossrail, Thameslink, the Great North Rail Project, the Edinburgh Glasgow Improvement Programme, Great Western Electrification Programme, and the Waterloo and South West upgrade; we are now coming towards the end of these mega-projects with more frequent trains coming into service.

Our efficiencies have faced further challenge this year. The Office of Rail and Road (ORR) and Network Rail agreed ambitious targets at the start of the control period, which have been built into the determination of charges. Efficiencies have been made, but are often offset against cost pressures; including changes to improve workforce safety, challenges in our supply chain such as the collapse of Carillion and fewer opportunities to carry out works as the network becomes busier.

Network Rail needs to reduce costs and raise funds for the final year of our control period. One of the key recommendations of the Hendy Review in 2015 was to dispose of our non-core assets. The reason for this being to help bridge the funding gap for the Railway Upgrade Plan; assisted by additional government funding and generating additional efficiencies. Network Rail has continued to progress this disposal of certain property assets over the year. The anticipated sale of our commercial estate is critical to achieving our plans in 2018/19 and we anticipate that this will take place in the second half of the year.

Devolution continues across the business. This has continued to drive a route-led and customer-driven mind-set, allowing us to work more closely with our key stakeholders and further drive improved performance. It has allowed us to be more commercial, and has opened us up to becoming more cost-efficient and competitive.

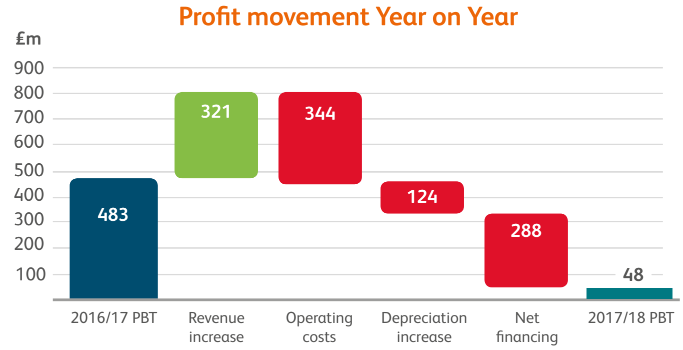
Finally, in February 2018 we finalised our CP6 Strategic Business Plan; which we believe supports a clear and realistic course for the business through the next 5-6 years.

Financial summary

This review will focus on the financial performance achieved by Network Rail in 2017/18. This year we made a small profit before tax of £48m (2016/17: £483m); every penny of which has been reinvested in delivering the Railway Upgrade Plan. Low and declining profitability is assumed in the CP5 regulatory settlement determination, with a further decrease anticipated next year, the final year of the regulatory control period. This is because income, largely fixed by the regulator, does not increase in line with borrowing costs and depreciation charges, which increase as a result of the accumulated cost of delivering the Railway Upgrade Plan.

Although revenue and operating costs before depreciation increased broadly in line with each other, increased depreciation and finance costs/other gains and losses from delivery of the CP5 investment programme reduced overall profitability to £48m (2017: £483m).

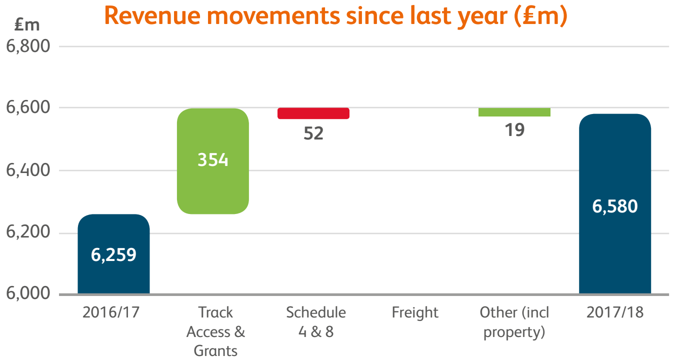
Chief financial officer's review continued



Revenue

Revenue rose in the year, as a company we achieved a turnover of £6,580m. This represents an increase of £321m (2016/17: £6,259m).

Track access and grants rose in line with the rail regulator's determination of charges, augmented by an additional £21m recovered as a joint industry cost with regard to electricity for traction (EC4T).



Schedule 4 & 8 costs increased as the performance benchmarks tightened in the year. Asset performance was good, but performance in the year continued to be impacted by slower recovery times from incidents, a knock on effect of a more congested network. In addition discrete events such as the snow fall in February and March 2018 impacted the results. As a result, compensation paid to train operators increased by £52m.

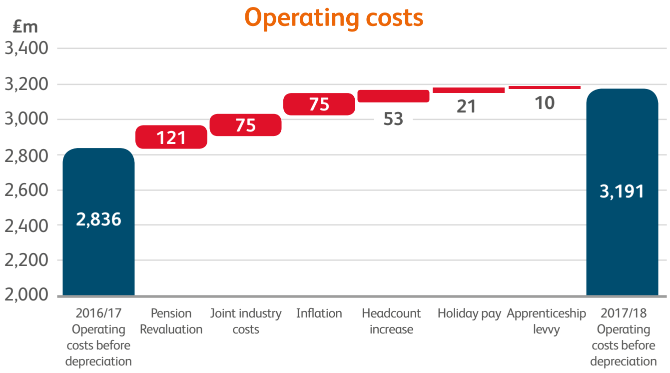
Network Rail also generated an additional £19m of property and other revenue, an increase of around 6 % with continued growth in income from retail at stations, commercial lettings and increased open access income.

Freight revenue maintained at £53m ending a trend of year-on-year declines as a result of lower volumes transported.

Operating costs

Net operating costs this year were £4,731m. This has increased by £468m from last year's expenditure of £4,263m. This increase in expenditure is in part driven by extra investment that has increased depreciation by £124m. Operating costs before depreciation rose by £355m from £2,836m to £3,191m.

This is driven by: non-cash increases in pension liabilities (£121m); Joint Industry Cost increases including cumulo (business) rates at £54m and EC4T £21m (recovered through track access charges); additional headcount (£53m) primarily to enable the delivery of maintenance including new electrification assets; additional costs arising from legislation and legal interpretation such as the apprenticeship levy (£10m) and holiday pay rulings (£21m); and by cost inflation (£75m).



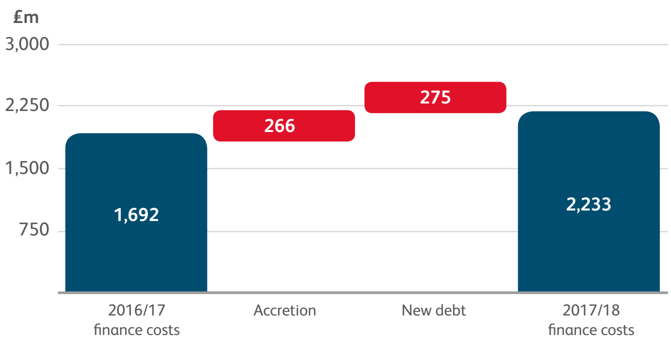
Employee costs

Staff costs increased by £259m largely as a result of an increase in pension costs (£121m), an increase in the average number of employees in the year (£53m), the recent rulings on holiday pay (£21m), and the apprenticeship levy (£10m).

Average headcount for the year was 39,370. This is an increase from 2016/17, when the headcount average for the year totalled 38,529. This was due to recruitment in Route Services to fill maintenance vacancies and reduce overtime costs, and to support new electrification assets; and in Infrastructure Projects to deliver record levels of enhancements.

Financing costs

Finance costs for the year were £2,233m. This is an increase from last year's charge of £1,692m.



Tax

Network Rail has significant brought forward tax losses, not recognised as a tax asset in the accounts. As it continues to invest heavily in the rail network, it therefore pays relatively small amounts of corporation tax. The tax credit for 2017/18 is £27m. Our deferred tax liability has increased to £2.5bn (2016/17: £2.4bn).

Investment in the rail network

The Railway Upgrade Plan continues to transform the rail network. We have over 15,000 live projects, some of the largest and most complex in the world. These mega-projects include Crossrail, Thameslink, Great Western Electrification and the Edinburgh Glasgow Improvement Programme. Network Rail is delivering nearly a quarter of the entire spend on infrastructure in the UK.

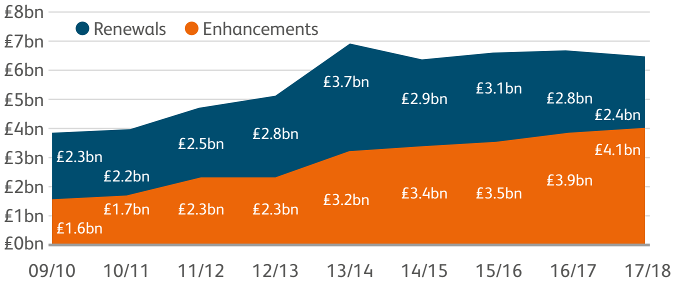
Chief financial officer's review continued

In order to deliver this level of investment we rely on a strong supply chain. Network Rail has a long-standing commitment to engage positively and collaboratively with its supply chain including a fair payment charter.

During the year the collapse of Carillion, one of our major suppliers, represented a major challenge. By working proactively with Carillion's administrators we were able to make sure that Carillion's subcontractors continued to be paid for works delivered on our projects. Furthermore by working with our supply chain we have been able to keep those projects that Carillion was delivering broadly on track.

In the year we continued to deliver historically high levels of investment at £6.6bn in the network (2016/17: £6.8bn).

Capital expenditure



Enhancements that will increase the capacity of the network have amounted to £4.1bn. This is a record year in terms of delivery; beating last year's delivery that was valued at £3.9bn.

We have also invested £2.4bn on renewals this year.

In the year, Network Rail hit 100 % of its seven key renewal volumes (2016/17: 94.6 %), 81 % of its delivery plan & enhancement milestones (2016/17: 73 %) and seven of its top ten renewals and enhancements milestones (2016/17: eight out of 10).

Financial Performance Measure and Efficiencies Drive

Network Rail's key performance indicator with regard to efficiency is its financial performance measure which measures our performance against the regulatory determination and against our in year targets.

Network Rail is constantly working to reduce the cost of all the vital work that we deliver. We continue to make good progress in our commercial efficiencies and will also seek further efficiency through the leverage of new technologies. Network Rail has suffered through Schedule 8 outflows due to performance issues, an increase in incursions onto the railway and adverse weather during the current year which has meant we have had to mitigate this increase in costs through savings found elsewhere, principally in the reduction of central costs.

In the year we missed targets for turnover by £87m and renewals by £55m. We bettered targets for operating costs by £20m and enhancements by £4m.

Turnover was impacted by worse than targeted train performance from infrastructure failures across a number of routes, exacerbated by severe weather, notably the disruptive snow in February and March.

Renewals performance was impacted by higher electrification costs than targeted, including the cost of implementing the Supervisory Control and Data Acquisition (SCADA) Remote Control System, a scheme that improves our asset stewardship capabilities, and in turn drives more efficient performance in the future, and also additional civils costs. Although performance is worse than targeted, there is a marked improvement on the previous year's comparatives and some routes (such as Scotland and South East) have been able to deliver outperformance on their portfolio.

Operating costs benefitted from efficiencies made in central costs following devolution and from a real push by our people to make those marginal gains that drive a leaner organisation. Training in lean techniques continued throughout the year and provided a series of benefits from local teams.

Savings on the Rolling Programme of Electrification and Thameslink enabled enhancements to better target.

The CP5 determination of charges frames the funding agreement with Government for CP5, and included very challenging cost reduction assumptions. These were influenced by extrapolations of historic delivery (40 % reduction in the previous 10 years which, given the growth in traffic over the period, equated to halving the operating costs per train mile) and influenced by the industry wide efficiency potential suggested by the McNulty report.

Last year we explained that Network Rail needed to reduce costs and raise funds by a cumulative total of £2.3bn in the final two years of the control period in order to remain compliant to the loan limit and we are still on course to do so. We have delivered £1.3bn of the total in the current year which consists of a combination of delivery efficiency and removal of activity. We will deliver the remaining £1.0bn next year, through a combination of asset sales and continued business improvement and efficiencies.

Financial framework

The rail 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. This valuation underpins our financial framework.

The basis of this valuation is set out in a note 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. 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, breaching a licence condition, or where the ORR wishes to make a retrospective funding adjustment.

As the valuation of the rail network is based on projected cash flows, we have considered the potential for underperformance in CP5; both in terms of the financial settlement and the required outputs. This therefore reflects the gap between the trajectory of costs assumed in the CP5 determination and our forecasts.

As a result, the valuation of the rail network was increased by £675m (2016/17: decrease £1,075m). This is because we forecast to spend more per activity than the settlement allowed.

Borrowing

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

Chief financial officer's review continued

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 rail network. Network Rail is in line to live within the funding envelope established at the time of agreeing the DfT loan facility.

During the year ended 31 March 2018, Network Rail borrowed £6.7bn 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 £46.3bn to £51.3bn. See page 118 for movement in net borrowing.

Network Rail plans to borrow significantly over the final year of the control period to finance the investment programme. We plan to draw down a further £6.4bn from the agreed DfT loan facility to finance and to refinance maturing debt.

In addition to the DfT loan facility, Network Rail has plans to sell certain assets, increase efficiencies, and find other ways to attract commercial partners in order to deliver more capital investment that will help increase the capacity of the rail network.

Looking forward to Control Period 6 (2019-2024) Network Rail and the DfT have agreed that future funding will not require additional borrowing from government, but will be made available by grants.

Risk management: Interest rates and currency

Network Rail manages its interest and foreign exchange risk by using derivative financial instruments (hedges). All these arrangements were entered prior to Network Rail becoming a public body and will over time reduce in significance, as we expect to have no requirement to enter into new hedging programmes in the future.

The group measures its hedges for accounting purposes at their market value as required by International Financial Reporting Standards (IFRS). 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). The gains on debt and derivative valuations taken through the income statement were £234m (2016/17: loss of £21m). This gain largely represents the reduction of the fair value of interest rate derivatives liabilities through interest paid on swaps (the latter is included in finance costs). In addition, £29m (2016/17: loss of £116m) of gains 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.

Pensions

Network Rail is party to two shared-cost defined benefit pension schemes. Costs are shared with pension scheme members on a 60:40 basis. Pensions are measured differently for IFRS than for actuarial funding reports. IFRS discounts expected future liabilities to a present value, using 'risk-free' borrowing rate, and compares with current asset valuation.

Network Rail's accounting deficit at 31 March 2018 remained at £2,311m (2017: £2,311m) as gains on assets matched the decrease in discount rate from 2.5 % to 2.4 %. On a funding basis the schemes are not considered to be in a significantly different position than at last year end. Assets held by the schemes increased by £226m in the year and the latest actuarial valuation indicates the schemes are more than 100 % funded.

Post balance sheet events

Except as disclosed above, there have not been any significant post balance sheet events, whether adjusting or non-adjusting.

Summary

Network Rail has continued to deliver another huge part of the Railway Upgrade Plan; delivering the highest level of enhancements to the rail network it has ever recorded. These enhancements are designed to improve performance and increase network capacity to assist in meeting the increasing demand for rail travel. To maintain this momentum in the investment programme, Network Rail plans to continue additional funding through the sale of non-core assets and continues to look for additional funding from third parties and internally by delivering further cost efficiencies.

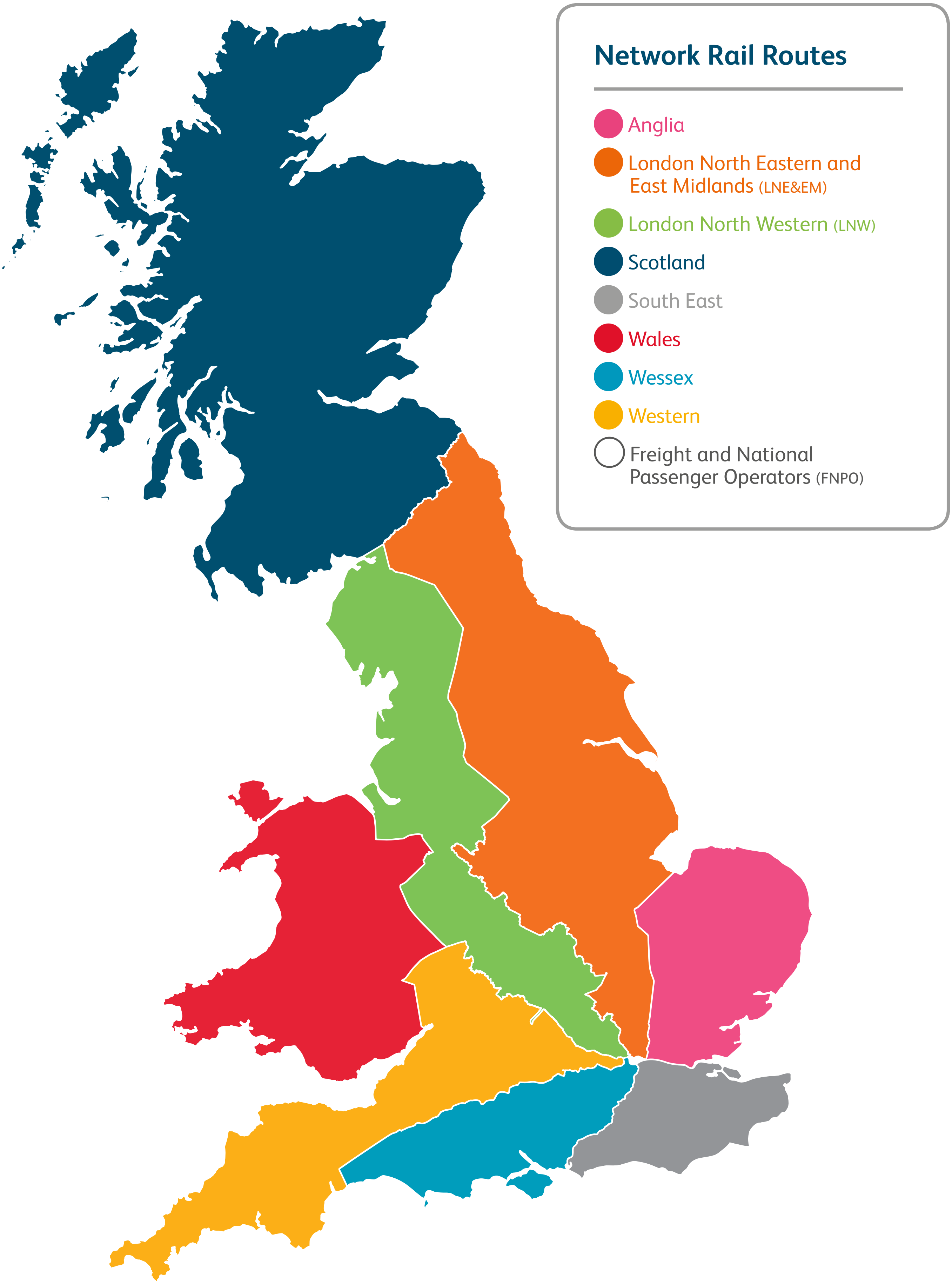
In 2018/19 alongside the delivery of the Railway Upgrade Plan and the final year of CP5, stands the challenge, shared with our industry partners, of managing the implementation of the new capacity we have developed. By 2019 there will be an extra 170,000 seats into major cities across the country every day, with 6,400 extra train services and 5,500 new train carriages; a 30 % increase in capacity. Whilst this presents rail industry-wide challenges to implement, once in place this will be transformational for our customers both now and into the future.

Our CP6 plans are now finalised; a bottom-up plan, highlighting how Network Rail will efficiently spend the funds the government has committed. It is arguably our best plan ever created.

All of which will assist the rail network to drive better connectivity, a precursor to economic growth and build a better railway for a better Britain.

Jeremy Westlake, chief financial officer
27 June 2018

Route performance



Anglia

The Anglia route runs a diverse railway that connects commuters, leisure travellers and freight to vital destinations including Cambridge, Norwich and the City of London. Our rural, coastal and intercity routes connect people across the region and the lines that serve London Liverpool Street station are increasingly popular for commuters. Anglia's railway is a crucial economic gateway connecting businesses and people to three major UK ports at Felixstowe, Thameshaven and Tilbury. It also serves the busy Stansted and Southend Airports.

Key statistics

4,230 passenger and freight services per day

1,697 route miles

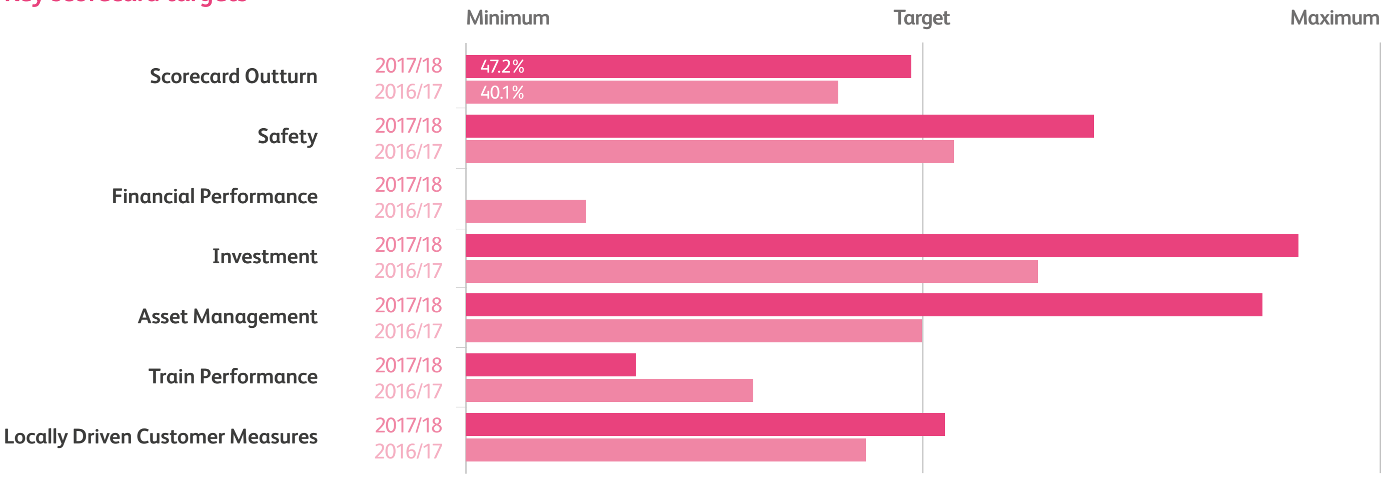
235 stations

770 level crossings

2,500 employees

£517m spent on renewals and enhancements in 2017/18

Key scorecard targets



While we have seen some positive changes in our safety culture, we have not made the progress we wanted to in reducing the number of our people hurt while working on the railway in Anglia. We are, however, adamant that fewer people will be hurt while working on Anglia route and have refreshed our health and safety plan as a result.

The past year has also been a challenging one on train performance. While all four lead operators missed targets, c2c, TfL Rail and London Overground are all running more than nine out of 10 trains on time, Greater Anglia has improved on last year and c2c is the best performing operator in the country.

Higher than anticipated compensation to train operators and additional reactive maintenance expenditure, arising from the challenging performance conditions in 2017/18, were the key factors behind not achieving the financial target.

We have made a considered effort to remove temporary track speed restrictions, which are both disruptive to passengers and freight, and costly to the business. We hit our target to reduce the number of delays caused by infrastructure failures, such as track faults and have installed new uninterrupted power supply units which will prevent the problems we had with signalling earlier this year. We have

Anglia continued

also made real strides in embedding a new team to improve how we respond to operational problems such as signal failures, extreme weather conditions and trespass.

We have reduced the number of railway works complaints by 55 % and exceeded our target of reducing the average age of complaints by 13 days. Much of this has been achieved by a greater focus on pre-notification of disruptive works to our neighbours.

Activities in the year

The last year has seen a number of improvements for passengers and rail users along the route, including the opening of a brand new station at Cambridge North. The new station has created much needed connections to the nearby Science Park and is expected to boost growth of the local economy as well as attracting new housing and businesses. Located next to the A14 and A10, with parking for 450 vehicles and 1,000 cycles, it is helping alleviate congestion on the roads and platforms of Cambridge City.

Safety is of course our key driver and level crossing users are now safer following installation of new technology at user worked crossings, and a new footbridge at Trinity Lane in Cheshunt, one of our highest risk crossings. We recognise we need to do more to help keep our people safe while they work, and have appointed a new director of safety transformation and created a new plan with our workforce and unions to effect a change in culture and behaviour.

Following the delay to the Gospel Oak to Barking electrification project, principally owing to design issues with overhead line structures and the late delivery of materials, the infrastructure on the 14-mile route was substantially completed and energised in January 2018. This was delivered with significant cross-industry collaboration and support of the DfT, TfL, ARL and the freight operators. It is anticipated that the infrastructure, which is available for testing of the new trains, will receive its Authority to Place into Service from the ORR in mid-July 2018. Passengers and neighbours along the route will soon be reaping the benefit of longer, greener and quieter trains.

We have made good progress on two vital projects on the Great Eastern Main Line that will deliver greater reliability and fewer delays. Our work for the Crossrail project means we are closer to enabling Elizabeth line services to run through central London to the west. We have also continued our £290m programme of overhead line renewals and the changes on the Southend Victoria branch line will enable the new Greater Anglia fleet to run with additional services. We once again give our thanks to everyone for their patience as we recognise that there has been a lot of weekend disruption while we deliver these much needed improvements.

In the year ahead

It's going to be another exciting year on Anglia route, with a number of projects drawing to a close. The £25m upgrade of Hackney Wick station completion in May 2018 is helping to better connect the local area and improve access to the station. We will also make significant progress on the Lee Valley Rail Programme, which by May 2019 will deliver a tripling of peak services between Stratford and Angel Road, an upgraded station at Tottenham Hale and a brand new station to serve the Meridian Water housing development in Enfield.

Spring 2019 will also see the completion of the £68m signalling upgrade of the Wherry lines, improving overall safety and reliability of the railway. The Crossrail project and our overhead line renewals programme will continue to forge towards completion. Work to increase much needed freight paths out of Felixstowe Port will also begin in spring 2018, while we await the outcome of a Transport and Works Act Order on safety changes to level crossings. We are also awaiting the outcome of three Transport and Works Act Orders around route-wide level crossing closures across Suffolk, Cambridgeshire and Essex.

Our hi-tech track renewals machines will help us improve the reliability and comfort of travelling by train, and we will continue to work with Greater Anglia to help them introduce a new fleet of trains by 2020. We will continue to focus on maintaining a robust and reliable railway for our customers, and we have plans to further improve the safety of our workforce with additional training, improved briefing materials and a greater focus on leadership.

Efficiency case study:

The Great Eastern Overhead Line Renewal project is renewing the life-expired fixed tension overhead line equipment (OLE) from Liverpool Street to Chelmsford with a modern auto-tensioned system. The old wires, introduced around 1949, sag in hot weather and speed restrictions, which cause delays and cancellations, have to be imposed to run the service safely and prevent further damage to both infrastructure and trains.

This project is already delivering significant benefits through increased reliability and reduced maintenance costs with the new system delivered between Chelmsford and Ilford. Over the last 18 months this project has delivered financial efficiencies of circa £7m. These can be largely attributed to the following:

- De-layering of the supply chain. A direct contractual relationship between Network Rail and specialist SME sub-contractors has resulted in identifying value engineering opportunities. We have also used a new methodology to carry out the work with only two lines closed which has reduced train operator compensation payments and accelerated the programme so fewer closures have been necessary for passengers in total.
- An integrated Network Rail / supplier project team resulting in organisational efficiencies.
- Long-term planning and the implementation of a 'manufacturing' production line approach to the delivery of wire runs has meant we could increase productivity during each session.
- Holistic approach to delivery with suppliers focused and incentivised to complete enabling activities well in advance of the physical wiring works.
- Robust management of the process to secure access to the track to complete works.

Meliha Duymaz,
Route managing director, Anglia
27 June 2018

Strategic report

London North Eastern and East Midlands

The London North Eastern and East Midlands (LNE & EM) route contains strategically important national assets which connect communities and economies across the length and breadth of the country. LNE & EM encompasses three of the country's most important rail corridors: the East Coast Main Line (ECML); the Midland Main Line (MML) and the TransPennine route. Geographically it is the biggest Network Rail route, with 4,600 miles of track spanning the length of the country from Scotland to London via Leeds and Sheffield.

Key statistics

221m passenger journeys each year

3,400 passenger trains every weekday

58m freight tonnes every year, equivalent to 6.9m lorry loads

Serving communities home to **7.6m** people

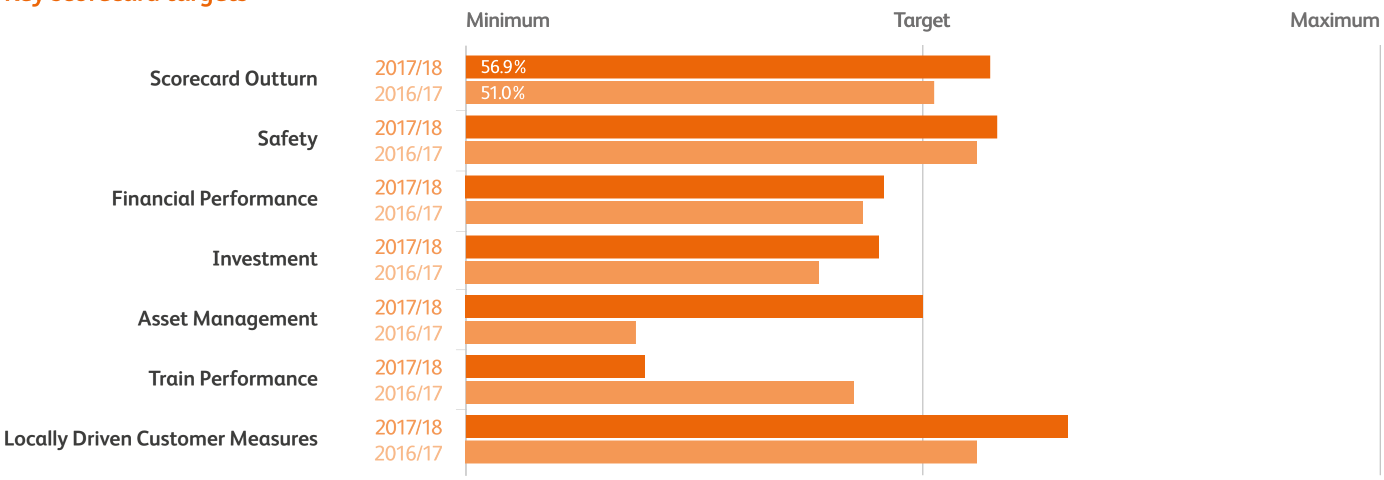
4,600 miles of track

396 stations

5,696 employees

£940m spent on capital expenditure compared to £788m in the previous year

Key scorecard targets



Overall the route has delivered a positive (better than forecast) Financial Performance Measure (FPM) (inclusive of Opex and Capex). But unfortunately missed its overall financial targets; this was mainly driven by the adverse weather at the latter half of the year, which increased compensation payments to train operators, and the loss of planned work. In totality the route has delivered an increase in its overall CAPEX work totalling £940 million, compared to prior financial year of £788m.

Sadly, the impact of suicides on train performance has been significant for Northern, TransPennine Express (TPE), Grand Central, Hull Trains and Virgin Trains East Coast (VTEC). Suicide prevention patrols have been implemented at the south end of the ECML and a programme of lineside fencing enhancements is underway. This follows the very successful introduction of security patrols co-ordinated by a dedicated Network Rail funded British Transport Police inspector which

London North Eastern and East Midlands continued

has seen a 45 % reduction in delays caused by suicides for Govia Thameslink Railway (GTR).

Overhead line equipment failures on the ECML have had a significant impact on Grand Central, Hull Trains and VTEC. We continue to invest heavily in overhead line reliability with a programme of changes to overhead line assets. Overall, improving asset reliability for both Thameslink and Great Northern GTR services has had a positive impact throughout the year.

There have also been a number of external incidents that have impacted performance throughout the year. Performance for East Midlands Trains was impacted by the closure of Nottingham Station earlier this year due to a fire which was later found to be the result of arson. Performance for Northern and TPE was impacted by events at Manchester stations, including the arena bombing near Manchester Victoria and a protest on the tracks at Manchester Piccadilly. The earlier than usual start of autumnal weather conditions compared to recent years also affected performance, particularly for East Midlands Trains, and snow in February affected performance across the route. We have plans in place that will allow us to start the Rail Head Treatment Train programme earlier in 2018 to address issues caused by autumnal weather.

Activities in the year

Over the last year LNE & EM has seen work on the ground increase as we look to deliver key outputs of our enhancement plan towards the end of the current control period. Across all our key London arteries, we are preparing for the introduction of the new Thameslink services and began a series of improvements to our existing infrastructure to improve reliability of track and upgrade overhead line equipment.

The Midland Main Line programme saw its first commissioning of the £130m Kettering to Corby capacity project which was completed on time and to budget in February. In partnership with Derbyshire County Council a new station at Ilkeston was opened for passengers in April 2017 and we have contracted with the London Borough of Barnet to complete the development for a new station at Brent Cross in support of their housing and growth plans.

The East Coast Main Line has seen significant investment in renewing key areas of the electrified railway to improve performance and reliability. Three projects were successfully completed in August 2017 to support the introduction of the new intercity express programme (IEP) trains onto the East Coast Main Line. There has been some successful third party funded project delivery in the year including the rail connection to Rossington Inland Port, a large inland intermodal freight hub that has the potential to support 5,000 jobs.

A significant milestone was reached on TransPennine Route Upgrade with the submission of our proposals to the DfT in December 2017. The submission provided four different scenarios that could be implemented on the route and is currently being reviewed by the DfT. Alongside this, early works ahead of the main work starting in March 2019 have continued at pace, including a new platform, signalling and junction at Micklefield.

In the year ahead

Our role as the LNE & EM route is straightforward; we need to ensure that our railway meets the needs of the communities and economies that it serves. We have already commenced our once in a generation opportunity to realise Digital Railway on the East Coast Main Line, and we will be continuing to bring this to fruition, with all the sustained and transformative cross-industry opportunities it creates.

Next year will also see LNE & EM begin work to deliver the biggest upgrade of the Midland Main Line since it was completed, transforming passenger journeys with cleaner, greener and more services on the electrified railway to Corby as well as 50 % more seats on journeys to London. The East Coast Main Line will see the introduction of the IEP trains, and the biggest infrastructure project in Network Rail for the next few years – the upgrading of the TransPennine route – will begin in earnest.

The work we are undertaking in the coming year is crucial to growing our railway and improving the reliability of our infrastructure, but we will also continue to put safety first, particularly focusing on the safety of our staff, and the safety of the public, on our railway.

Efficiency case study: Million-dollar man (March 2018)

A maintenance delivery unit's stores are a one-stop shop for equipment, tools and parts to keep the railway running. At many stores though, things can get a bit complicated – which can lead to wasted money.

Andy Lewis, professional logistics programme manager, was tasked with making £1,000,000 worth of savings by reviewing the stock at stores across the LNE & EM north area, finding opportunities for unneeded materials to be returned and improving how stock is managed within the stores.

Andy said: "We were aware that stores weren't as efficient as they could be and there was definite room for improvement at a lot of sites. It was a tall order but the project has been a huge success – we reached a million pounds worth of savings and then surpassed our stretched target of £1,100,000. There hasn't been a single week where we've not been able to find some unused stock and get some money back – in one week alone we found more than £100,000 worth of materials to return."

Rob McIntosh,
Route managing director, London North Eastern and East Midlands
27 June 2018

Strategic report

London North Western

London North Western (LNW), the largest of Network Rail's route businesses, is the economic 'Backbone of Britain' - the vital connection between many main cities. We serve all customer segments of the rail market. Our customers travel long distance for business and leisure, competing with domestic airlines. We help carry commuters in and out of Manchester, Liverpool, Birmingham and London. LNW is also a key rail freight route. We are home to the West Coast Main Line, the busiest mixed-use (freight and passengers) railway in Europe, serving London, Birmingham, Manchester, Liverpool, Edinburgh and Glasgow. Our infrastructure runs from London Euston and Marylebone in the South through the Chiltern and West Midlands regions, the North West of England and Cumbria before joining with Scotland at Gretna.

Key statistics

24% of Britain's railway

6,009 train services a day

246.5m passenger journeys each year

7,100 bridges

728 level crossings

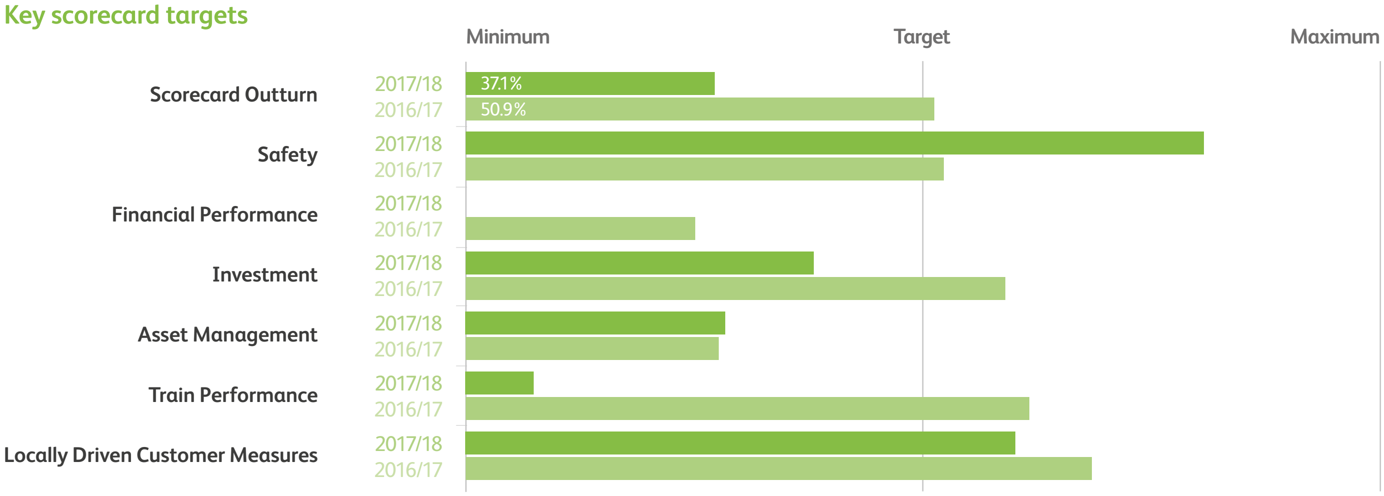
159 signal boxes

571 stations

4,500 track miles

6,853 employees

Key scorecard targets



Activities in the year

Workforce safety performance on LNW was good in 2017/18, exceeding target. But, as always on safety, the job is never done. Safety remains our foremost priority. As we head into 2018/19 we have plans for ongoing workforce campaigns to involve all LNW staff actively participating in workplace safety improvements. Our Take 5 for safety initiative is embedded in everyday life. We remain committed to instilling a safe, caring workforce culture where we welcome everyone and embrace new ideas and fresh thinking.

London North Western continued

Passenger satisfaction at our managed stations (Birmingham New Street, London Euston, Liverpool Lime Street and Manchester Piccadilly) was above target as were railway work complaints. This is something we intend to build on in 2018/19.

The Great North Rail Project (GNRP) hit major milestones as it continued its quest to transform train travel for customers both now and in future. Its achievements included the unveiling of the iconic Ordsall Chord viaduct connecting Manchester's main stations for the first time. Ordsall, together with other GNRP upgrades, will ease rail congestion across the city giving rise to more services in future and improved journey times as far afield as Newcastle. Liverpool Lime Street station underwent stage one of its transformation including the creation of two new platforms. The Blackpool-Preston line was closed for five months for its electrification upgrade, but reopened in April 2018, allowing new electric trains to run along this line.

Unpredictably poor ground conditions hampered progress on the Manchester-Bolton-Preston line electrification. This led to it being delayed from May to December. This challenge was further compounded by the collapse of Carillion, our principal contractor. We remain committed to delivering this scheme. When complete, it will bring faster, more spacious, more reliable electric train services for customers.

The route's financial target was impacted by a high number of trespass incidents on the West Coast Main Line south of Rugby, affecting train performance and increasing Schedule 8 payments to train operators. The delayed completion of the Manchester to Bolton upgrade also had a financial impact and was a contributing factor to some of the performance issues seen when the May 2018timetable was introduced.

Work continued to electrify the Walsall-Rugeley line. The Bromsgrove electrification project will complete two months after its intended May deadline. Meanwhile work is under way on HS2 enabling activity. Consultations continued to take place for the East West Rail 2, Bicester-Bedford scheme.

Train punctuality fell frustratingly short of the record levels achieved on LNW in 2016/17. A combination of factors led to this, notably weather, industrial action by train crew and sadly a high incidence of suicides on the line. As well as impacting operational performance, fatalities between Rugby and Euston had a significant adverse financial impact. Thirty platform patrollers were deployed at stations in this area. Their purpose is to intervene to prevent these tragedies.

In February we submitted to the regulator, the Office of Rail and Road, our Strategic Business Plan for the five years to 2024. It proposes more than £5bn of vital operations, maintenance and renewals activities in support of LNW's CP6 (2019-24) vision: "One team safely delivering excellent service for customers and taxpayers." The plan prepares LNW for the impacts of HS2's construction and for future forecast growth in commuter demand in London, Birmingham, Liverpool and Manchester.

In the year ahead

The GNRP milestones we plan to celebrate in the first half of 2018/19 include the unveiling of Halton Curve, which will enable more frequent services between Chester and Liverpool, and the new Maghull North and Newton le Willows stations, which we have delivered for Merseytravel.

The next major phase of the Liverpool Lime Street transformation takes place in summer 2018. The long-awaited Bromsgrove, Walsall-Rugeley and Manchester-Preston line upgrades are also set to complete in time for the December 2018 timetable change.

Improved safety and efficiency on railway work

LNW's Possession & Delivery team plan track access to carry out safety critical work on the railway. Track possessions need to be carried out when trains are not running. Much of the work takes place at night. The work ranges from routine maintenance to major railway upgrades. In 2017/18 the LNW team oversaw more than 10,000 possessions. By improving the process by which these possessions are planned and delivered, the LNW team has dramatically improved safety and efficiency.

In 2016/17 there were 41 "irregularities". In 2017/18 there were 21. This is still too many. Our aim is to eradicate them completely. But 19 irregularities is a more than 50% improvement on the previous year. "Irregularities" are mistakes by workers putting possession protection in the wrong place. For example, at a complex location with, say, 20 different lines converging on the approach to a station, often in darkness and in foul weather, someone unfamiliar with the track layout could mistakenly block the wrong line. These irregularities can delay work and train services and lead to potentially very serious safety risks for track workers. Delays to trains and work are very costly and can inconvenience customers.

The LNW team achieved this improvement by using practical problem solving (PPS) techniques learnt under the Lean business training programme. PPS led to two major changes: Firstly, we now use signals to define a section of track being shut for work in preference to using sets of points. This reduces the risk of possession protection (eg, detonators and flashing 'stop' warning boards) being placed incorrectly. Secondly, possession staff rotas are now drawn up to ensure there is an 'expert' at every complex track layout where we take a possession. This ensures safety critical knowledge is always in the right place at the right time.

Martin Frobisher,
Route managing director,
London North Western
27 June 2018

Scotland

For the past three years Scotland's railways have been managed under a single leadership team, the ScotRail Alliance. Together, this partnership, formed of Network Rail and Abellio ScotRail, run a range of domestic and cross border services. Passengers use the network for leisure and short distance travel, as well as daily commuter and intercity services. The rail industry in Scotland is key to the country's economic success, contributing up to £670m per year. As use of the network increases we are working closely with the Scottish Government and other stakeholders in order to deliver and enhance services for passengers that provide vital links between communities and employment, industries and markets.

Key statistics

96m passenger journeys each year

2,500 passenger trains every day

1,718 route miles

358 stations

591 level crossings

2,580 employees

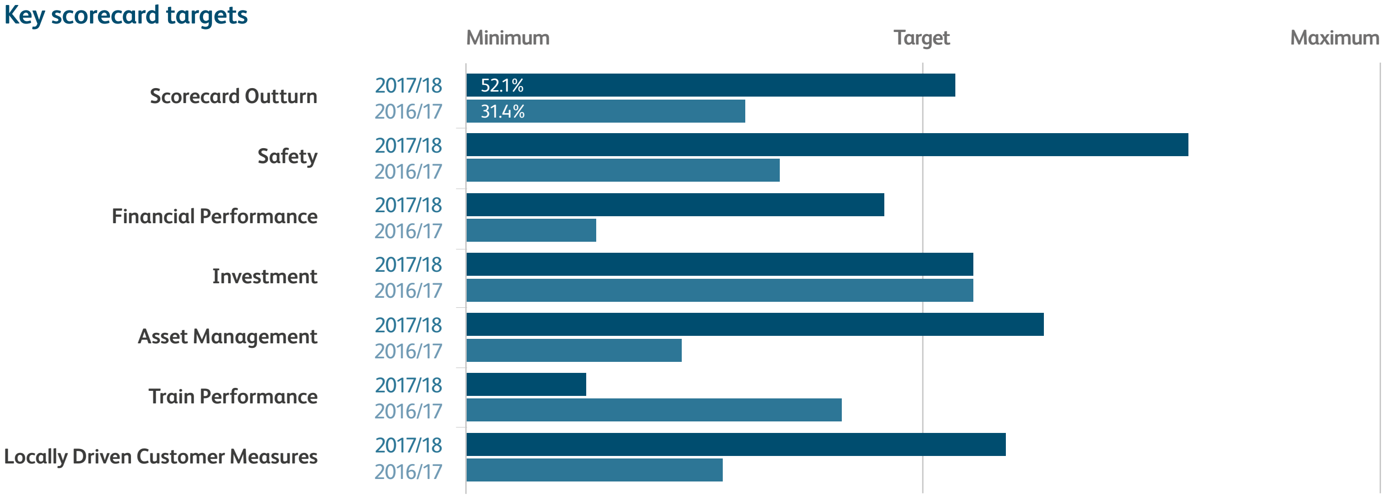
Working with over **160** suppliers

£704 spent on infrastructure renewals and enhancements

12,000 freight trains that run to, from or within Scotland per year

4.2mt of product has been transported to, from and within Scotland excluding coal in the last 12 months.

Key scorecard targets



Safety remains a key focus across the route with Lost Time Injury Frequency Rates (LTIFR) showing an improvement year on year. Efforts to instil a safety conscious culture continue with the development of safety briefing videos that are used to help engage front line members of staff. Nonetheless, there have been some operational incidents that serve as a reminder of the need to focus ever more on getting our processes and assurance at the front end of our business up to the very highest standards.

Train performance continues to be a concern for the route with public performance measures declining year on year,

Scotland continued

currently at 89.7 %, down 2 % against our target. Following a difficult autumn, performance was further affected by a number of weather related incidents including Storm Caroline and "The Beast from the East" which had a hugely negative impact given the scale and remoteness of our network.

Heavy rain, winter weather and the subsequent thawing of snow and ice resulted in two major incidents causing parts of the network to be closed for a short time. Landslides on the Glasgow to Anniesland via Maryhill line caused a huge number of public performance measure failures, while the line between Fort William and Mallaig was also blocked due to a landslip.

The derailment of a High Output Ballast train on the line at Ravenstruther, caused by excessive ballast coming off the machine's belt, was also a major contributor to the overall train performance for the year.

Some elements of financial performance have suffered as a result of the poor train performance last year. Endeavours are being made across the business to improve processes and identify new, innovative and more efficient ways of working to address this decline. We continue to work hard with ScotRail, our Alliance partner, to deliver an improved service led by a single managing director and senior management team.

Activities in the year

The Edinburgh Glasgow Improvement Programme (EGIP) completed the electrification works of the Edinburgh to Glasgow via Falkirk High Line and the route was energised for electric trains in October. Electrification of the route allowing electric trains to operate will help to deliver a 20 % reduction in journey times and adds 30 % more capacity when the new ScotRail electric fleet is introduced later in the year.

The Edinburgh Waverley improvement works will increase capacity and operational flexibility at the station. Platform 12 was completed in December 2017 and accommodates the new eight-car class-385 electric trains being introduced by ScotRail later in 2018. The Intercity Express Programme (IEP) is introducing longer platforms to the east of the station, accommodating greater capacity from the East Coast Main Line (ECML). The newly constructed Edinburgh Gateway Station received the 'Building award' at the Saltire Scottish Civil Engineering Awards.

The Aberdeen to Inverness project celebrated the opening of the new Forres station as part of the work to improve capacity between the two major cities in the North of Scotland. Other work carried out included platform extensions and an upgrade to the level crossing at Elgin as well as signalling work on the line.

The electrification projects to support the introduction of new electric trains from Grangemouth Junction through Falkirk Grahamston and Stirling to Alloa and Dunblane continue with preparatory work being undertaken including altering bridges, piling and installing masts.

The Highland Main Line celebrated the completion of the Findhorn Viaduct refurbishment with £4.5m invested to improve the structure and ensure it is fit for purpose for future generations.

The Access for All programme has delivered improved accessibility at a number of stations across the country, with new lifts, stairs and footbridges installed to enhance the facilities for people with reduced mobility.

In the year ahead

Our aim for next year is to deliver a punctual and reliable railway for passenger and freight services in Scotland and across the border. A number of the projects will be nearing completion with further improvement works taking place across the route.

Edinburgh Waverley station will see further capacity improvements with the completion of extensions to platforms five and six to accommodate the new 10-car Azuma Intercity Express trains. Dunbar station will see the start of construction of a new second platform to help improve capacity on the East Coast Main Line, expected for completion in 2020.

The delivery of the Stirling, Dunblane and Alloa electrification will facilitate the final improvements on the Edinburgh Glasgow corridor resulting in 30 % increased capacity and reduced journey times, with the fastest journey expected to be around 42 minutes.

The Shotts electrification project will include platform extensions to a number of stations including Shotts, Carfin and West Calder, while Livingston South station will be reconstructed. Expected to be complete in 2019, the project will create the fourth fully electrified line connecting Scotland's largest cities.

The redevelopment of Glasgow Queen's Street station will continue providing extended platforms for longer trains and creating a brighter and more spacious facility that is set to be complete in 2020, that will be fully accessible.

Dual track will be installed between Aberdeen and Inverurie to reduce journey times and increase the number of trains available. Two new stations will be constructed at Dalcross and Kintore to improve accessibility for local communities.

Works will commence on the Highland Main Line that will support the introduction of the longer High Speed Trains, which will start to be introduced on the route later this year. In addition to these works we will be developing proposals to improve the access arrangements within stations on the line.

Efficiency case study:

Scotland has delivered a fundamental change in delivery of signalling maintenance through risk based maintenance. A review of the condition of the asset had been undertaken and maintenance schedules smoothed and realigned to minimise travelling time and maximise productivity. This has resulted in significant savings, reduced backlog and improved asset reliability.

Alex Hynes,
Route managing director,
Scotland
27 June 2018

South East

The South East route delivers almost a third of the total passenger journeys across the network. Our infrastructure connects the capital and its southern and south-eastern suburbs with Kent, Surrey, Sussex and Channel Tunnel routes to Europe and we manage four of the busiest stations in the country – London Victoria, London Bridge, Charing Cross and Cannon Street. Commuters make up the largest proportion of our passengers, but we also carry leisure travellers to the south coast and run the line to and from Gatwick, the UK's second busiest airport.

Key statistics

510m passenger journeys each year

5,000 passenger trains every day

2,000 route miles

372 stations

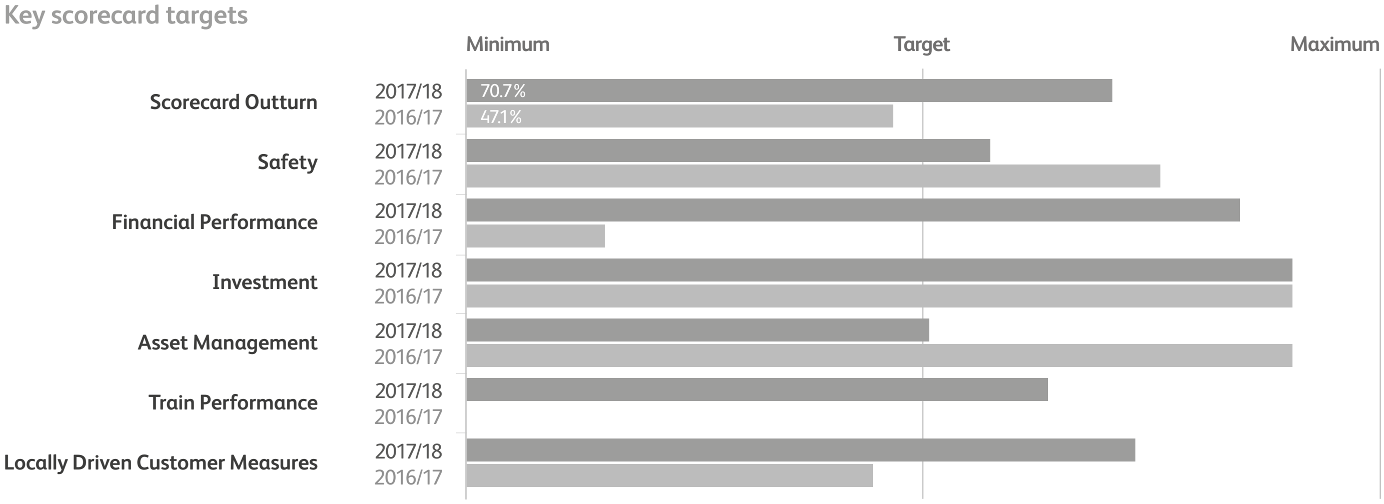
3,000 employees

6,700 freight services in 2017/18

23% freight growth since 2014

£903m spent on renewals and enhancements in 2017/18

Key scorecard targets



This has been a truly transformational year for the South East route; the underlying performance of our assets and our people has improved dramatically and our customers are feeling the benefit – though it's clear there is still much more we can do.

We continue to embed a strong safety culture, with improvement in the number of Close Calls raised and closed within 90 days. While our lost time injury frequency rate (LTIFR) has deteriorated this year, it improved in the second half of the year following the appointment of a Safety Transformation Director, with more mature improvement plans and stronger, more inclusive governance arrangements now in place to drive cultural change.

South East continued

Train performance has improved this year, driven largely by greater collaboration with our train operators – a great example of which is our new joint performance teams with GTR and Southeastern, who are setting the standard for joint working across the industry.

That said, performance remains among the lowest on the network and the year has not been without challenges, including adverse weather, a spike in trespass and suicides and major incidents such as the London Bridge terror attacks. The successful completion of our work around London Bridge as part of the Thameslink Programme, including the fantastic new concourse and extra platforms, means passengers are now beginning to feel the benefits.

Asset reliability remains high, though increasing congestion on the route means that any incident can cause disproportionate knock-on impacts for passengers. That is why we are focusing on further reducing our fault response times and investing in intelligent infrastructure such as remote condition monitoring.

Financial performance overall was positive, thanks largely to improved railway performance resulting in lower-than-forecast compensation payments to train operators. Looking to the future, we submitted robust, well-evidenced plans for the next control period following consultation with, and scrutiny by, a wide range of stakeholders in support of our vision for the South East route.

The improvements we have delivered this year underline that the team in place on South East are some of the most committed and talented people within Network Rail. We continue to invest in our people's development and I am delighted that our new leadership programmes are already delivering benefits for hundreds of people across the route.

Activities in the year

The infrastructure upgrades successfully completed this year, primarily through the Thameslink Programme, have set the foundation for significant improvements for passengers. The iconic, new London Bridge station is now fully open to passengers and we have completed all track and signalling work in the surrounding area to enable service improvements in the future.

An additional platform at Redhill on the Brighton Main Line, commissioned in January, will support the new timetable and could allow an enhanced service on the North Downs line between Reading and Redhill in future, offering better connections to Gatwick Airport.

We have delivered major work as part of a £300m asset resilience programme, including a junction renewal at Earlswood, drainage improvements through Sevenoaks Tunnel and vegetation and trespass management along the busiest parts of our route – all designed to reduce delays and provide a better service for passengers.

Signalling work at Ashford International means the new Eurostar rolling stock will be able to continue serving the station, which is of huge economic importance to the whole of Kent. We have also made progress on power supply upgrades in Kent and Sussex to support longer and more frequent services.

The opening of a number of footbridges over the railway means we have been able to close some of our high-risk level crossings – such as Stone Crossing near Dartford and the last remaining footpath crossing over the four-track Brighton Main Line at Salfords.

In the year ahead

By far the most significant event of the new financial year is the May 2018 timetable change. It is clear that we in the rail industry have let passengers down in the way the new timetable has been planned and introduced; for that, I am very sorry.

Network Rail and GTR are working together on a recovery plan which will give passengers the reliability they expect and deserve. Once that stability has been achieved, our focus will turn to delivering the remainder of the capacity and connectivity benefits enabled by completion of the Thameslink Programme.

Elsewhere on the route, additional capacity will be provided through enhancements, such as power supply upgrades, which enable longer trains. Further stations will see step-free access enhancements being delivered, benefiting a wide range of passengers.

We will also complete our work as part of the £300m resilience programme, including two nine-day planned closures of the railway between Three Bridges and Brighton in October 2018 and February 2019 to enable major improvements to tracks, signalling and tunnel drainage and provide a more reliable service for passengers.

Efficiency case study: Improving safety at depots and sidings

A project to improve public and workforce safety at depots and sidings in Kent by installing and refurbishing walkways, handrails and other improvements has delivered efficiency savings of £3.7m against the budgeted estimate.

This was primarily achieved through the use of 'structured continuous improvement' tools taught on an in-house leadership programme. This included tendering and packaging delivery of similar works to eliminate waste, deliver appropriate site-by-site solutions rather than 'one size fits all' and avoiding scope changes by ensuring those working at depots and sidings were engaged from the start.

John Halsall,
Route managing director,
South East
27 June 2018

Wales

The railway in Wales and Borders connects people, businesses and communities to support both regional and national economic growth. Almost 50 % more passenger journeys are made to, from and within Wales than a decade ago. We employ well over 6,000 people directly or indirectly and spend tens of millions of pounds with local suppliers every year.

Our devolved leadership team works within a national framework while proactively supporting the aspirations of Transport for Wales, Welsh Government, the Department for Transport and the wider Wales and Borders stakeholder community. Our route Supervisory Board, chaired independently, ensures we build on our partnership approach; the Board holds the industry to account, brings track and train closer together and supports improvements to passenger services.

Key statistics

30.4m passenger journeys each year

1,100 level crossings

3,002 bridges

1,340 services per day

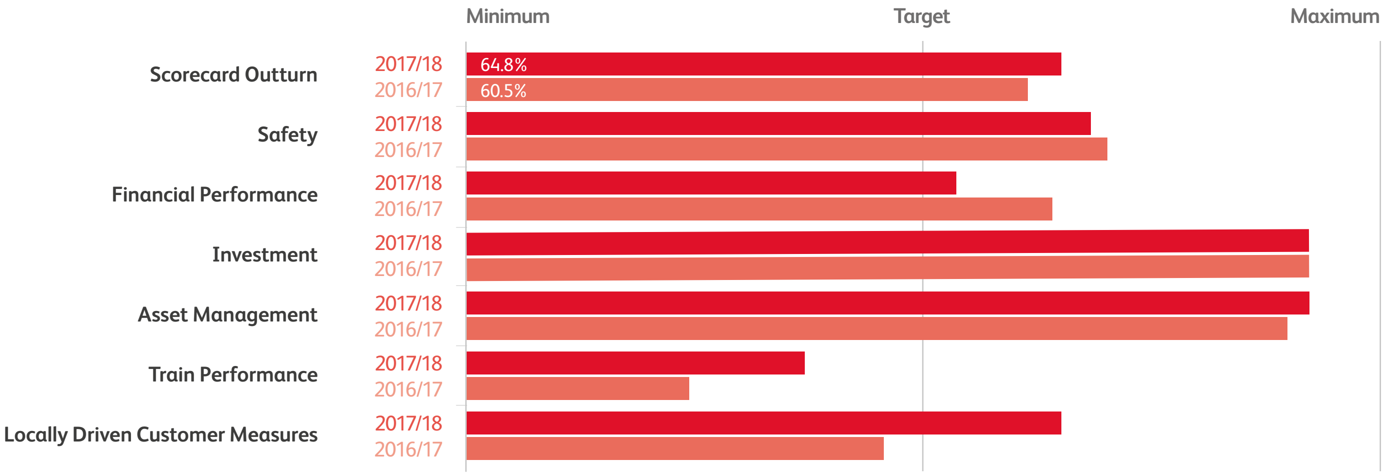
1,505 track miles

248 stations

1,600 employees

£395m spent on renewals and enhancements last year

Key scorecard targets



We have seen some great improvements in safety for our workforce and for the communities we serve. This year we closed six level crossings and commissioned 13 audible warning devices on level crossings across our route, as part of our level crossing risk reduction programme. Our workforce lost time injury (LTI) frequency rate has improved by 33 % as a result of a reduction in staff lost time accidents - from 23 to just 17 LTIs in the year.

Our Public Performance Measure (PPM) was 92.2 %, slightly below target. However, this was a 0.3 % improvement on last year's figure. Wales and Borders has the lowest level of

Wales continued

delays recorded for each incident which occurs on the network, with less than 5 % of the overall national delay minutes occurring within the route.

Working in partnership with our train and freight operating companies, we achieved a further reduction in service affecting failures which improved by 4.5 %. This builds on last year's improvement of 14.5 %, bringing us to 19 % in the last two years, and resulting in more consistent journeys for passengers and freight customers with fewer delays or cancellations associated with infrastructure failures. We also delivered within our budget, which included efficiency savings of 4.5 %.

We owe our success to the great teams of people across Wales and Borders. Our route people engagement score of 68 % was above national best practice and above Network Rail's overall score of 53 %.

Activities in the year

Our lead train operator, Arriva Trains Wales, was the most reliable operator in 2017, achieving an average of 82.8 % of trains arriving at their terminating station early or within 59 seconds of schedule. The flagship £300m Cardiff area signalling renewal scheme continued to contribute to significant performance improvements on the Valley Lines (which carry 50 % of route services and passengers), consistently achieving over 95 % of trains arriving within five minutes of their scheduled time. This boost in performance has meant a huge improvement to the day to day lives of thousands of passengers.

We also delivered 100 % of our key renewals volumes representing £175m capital investment. This included the North Wales Coast modular signalling and a successful high output programme, resulting in a more reliable railway for passengers. We completed a number of bridge renewals and refurbishments including a major upgrade of the 100-plus year old Llanfairpwll station footbridge, creating a bridge fit for this popular tourist destination.

We also completed a number of third-party funded investment projects, principally funded by Welsh Government. These include the commissioning of the North South Wales Enhancement Project, unlocking the potential for faster and more frequent services between Holyhead and Cardiff. Improvements were also made to Treherbert and Machynlleth stations to make them fully accessible to passengers, opening up the railway to those who may not have been able to use it previously and new highways and overbridges at Talerddig enabling us to close level crossings and eliminate their risk to the community.

The National Rail Passenger Survey results in February indicated that 79 % of passengers are dissatisfied with crowding on trains. Network Rail has been helping Arriva Trains Wales and Transport for Wales identify solutions for providing more seats for passengers.

Our collaborative approach during the Champions League final in Cardiff was praised by Ken Skates, the Welsh Government's Cabinet Secretary for Economy and Infrastructure, who thanked us for helping to get passengers safely to and from this global event. Mr Skates also praised the rail industry during Storm Emma in March 2018, and the teams who worked tirelessly in exceptionally challenging weather conditions.

We worked with our train operating partners to respond with one voice to stakeholder issues. The Welsh Assembly Members' (AMs) favourability survey of January 2018 found that for the first time in ten years, over 90 % of AMs were familiar with Network Rail, and a third of those surveyed agreed that devolution of Network Rail in Wales is improving the performance of the network.

In the past year we have acted on the results of the previous employee survey, such as refurbishing staff facilities and helping staff find more volunteering opportunities. We have attracted new talent through our apprenticeship and graduate schemes and deployed our science, technology, engineering and maths (STEM) ambassadors to schools and colleges across the route. Our workplace diversity and inclusion champions programme appointed 11 new champions in the last quarter, bringing our total to 33, and this year 12 women participated in our women in leadership programme with ChwaraeTeg (Fair Play). More women are working in the railway in Wales than ever before and half of the Wales and Borders leadership team are now women.

In the year ahead

The final year of Control Period 5 is an exciting time for Wales and Borders. We will continue our mission to run a safe, reliable, efficient and growing railway that better meets the needs of passengers and provides maximum value for taxpayers and our funders.

Over the next year we are renewing track along the North Wales Coast Line, upgrading signalling between Port Talbot and Swansea and modernising the South Wales Main Line. Another 116 projects are also planned over the next 12 months to repair, renew and refurbish our assets across Wales and Borders.

We anticipate that KeolisAmey, the new Transport for Wales franchised train operating company, who will take over the reins from Arriva in October, will bring significantly increased passenger service performance and additional capacity. During the months ahead we will work with Arriva and the Welsh Government to ensure a smooth transition into the new franchise and with Transport for Wales to implement plans to begin improving the experience for passengers.

Our route Strategic Business Plan for our next funding period, Control Period 6, will be published following the Office of Rail and Road's final determination. The plan has the support of the Welsh Government and seeks to deliver many diverse schemes and local improvements which benefit as many rail users as possible across Wales and Borders.

Efficiency case study:

Devolving energy and utilities has enabled us to make efficiency savings of £846,000. This improved management of energy and water will continue to save us £234,000 every year.

Andy Thomas,
Route managing director,
Wales
27 June 2018

Wessex

The Wessex route is one of the busiest in the UK, providing a vital economic artery into central London from the south coast, with 230 million passenger journeys each year generating £1bn in revenue.

As well as a commuter service connecting many towns and cities between London and the south coast, the route is an important freight link for the UK, bringing goods in and out of Southampton docks, one of the country's busiest deep-water ports. Our network also plays a key role in supporting tourism and weekend travel across the region.

Our biggest challenge is peak-time capacity. Passenger numbers on Wessex continue to grow, having more than doubled in the last 20 years. London Waterloo is the busiest transport terminal in the UK, with almost 100 million passengers travelling through the station each year.

Key statistics

230m passenger journeys each year

More than **2,000** passenger and freight services

Around **1,180** miles of track

More than **200** stations

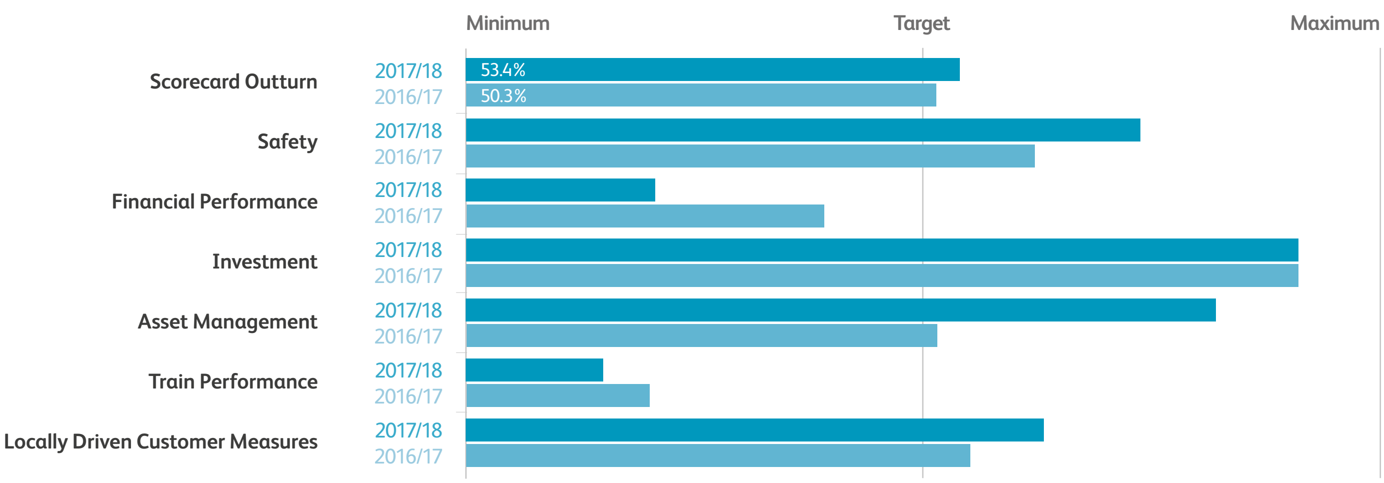
323 level crossings

1,924 bridges

1,878 employees

£328m spent on renewals and enhancements on the route from 2014-2019 (CP5)

Key scorecard targets



Wessex continued

Safety is our number one priority and we are pleased to have achieved a 29 % reduction in our Lost Time Injury Frequency Rate this year. We have continued to hold our safety workshops for frontline staff, which more than 1,000 employees registered to attend, and held more than 25 events across the route on a variety of safety topics as part of Trade Union Health and Safety Week.

We have made good progress in terms of our relationships with those who live close to the railway, reducing the number of railway worker complaints significantly. Through targeted communications, keeping our neighbours informed of planned works as well as upskilling our teams and highlighting the effect their actions have on our neighbours and our reputation, we have reduced the number of complaints by 52 %.

It has been a challenging year for train performance and we have not achieved the level we wanted to over the last 12 months. Post-commissioning problems following the Waterloo upgrade last August undermined overall performance and had a negative impact on PPM figures, as did a number of infrastructure, weather and fleet issues. In April 2018 the Secretary of State, Chris Grayling, commissioned an independent review into South Western Railway performance, and we expect the results of this to be published later this year. In the meantime, we are working hard, in alliance with our colleagues at South Western Railway, to address these performance issues. Service affecting infrastructure failures are down 6 % from 2016/17. This represents a 27 % improvement over the control period to date. Intelligent infrastructure also saw us intervene on nearly 500 occasions in advance of a predicted failure that may have disrupted services.

Since we welcomed South Western Railway on to the route in August 2017, we have been working closely to improve reliability and punctuality for our passengers. We were pleased to set out our plans together at a public meeting with Transport Focus in January 2018. This includes introducing new teams to deal with any incidents on the network 24 hours a day, 365 days a year; increasing the number of infrastructure inspections in the Waterloo area to fix problems before they turn into delays and rolling out new technology to avoid teams going onto the track to disconnect the power, which is safer for our staff and lessens disruption for passengers.

As part of our alliance agreement, we have also introduced joint performance teams and are in the process of finalising our joint performance improvement plans.

Train performance affects financial performance due to the compensation we are required to pay train operating companies for delays. We have been focused on where we spend our money, investing in improvements that will deliver business benefits, while ensuring we remain cash compliant.

Activities in the year

We have made great strides in reducing risk at level crossings, including completing outline designs on two new bridges at Farnborough North and White Hart Lane. We have also closed two level crossings, Shortwood Common and Enham, improving safety on the railway.

We completed the most complex phase of the £800 million Waterloo and South West Upgrade, rebuilding platforms at Waterloo station while keeping trains moving. Thanks to this work, new ten car trains are now running on our route, giving our passengers more space.

We carried out a range of successful renewals across our network, providing passengers with more reliable journeys. This includes investing £8 million on renewing tracks in Southampton and investing more than £7 million to replace life-expired Victorian bridges in Portsmouth and South West London.

Our people are key to the success of our business. A diverse and inclusive work environment is one where people feel trusted, supported and able to bring their whole selves to work. This year we increased the number of diversity and inclusion champions on the route to more than 60, launched our Inspire network and have increased our female workforce by 2.49 %.

In the year ahead

We will:

- Complete the final phase of the Waterloo and South West Upgrade with the reopening of the former Waterloo International Terminal in December 2018, creating five new high-frequency platforms. This, alongside the work completed last year, will provide 30 % more peak time capacity at Waterloo.
- Complete work at Twickenham station with improved facilities, a new public plaza and 115 new homes, as well as moving forward with the approved proposal for the re-development of Guildford station featuring a new station building and 438 new homes. We will also continue to work with Reading Borough Council on construction of a new Reading Green Park station.
- Continue our extensive programme of track renewals and level crossing closures, while working with industry to agree a long term solution in tackling overcrowding at Clapham Junction and laying the groundwork for our significant re-signalling work at Feltham, helping prepare us for the digital railway.
- Remain focused on our people. Next year we will look to extend our reverse mentoring programme, complete the roll out of our Everyone Learning Programme and continue to focus on our Science, Technology, Engineering and Mathematics (STEM) ambassador early engagement programme with local schools and colleges.

Efficiency case study:

We have continued to deliver our efficiency plans, of particular interest is our Faster, Safer Isolations work which, as demonstrated during the recent successful trial in the Guildford area, will provide us with the opportunity to increase the amount of productive time within mid-week night possessions by up to 20 %. These possessions will be taken using fewer members of staff (so they can take part in more productive work) and involve fewer vehicle miles travelled.

Becky Lumlock,
Route managing director,
Wessex
27 June 2018

Western

The Western route stretches from London across the Thames Valley to Oxford, Worcestershire, the Cotswolds, the West and South West, serving some of Britain's most important towns and cities. We own, maintain and operate more than 1,847 miles of track and manage Paddington, Reading and Bristol Temple Meads stations. We transport hundreds of thousands of workers on their daily commutes, and connect national and international travellers with some of Britain's most popular tourist sites. For many people, their first experience of the UK is the rail line linking Heathrow, Europe's busiest airport, to the Western route's busiest station, London Paddington.

Key statistics

92m passenger journeys each year

2,200 train services per day

c. 6m tonnes of stone, steel and petroleum carried annually

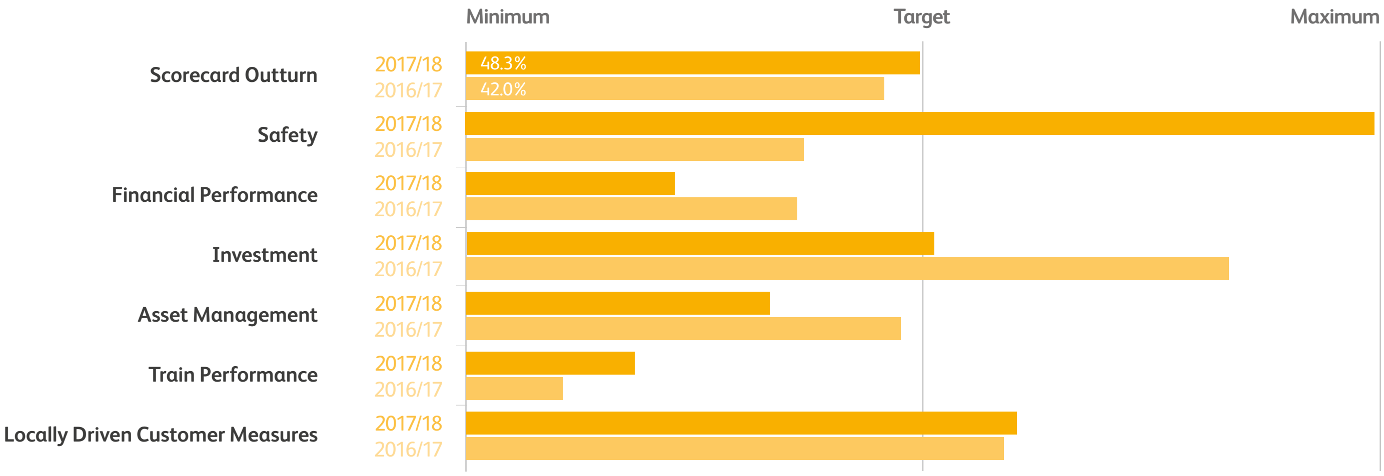
2,839 bridges

650 level crossings

2,600 employees

£1,150m spent on renewals and enhancements on the route in 2017/18

Key scorecard targets



Activities in the year

We have made excellent progress on safety this year, with positive results across the board, including an impressive 32% reduction in lost time injuries across our workforce. Looking after our workforce is important to us: we want great people working in a great culture, so it was good to exceed our people measure target for this year. We have set further ambitious goals for the coming year, including significant investment in front-line accommodation, and we are committed to attracting and nurturing the strongest talent regardless of race, gender, religion or sexual orientation.

Western continued

2017/18 has also been a strong year of delivery, with key projects coming online after several years' work, bringing benefits which are being felt by thousands of passengers across the route. The upgrades and improvements we have made to power, signalling, track and stations across the route are enabling the largest fleet upgrade in a generation.

Last year the first brand-new class 387 Electrostar trains started to run between Paddington and Hayes & Harlington; they extended their range to Maidenhead in May 2017 and to Didcot by December as we delivered new overhead electric power lines to Didcot. In addition to greater comfort and reliability, each train offers up to 30 % more seats. This influx of new rolling stock into the Thames Valley has released a fleet of newer Class 165/6 Turbo trains to move to the West and South West, improving services on local Bristol, Exeter and Cardiff routes.

Just as significant has been the arrival of the new GWR Intercity Express Trains which can operate in diesel and electric modes with faster acceleration and braking which reduces journey times. These new trains provide 10 % more seats into and out of London Paddington during peak hours and 20 % more seats through Bristol Temple Meads.

This year we welcomed a new operator to our route in the form of MTR Crossrail, who are operating the Elizabeth line on behalf of Transport for London and managing stations between Acton Main Line and Twyford. The effort to prepare the network for the new Class 345 trains, which the service will use, was a major part of our work at Christmas 2017.

Our Railway Upgrade Programme includes continuing weather resilience work across the South West, notably major drainage works at Hinksey and Chipping Sodbury, the start of Cornwall resignalling, enabling increased services between Plymouth and Penzance, and the commissioning of a new platform at Bristol Parkway. This will improve the reliability of both direct GWR services between Bristol and London and CrossCountry Services. The fact that we have managed to significantly reduce complaints by lineside neighbours during this volume of work is testament to our commitment to being a good neighbour.

Behind all of this success is our Alliance with Great Western Railway. This partnership, supported by the independently-chaired Route Supervisory Board, has given us a sharper focus on customer service and enabled us to deliver benefits while minimising disruption and cost. The new timetable introduced on 2 January 2018 was just one direct result of this ethos of joint working, which is being applied to other operators, including Heathrow Express, CrossCountry and the freight operators.

Both train performance and asset reliability have fallen short of target (despite asset performance having a strong recovery in the second half of the year) but we have aggressive short- and long-term plans to rectify this, such as the replacement of track circuits in the Paddington area, which will help improve reliability.

Financial performance has been negatively impacted, largely due to increased compensation paid to train operating companies. This arose from our asset performance during the summer and autumn (some but not all of which was weather-related), plus the effects of the snow and storms towards the end of the year. Our track renewals programme has also been impacted as we balance the huge demands for track access on our route with the need to minimise the impact on passengers.

Delivery against our financial plans in operations, maintenance, renewals and other income has been on plan with a number of additional efficiencies delivered. Strong management and control of our route-wide expenditure has resulted in an overall neutral cash position despite the financial challenges we faced.

In the year ahead

Over Easter 2018 we replaced the signals in the Bristol area, the single largest programme of its type ever undertaken by Network Rail, relocating most of Bristol's signal control to our Didcot signalling centre. This year we will also install two extra tracks into Bristol at Filton Bank. The combined result of all this work will enable more and faster services between Bristol and London from 2019. We will work to complete the Great Western electrification programme to Cardiff and Newbury, extending the benefits of electric trains to more passengers.

The new 2019 Western timetable will improve journeys, providing more services with more seats, faster journey times and new connections across the route.

The biggest change for the Thames Valley will come with the arrival of the Elizabeth line. Our focus for 2018/19 will be the final work on this huge programme and the integration of the new lines onto the network in advance of the Elizabeth line opening fully in December 2019. This line will run from Reading to Paddington, through new tunnels under London, to Essex and Kent, increasing the total rail capacity for London by 10 %. Benefits to passengers will start to be felt from summer of this year as MTR take over some services from Paddington using new Class 345 trains. Meanwhile we will continue to develop plans for a Western Rail Link to Heathrow, and third party schemes such as MetroWest. The Western route is being transformed, with new trains, more seats, greater capacity and better connections, and this remains one of the most exciting periods for our railways in generations.

Efficiency case study:

Didcot/Cocklebury sidings: The electrification of the Great Western Main Line is bringing a new fleet of electric trains to the route. The new longer trains require new longer sidings for when they are not in use. The original plan was for the new sidings to be located at Didcot. However, following collaboration between GWR and Network Rail it was identified that it would be possible to locate the new sidings at existing facilities in Cocklebury, Swindon, and by agreeing this change a saving of approximately £11m was made.

Mark Langman,
Route managing director, Western
27 June 2018

Freight and National Passenger Operators

Freight and National Passenger Operators route (FNPO) manages nationally focused customers whose interests extend across our geographical routes' boundaries. As well as freight operating companies (FOCs), customers include CrossCountry, Caledonian Sleeper, charter operators and aspirant open access passenger operators.

FNPO is different to the other routes: we do not directly manage assets or control train operations, but deliver by working closely with and through the geographic routes, System Operator and other parts of Network Rail. We are accountable for the delivery of performance and other outputs for our customers and provide them with a principal point of contact.

Key statistics

Together, our customers operate around **1,000** trains a day including **600** freight trains

Rail freight removes **7.6m** lorry journeys from the roads annually

The FNPO team has **68** members of staff, **38** % of whom are female

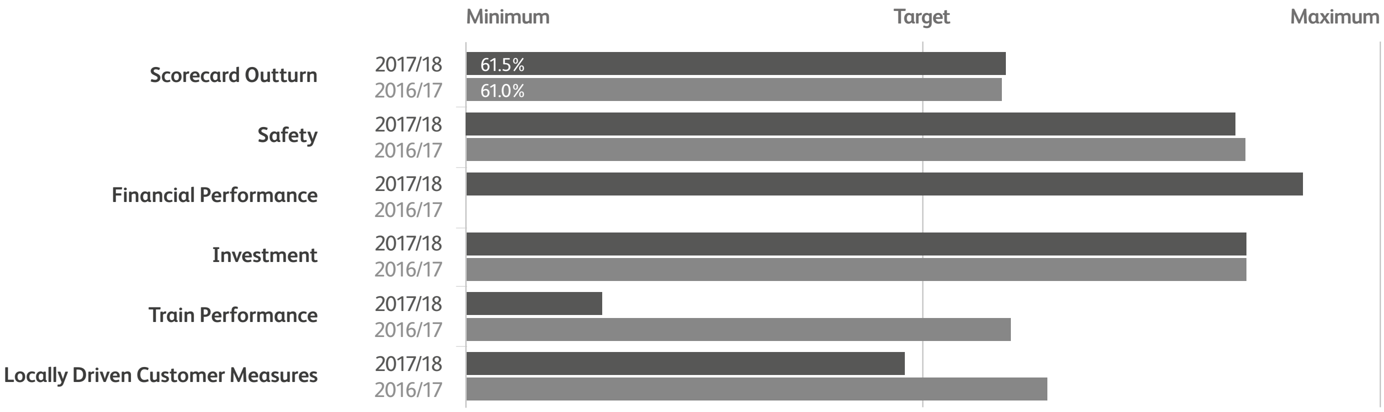
The rail freight sector produces **£1.7bn** economic benefits for Britain

The Caledonian Sleeper trains cover **3,500** miles every night between Scotland and London

CrossCountry covers around **1,500** route miles and calls at over **100** stations

Key scorecard targets

Our route scorecard for 2017/2018 includes 28 individual measures. Our full-year scorecard achievement is 61.5 %, which was above target.



Safety

We finished the year on target for all our scorecard safety measures except for Signals Passed at Danger (SPADs), which ended the year at 59 against a target of 44.

A key focus over the past 12 months has been working with colleagues across the industry to reduce the number of freight operator staff injured on Network Rail infrastructure. This is also a key work stream for the cross-industry National

Freight and National Passenger Operators continued

Freight Safety Group and delivery is supported through our programme of joint safety tours with our customers.

We continue to exceed targets on close calls raised with over 276 calls raised and closed within 90 days. Our teams' attendance at a weekly safety hour is above target and we have covered a wide variety of topics during the year.

Finance

Freight track access income performed well and was broadly in line with growth targets for the year, with container and construction traffic continuing to show encouraging growth, and an unexpected small increase in coal traffic late in the summer.

We finished the year in an adverse position against our business plan, for the overall financial performance measure (FPM), mainly as a result of high levels of compensation being paid under schedule 4 and 8, as well as reduced traffic levels, as a result of the adverse weather in February. This was despite returning a surplus up to and including period 11.

Train performance

For the majority of the year our results were on target. In line with other routes, 'The Beast from the East' in March had a significant impact on the delivery of our targets. This means that we finished the year at 93.5 % Freight Delivery Metric (FDM) moving annual average (MMA) against a 94 % scorecard target.

Cross Country performance was down from the last financial year at 87.7 % against a target of 90.1 % PPM (MMA). We have developed and put in place a joint performance strategy to achieve future targets.

We have worked very closely with Caledonian Sleeper to exceed the target of 75 % MMA at 75.1 %. FNPO supports Caledonian Sleeper through added scrutiny and monitoring of the Caledonian Sleeper service by Freight Service Delivery Managers.

Customer focused

We also have seven individual customer scorecards, measures which are jointly agreed with our customers.

Activities in the year

- We have worked with the industry to produce our CP6 Strategic Business Plan. This is the first time FNPO has submitted a stand-alone plan and we are proud to have produced it collaboratively with our numerous stakeholders.
- FNPO has grown to support the needs of our customers. During the past year we made some specific increases to our team including adding a number of route freight managers. We have also strengthened our links to the central functions such as System Operator.
- We have been working with the Freight Operating Companies and port and terminals such as the Port of Immingham, Drax power station and Port of Felixstowe to build on work to improve right time departures.
- We have taken on the role of client for the fitment of digital signalling technology (ECTS) onto freight trains.
- We have seen schemes at Chelmsford, Small Heath, Hope Street Manchester, Bristol East and Southall be delivered to provide support for construction sector supply chains.
- We continue to work with the industry to provide stable and sustainable track access charges for CP6.
- We held two charter conferences, developed a charter strategy and we are working with the charter sector on a plan to eliminate effluent released onto the track.
- We worked with Caledonian Sleeper and routes on the guage clearance works necessary for the introduction of new rolling stock.

In the year ahead

- Continuing our focus on freight service recovery following delays and incidents on the network.
- We will see key Strategic Freight Network schemes such as the Felixstowe Branch Line Capacity Enhancement and Southampton to the Midlands train lengthening being delivered to provide extra capacity for our customers.
- Our Business Development team will be continuing to develop new opportunities to bring in revenue streams to the railway and to help more users access the railway through new railheads and connections.
- We are working to define a measure that can be implemented to improve speed on selected services in-line with operator aspirations.
- Work with industry to support the High Level Output Specification (HLOS) metrics for freight in Scotland.
- We are developing a freight end-user scorecard to sit alongside our customer scorecards.
- Continue to work with DfT on the CrossCountry refranchise.

Efficiency case study:

The Port of Felixstowe is the UK's largest container port and it sees up to 66 train movements per day (in and out). The route freight teams in Anglia and the South East have been working closely with the port and freight operators to improve right time departures from the port. A significant amount of work has gone into creating joint working and establishing a weekly visualisation session at the port, attended by all parties.

Rail freight plays an essential role in distributing goods around the United Kingdom and because of the nature of the freight network, the benefits are wide ranging. Improved, efficient right time departures mean that the positive impact has been felt across multiple routes and operators. The FNPO team is looking to replicate this approach at other end-user terminals to drive continuous improvement across the network.

Paul McMahon,
Route managing director,
Freight and National
Passenger Operators
27 June 2018

Strategic report

The digital railway is already happening: digital deployment on Thameslink will allow 24 trains per hour to run in each direction at peak times through the core area between Blackfriars and St Pancras International.

Digital Railway

In 2017/2018 the Digital Railway Programme has continued to build upon the momentum achieved from the previous year, by working in close collaboration across the railway industry and with our partners in government.

Digital Railway (DR) has continued to receive strong support from Government including a reference in the Industrial Strategy White Paper and the Secretary of State for Transport agreeing to speak at the launch of the DR strategy in May 2018. We have also achieved the following:

- We have supported the Network Rail routes in preparing their Strategic Business Plans, incorporating digital railway technology into their future signalling workbanks.
- The DR Programme (DRP) strategy was produced with cross industry and government consultation, and was publicly endorsed by the Secretary of State for Transport in May 2018.
- A contract was awarded to Siemens in December 2017 to deploy on board European Train Control System (ETCS) as part of the first-in-class fitment of go-anywhere freight trains.
- Back-to-back commercial agreements were also put in place with the freight operating companies.
- Work has continued on the deployment of Traffic Management on the Wales and Anglia routes. The deployment of Traffic Management between London and Bristol is progressing towards go-live planned for 2018.
- The internal audit of the DRP carried out in November 2017 concluded with a good rating, noting a robust operating model in place to support delivery.
- The second Early Contractor Involvement (ECI) report was issued as part of the DRP's ongoing commitment to actively engage with the supply chain in order to support collaboration and innovation. The successor to ECI, the Joint Design Group (JDG), has since been established as a new way of working with the supply chain, building on the success of the ECI workstreams, creating a community of suppliers with a wide range of skills and capabilities to support DRP development activities.
- The DfT has issued an Invitation to Tender (ITT) for the forthcoming South Eastern franchise with support from the DRP working with the South East route to develop the Traffic Management scheme. Digital Railway options are also being investigated for the TransPennine route.
- March 2018 saw the demonstration of Automatic Train Operation (ATO) over European Train Control System (ETCS) Level 2 through the Thameslink Core via a Class 700 mainline service train from Peterborough to Horsham. The delivery of ATO over ETCS is one of the first deployments of the digital railway on the mainline rail network – a world first – and it is delivered as part of the £7 billion Thameslink Programme.

David Waboso,
Managing director,
Digital Railway
27 June 2018

Property

We are experts in developing railway-owned land and property assets to help fund the railway and reduce the burden on the taxpayer. We play a key role in contributing to railway investment, customer experience, regeneration, housing and economic growth, creating great places for rail passengers, businesses and communities.

Open for Business: Partnering with the private sector

Our role in providing long-term, strategic stewardship of Network Rail's land and property assets has never been more important as the British population continues to grow and the pressure on transport infrastructure, housing and commercial space increases.

We are now taking a more proactive and ambitious approach to working with stakeholders and delivering positive outcomes for communities by playing a full role in regeneration schemes, releasing land for housing, providing space for people to work and supporting economic growth.

We are open for business, and have begun to transform our operations to make it easier for sector stakeholders to work with us. In the last year, we have introduced a raft of measures to help encourage partnerships, including; new insurance/risk cover for developers and a new development asset protection agreement.

We also released the first in a series of multi-site land packages aimed at accelerating the delivery of land for housing while generating more income to reinvest back into the railway. In the past year we have delivered £44.2 million in development income and land for 707 homes. We have continued to accelerate our delivery with a commitment to deliver land for around 12,000 homes by 2020. The current rolling total is 3,557 since 2015.

Safe, secure, sustainable stations

We continue to create world-class environments in our stations through our commercial, retail and advertising assets. Between October and December 2017 our like-for-like sales increased by 0.8 % while our sales growth increased by 3.5 %.

Our stations division is striving to ensure our stations are places where people want to be, have the facilities they need are integrated with and deliver for local communities, create positive social outcomes and drive long term value. We have also taken on Guildford and Clapham Junction stations, which were previously managed by South Western Railway, to support the ongoing delivery of the Railway Upgrade Plan and support future development schemes.

Supporting devolution

Our planning and land services, and property services teams work alongside the routes to ensure the efficient operation and future expansion of the network. In the past year, we have shifted our approach to better support devolution and have implemented route-based land strategies to optimise the long-term use of Network Rail's estate. We are also supporting on major projects such as HS2, helping the routes protect the railway and its heritage, while maximising the use of available land.

We are also working on a national strategy to improve land acquisition processes for operational railway purposes and supporting the reduction in Delays Per Incident by improving access to the railway.

Key statistics

+4% – Increase in income from Network Rail Property

£304m – Commercial property income

95.3% – Occupancy rates at our business space estate – Last year 95.6 %

626,559 sqft – of lettable rental space in our managed stations – last year 610,393 sqft

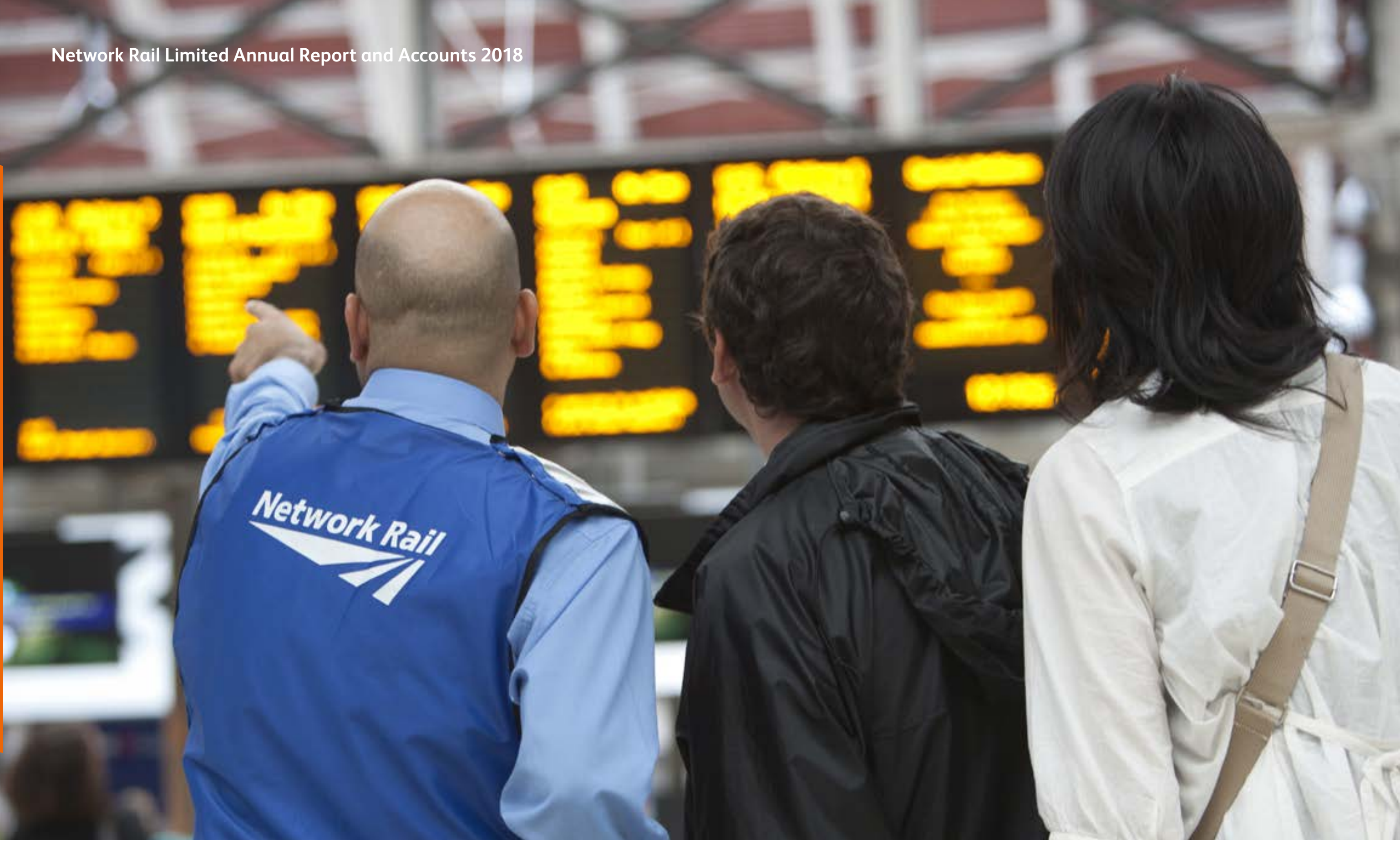
1.20% – Network Rail managed stations like-for-like retail sales growth

Key initiatives we have underway

Our Commercial Estate business is currently being sold, with the transaction launched to the market in November 2017, and we expect the sale to be complete in the 2nd half of the year. The Commercial Estate is a non-core railway asset and a successful business that operates commercially. All the proceeds from the sale will be retained by Network Rail and will help us to fund the Railway Upgrade Plan. Safeguards will be in place to ensure that there will be no impact on the safe and efficient running of the railway.

Other assets from our strategic disposals programme sold this year have delivered £36.5 million for railway reinvestment.

David Biggs,
Managing director,
Property
27 June 2018



Great people, great teams

The Strategic Business Plan published in February 2018 quite rightly shines a light on the importance of great people and great teams. This people vision underpins Network Rail and the transformation that is ongoing, to enable devolution to separate route businesses. From this our People Strategy is also developing and will set the agenda for Network Rail to be one of Britain's best employers.

Did you know - Apprentices?

- Network Rail enrolled 814 apprentices, including;
  - 145 female apprentice starts (18 %).
  - 80 BAME apprentices (10 %).
- We have beaten our ambitious forecast (of c. 600 starts over the year), and have plans to increase apprentice starts in 2018/19, expanding to a broader range of higher / degree level programmes.
- We offer a range of apprenticeships across apprenticeship levels 2 to 7, and types of programme (e.g. engineering, administration, finance, cyber security, project management, construction, surveying, property management, customer service).

Our apprenticeship programme has won the National Transport Awards' Apprenticeship Champion of the Year Award, recognising our commitment to investing in the future talent that we need to build a better railway for a better Britain.

Did you know - Graduates?

- 153 graduate starts at Network Rail.
- We have 11 different graduate schemes available.
- We are working closely with those on the schemes to further develop these graduates through placements, qualifications, skills training.

Aligned to this we are working hard to support the skills agenda and developing strategic workforce planning to further develop our people. We are engaging with university technical colleagues up and down the country and one of our senior managers is chairing the Government's Transport & Logistics route for technical education. Work is also ongoing to lead the development of a number of apprenticeships via 'trailblazer standards' and we can often be seen supporting events like The Big Bang Exhibition.

Our work with the Armed Forces has also been publicly recognised by the Ministry of Defence's prestigious badge of honour. The Gold Employer Recognition scheme award was presented to Network Rail for outstanding support to the Armed Forces community.

Did you know - Diversity & Inclusion?

This year we have set about developing the 20by20 project, to increase our number of female employees from the current 16 % to 20 % by 2020.

Each route business and functional area has a 20by20 lead and an action plan describing the necessary activities to achieve our ambition, some example activities are: hosting open days for women; introducing women's welfare packs; encouraging girls and young women to continue studying STEM subjects; promoting female role models in our job

Great people, great teams continued

This photo shows some young people getting involved with the Network Rail stand at The Big Bang exhibition

adverts and through social media; understanding why women leave or stay in Network Rail. These activities delivered across the routes and business functions and supported by our centres of expertise, will improve gender diversity and contribute to reducing the gender pay gap over time.

Mark Carne CBE also raised the profile of the 20by20 project by announcing a commitment to improve welfare facilities trackside and in depots by 2019, an initiative which benefits everyone.

Gender pay gap reporting

In December 2017, ahead of the UK government deadline, we published the details of our gender pay gap. Our 2017 pay gap is 11 %. This is substantially lower than the average UK pay gap of 18.1 % and we are proud of the progress we have made to date. But we are determined to reduce it further.

Other initiatives

We know that unconscious bias can be an issue in recruitment which is why we are trialling anonymous or 'name-blind' shortlisting to eliminate any chance of bias. We have rolled out 'inclusive leadership training' for all hiring managers which includes a focus on unconscious bias, in the hope of tackling gender and diversity bias.

We have also developed a menopause project, sponsored by Graham Hopkins MD ST&E, producing a guide for women and line managers to support them through this time that is rarely spoken about, but can cause an immense impact.

Our property function also developed a very supportive 'returners' programme to encourage surveyors back to the workplace after a period of absence, which has received a great take up.

This year we have also maintained the Business in the Community Diversity Benchmark, Silver Banding for Race and Gender Diversity Benchmarks, which has given us a fantastic stepping stone for the future into 2018/19.

We take proactive action to make sure the policies relating to our people are compliant and supportive. We also extend this to policies that have a people impact that are owned by other parts of the organisation, for example the ethics policy.

Our future vision is to create a more productive workforce and for Network Rail to be a more desirable place to work. Future initiatives such as digital signalling and intelligent infrastructure will continue to broaden the diversity of skills required to make a "better railway for a better Britain".

Our disability policy

Network Rail has a policy of not discriminating against potential and current employees due to their age, disability, employment status, gender, health, marital status, sexual preference, membership or non-membership of a trade union, nationality, race, religion, social class or other non-job-relevant personal characteristics.

Reasonable adjustments will, where possible, be made to support new employees with a disability and those returning to work after injury or from a period of illness.

Network Rail offers training and development opportunities to staff to ensure that we have the right people with the right skills to help us deliver for our customers, and also to help our people achieve their full potential.

Employee engagement

Each year Network Rail runs a series of business briefings, aimed at updating internal colleagues on what's happening across the business, and providing opportunities for staff to raise questions directly to senior management. Business briefings are held at 11 locations around the country to allow as many employees as possible to attend. Approximately 6,000 employees attend the briefings each year, and material from those briefings is made available on the company's intranet for those who cannot attend.

Our intranet is updated daily with news from around the business, as well as information on the major industry and political events that impact Network Rail, and weekly round-up emails are circulated to the whole business. Our monthly internal magazine, Network, is also available to read in hard copy or via our intranet.

In September 2017 Network Rail carried out its periodic employee engagement survey. Over 21,000 employees completed the survey, an increase of 5 percentage points on previous participation levels. Teams are now working to address this feedback from employees.

Being responsible

At Network Rail we promote sustainable development and responsible business through our Responsible Railway Plan and our vision of a "Railway Fit for the Future". We are keen to always understand how our activities affect the environment locally as well as globally and, at the same time, we drive social responsibility and actively seek to maximise opportunities to create social value, all whilst running a safe and reliable railway.

Environmental management

Biodiversity

As one of the largest landowners in the UK our impact on national biodiversity is significant. In 2017 we developed and published a rail industry biodiversity calculator to allow Network Rail and our supply chain to demonstrate commitments to "no net loss" to biodiversity and, in the case of the Thameslink project and the Gospel Oak to Barking electrification project, "net gain". Work is now taking place to improve other tools, such as geospatial mapping, to better plan for ecological risks and opportunities.

Waste

Network Rail is a major producer of waste and generates a wide range of waste types including; construction, demolition, commercial and hazardous wastes. In 2017/18, Network Rail generated 2.14 million tonnes of waste, of which 33 % was reused, 56 % recycled, 5 % recovered (for energy generation) and 6 % sent to landfill. The landfill diversion rate of 94 % falls just short of our target of 95 %, however with increased focus this year we are confident it will be exceeded by the close of CP5.

	2017/18	2016/17
Waste diverted from landfill	94%	92%
Re-used	710,818 tonnes	663,481 tonnes
Recycled	1,197,820 tonnes	1,128,469 tonnes
Recovered (e.g converting waste material into energy)	106,556 tonnes	211,442 tonnes
Disposed	120,852 tonnes	171,243 tonnes

Energy and carbon

For Network Rail, energy is a vital part of our core business and we spend over £60m each year on keeping the railway running. Reducing our energy use not only reduces operating costs, but also reduces our carbon footprint and improves our environmental impact.

We have a regulated target to reduce emissions of carbon dioxide (CO2) by 11.2 % over the course of CP5 from the CP4 exit baseline. In 2017/18 we reduced our emissions of CO2 by 6.3 % compared to the previous year, with total reductions against the CP4 exit baseline of 17.5 %.

We have seen many energy, cost and carbon reduction initiatives across the business. For example, we are working hard to recover energy costs and encourage energy reduction throughout our managed stations through an ongoing programme of in-depth survey work of all station retail areas, with benefits to date exceeding £2.5m. Business units are implementing energy efficiency projects to achieve targeted energy savings, and are shaping energy and carbon reduction plans for CP6.

Weather Resilience and Climate Change Adaptation

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 speed restrictions during high temperatures and high winds to investments in improving the condition of high risk assets. However, the nature of weather and the scale and age of the rail network mean that impacts are still experienced.

We have been working to implement the 2017 Weather Resilience and Climate Change Adaptation Strategy with a particular focus on integrating climate change requirements into asset policies, and have developed a cost:benefit analysis tool to support decision making and development of business cases for resilience projects.

Social performance

At Network Rail we are striving to improve our social performance, recognising that running Great Britain's railway is more than just transporting passengers from 'A' to 'B'. It is a vehicle for connecting communities, creating jobs, regenerating areas of social deprivation, and driving socio-economic growth.

Community engagement

Many of our projects have chosen to 'give back' to the communities they serve by building long-term partnerships with local schools, businesses and lineside neighbours. In 2017 a community art project changed the face of rail infrastructure in south east London by painting meaningful images that resonate with the local community across Network Rail bridges and rail infrastructure. Graffiti and vandalism has been replaced in London Bridge by a mural dedicated to those who lost their lives in the terror attacks, whilst a Forest Hill structure now boasts an image from a well-known exhibit displayed at the local Horniman Museum.

Volunteering

This year 10 % of Network Rail employees used at least one of their five days of volunteer leave to support local charities and community groups, which is a 73 % increase on last year. Volunteering activities across the business have included careers workshops in schools to promote Science, Technology, Engineering and Maths (STEM) subjects to young people,

Being responsible continued

Andy Thomas, route managing director for Network Rail in Wales with Charlotte Spear, PCSO for British Transport Police, supporting 'Brew Monday'. As part of the Small Talk Saves Lives campaign, members of rail staff across the country stood alongside Samaritans volunteers at stations on Monday 15 January 2018 to encourage people to connect over a cup of tea, by offering passengers free tea bags and listening tips, as well as promoting Samaritans' services.

	2017/18	2016/17	2015/16
Number of days spent volunteering with charities and community groups	6,748.5	3,895	1,645

garden and building renovations in Barnardo's assisted living and children's centres, and community support for those affected by the Grenfell Tower fire in May 2017.

Charitable giving
In March 2017 we launched a two-year charity partnership with Barnardo's and fundraised £123,000 by the end of the first year. In addition, we saw a 5 % increase in people using our Payroll Giving scheme to donate to their selected charities; this year Network Rail employees have donated an average of £45,000 to charity per month. In addition to Payroll Giving, train passengers have donated a further £1.1m through charity bucket collections at our stations.

Keeping communities safe
In 2017/18 we continued our community safety campaigns to reduce trespass on the railway across Great Britain. Over 25 % of trespass incidents are reported to involve children and young people, which is why we work closely with schools to provide a range of education and prevention activities.

As part of the Great West Electrification Project alone, we have delivered rail safety activities to 118,305 pupils at 301 school events. For this area of the railway line, between Maidenhead and Bristol Parkway (approx 90 miles), we have seen just 17 trespass incidents in 2017/18 compared to 319 incidents across the remainder of the route.

Suicide prevention
246 suicides took place across the rail network in 2017/18, 4 % more than the previous year despite the industry continuing to dedicate significant resource to this issue in support of the government's commitment to reduce the national suicide rate by 10 % by 2020.

The industry continued to work closely with local authorities and health agencies to promote early intervention for those in emotional crisis whilst at the same time deploying physical and psychological suicide prevention measures at known high risk locations across the network.

A cornerstone of the industry's work this year is the training of staff to intervene in suicide attempts. In 2017/18 1,711 interventions were made – 7.5 % more than 2016/17 – and our Small Talk Saves Lives bystander campaign (launched in November 2017) has enabled our customers to help prevent suicides both on and off the railway.

Level crossings
Level crossings continue to be one of the biggest safety risks on the rail network. In conjunction with our rolling programme to close or alter level crossings to reduce safety risk we have continued our awareness campaigns on how to use a crossing safely. This year we have closed 55 level crossings which takes the total number of closures within CP5 to 320.

Economic impact
Did you know?
- This year we worked directly with over 3,860 suppliers, 66 % of whom were SMEs, spending over £6.51bn.
- We are a major user of UK steel. All of the steel used for rail replacement or upgrade is manufactured in the UK under an agreement with British Steel.

Our approach to risk management

Our approach to risk management across Network Rail balances the risks associated with our operational environment and 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.

The operational railway is continuously susceptible to changing environmental conditions. The success of the railways in the UK, measured by the growth in passenger numbers, and the continued drive for efficiency means that we must be both flexible and innovative in our risk mitigation strategies. Our enterprise approach to risk management provides multiple opportunities to review, monitor and enhance mitigations depending on the changing conditions and challenges.

Our principal risks are outlined in the 'Key strategic risks' section on page 40-45.

Embedded risk management processes

We take an enterprise-wide approach to risk management and have an Enterprise Risk Management (ERM) framework in place for the identification, analysis, management and reporting of all risks to strategic objectives. The purpose of our ERM framework is to identify and mitigate risks to the delivery of a safe, reliable, efficient service to our customers. Our ERM framework supports all areas of the business to recognise both threats and opportunities 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.

The risk processes within our ERM framework provide tailored approaches for specialist areas such as safety, project management and information security. The use of a standard risk assessment matrix and defined risk appetite enables integration of operational and strategic risks. Line of sight and links between risks are documented and visualised through our award winning risk visualisation approach. Strategic risks are linked to our corporate scorecard and business plans are required to document and assess risks to delivery against the corporate risk appetite statements.

Clear escalation criteria and the use of business assurance committees throughout the business provide structured governance, challenge and assurance. We have introduced the concept of risk trajectory to enable more informed challenge on the effectiveness of risk mitigations. The establishment of early warning indicators (EWIs) provides the ability to continuously monitor how effective our controls are at managing the root causes of our principal risks. By using current reporting and monitoring techniques, such as visualisation boards and periodic reviews, we can better link risk with performance.

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 and independent auditors 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.

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 risk is appointed an executive committee owner.

Network Rail has defined its risk appetite as follows:

Network Rail has no appetite for safety, health or environmental risk exposure that could result in injury or loss of life to public, passengers and workforce or irreversible environmental damage. Safety drives all major decisions in the organisation. Network Rail will consider options to reduce safety risk where the business case goes substantially beyond our legal obligation to reduce risk so far as is reasonably practicable.

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 % CI for income and 60 % CI for cost reductions where potential returns are high).

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 only tolerate low to moderate exposure that may result in short term negative impact on reputation and stakeholder relationships and is easily recoverable, i.e. minimal negative local or industry media coverage, and/or minor employee experience and political impact. This will continue to be balanced by regular positive media coverage at national and local level.

Risk management continued

Risk area: Safety

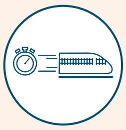
Britain's railways are amongst the safest in Europe, however we are not complacent. Network Rail continues to assess and monitor all areas of safety and continues to invest in preventive measures to keep the likelihood of safety incidents to a minimum.

Risk	Risk Owner	Current Actions	Planned
Failure to safeguard our workforce resulting in single and/or multiple fatalities to Network Rail staff (employees and contractors). Safe	Group director of Safety, Technical and Engineering	• We fitted a vehicle speed warning system to 7,700 fleet vehicles to enable our drivers to get immediate support to drive within the speed limit. This has reduced speeding events. • We implemented the revised standard Safety of People at Work on or Near the Line as a critical element for the successful delivery of Planning and Delivering Safe Work. • We have reviewed and revised the Industry Common Induction. A programme for electrical safety delivery was agreed by executive committee and SHE committee, focusing on improved isolation methods, better test equipment, accountabilities and competence / training. • We established a fatigue risk management programme aligned to a proposed new standard and delivered educational videos for our staff. • Implemented Safe Trackside Working programme - including development of strategic signal controlled warning system and preparation for trials of tactical high integrity protection system.	• To introduce proactive risk management through use of the leading indicators provided by the Vehicle Speed Warning System. Investigate vehicle utilisation to ensure that the most appropriate vehicles are used. • Develop integrated safe system of work planning tool for use by Network Rail and its contractors. Including development of a mapping solution to deliver improved planning and hazard identification. • Introduce a single source of task based risk information system to allow all staff to easily access relevant hazard and risk information. • Additional ESD: Complete revision of 25kV isolation instructions and associated training material to enable commencement of trial. • Produce a fatigue risk tool kit and guidance for line managers. • Introduce revised Sentinel Scheme rules and revisions to core track safety competences. • Safer Trackside Working programme – feasibility studies for Signal controlled warning technology and trials for Lineside Early Warning System.
Failure to prevent a major avoidable train accident (collision, derailment etc.) which results in multiple injury/ fatality to members of the public/ passengers resulting in loss of reputation, finance and reduced performance. Safe	Managing director, England and Wales	• Corporate Scorecard measure for risk reduction adjusted to allow for effectively targeted measurement of priority activities. • Targeted communications campaigns for the users of Automatic Half Barrier and User Worked level crossings. • Targeted action at level crossings through the Level Crossing Risk Reduction programme. • Increased coverage using train-borne track monitoring. • Plain Line Pattern Recognition operational for 14,496 miles. • Targeted removal of lineside vegetation that presents a risk to train derailment/collision. • Targeted reduction in the number of high risk road vehicle incursion sites. • Targeted reduction in the number of high risk scour sites.	• Research and development of the COMPASS alternative signalling system to facilitate systems-based degraded mode working with the aim of reducing the reliance on human processes and enhancing the resilience of degraded operations against human error. • Continued focused measurement through the train accident risk element of the corporate scorecard. • Further public education campaigns and targeted action at level crossings through the Level Crossing Risk Reduction programme. • Additional targeted reduction in the number of very poor condition fences that could present a risk to train derailment/collision. • Extended use of trainborne equipment for track condition monitoring.

Risk management continued

		• Targeted reduction in the number of very poor condition fences that could present a risk to train derailment/collision. • Revision of the signalling design handbook. • Continued roll-out of new control framework in the form of Business Critical Rules. • Development of Engineering Competence Framework. • Development and roll out of Civils Strategic Asset Management System to provide better asset information.	• Continued targeted removal of lineside vegetation that presents a risk of train derailment/collision. • Further targeted reduction in the number of high risk road vehicle incursion sites. • Continued targeted reduction in the number of high risk scour sites. • Publication and implementation of the revised signalling design handbook. • Delivery and implementation of new training and competence support materials for staff undertaking and monitoring safety critical communications. • Completion and implementation of a Network Rail Single Competency Framework for professional Engineers and Asset Managers. • Further system evolution and deployment of the Civils Strategic Asset Management System to provide better asset information. • Completion of Business Critical Rules improvement projects.
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. Safe	Group director of Safety, Technical and Engineering	• 55 Level Crossings permanently closed in Year 4; 320 permanently closed in CP5 to date. • 27 (31 planned for the end of the year) commissioned asset improvements at level crossings in Year 4; 65 asset improvements to date in CP5. • 12 crossings temporarily closed, removing risk, whilst permanent risk reduction measures are developed in Year 4; 48 temporarily closed in CP5 to date. • Recast of the previous Level Crossing Strategy to Enhancing Level Crossing Safety. • TWAO Cambridgeshire, Essex and Suffolk public inquiries are underway. • Refresh of the All Level Crossing Risk Model to improve the accuracy of risk modelling and calculations of level crossing risk. • Supported RSSB to educate other Station Infrastructure Managers about how to use the PTI risk assessment tool across the railway stations estate. • Revision of the Community Safety Strategy, including development of metrics to help measure the reach and impact of our Community Safety Campaigns. • Targeted local campaign for addressing the issue of trespass at stations.	• Closure of an additional 126 Level Crossings (subject to feasibility studies and liabilities negotiations). • Development of the Meerkat solution for user worked crossings. • Deployment of Red Light Safety Equipment Cameras at up to 18 sites. • Embedding of Enhancing Level Crossing Safety within the business. • Procurement and installation of up to 30 COVTEC SAWDs. • Completion of GRIP Stages 1-4 of the Anglia TWAO to include completion of public inquiries in Cambridge, Suffolk and Essex. • Continued development of an AHB+ solution. • Procurement and installation of overlay MSLs at up to 28 sites. • Review and further development of the current Narrative Risk Assessment Process. • Establish the cross industry trespass prevention programme. • Delivery of targeted public communications campaigns. • Development of a user interface for the new All Level Crossing Risk Model (ALCRM) risk engine, together with full impact assessment of changes to the national risk profile, in preparation for CP6 activation. • Further delivery of community safety campaigns and interventions directed towards.

Risk management continued

		• Delivery of the Small talk Saves lives campaign for suicide prevention. • Roll out and deployment of the Platform Train Interface (PTI) risk assessment tool at Network Rail Managed stations. • Delivery of the next cycle of the railway safety educational programme in schools located near sites with high levels of trespass and vandalism during academic year 2017/18.	• Public education and engagement. • Trespass prevention. • Suicide prevention. • Level crossings risk reduction.
Risk Area: Value			
Network Rail is committed to delivering value for money through robust planning and supplementing funding through selling non-core assets. Network Rail is undertaking an ambitious programme of transformation to enable the business to be well placed for CP6. This brings opportunity but change is disruptive and any destabilising effect must be well managed.			
Failure to: – live within our funding envelope. – to achieve net receipts from asset sales to support shortfall funding and – to deliver efficiency savings programme.  Efficient	Chief financial officer	• Quarterly financial model review. • Improved modelling relating to material and irregular cashflows with the relevant business areas. • Regular open and transparent engagement with DfT and HMT with regard to our financial plans. • Engagement with DfT / HMT to ensure strategic direction and approvals are streamlined; e.g. sale process. • Value for money is understood within the asset divestment portfolio and approach agreed at BICC. • Agreement reached with HMG on the property asset portfolio eligible for sale. • Ongoing engagement with Government to ensure all options are explored regarding asset disposals.	• Rolling out more sophisticated cash flow forecasting tools and encouraging devolved businesses to take accountability for cash forecasting. • Collateral facility specifics are agreed with DfT with an aim to implement in April 2018. • Completion of the asset sales programme to meet the targets agreed with DfT and HMT. • Ensure retained property business is fit for purpose. • Ongoing development, embedding and improvement of the continuous business planning process. • Development of early warning indicators for the start of CP6. • Development of reporting framework for CP6.
Network Rail not embedding and sustaining the right change initiatives at the right time, in the right way, to deliver the right benefits aligned to key business strategies and external reports.  Great People Great Teams	Group Human Resources director	• Establish the Transformation Directorate, with a defined remit and accountabilities. • Transformation Working Group established to provide direction to and oversee the development and delivery of transformation activity, with a clear terms of reference and governance structure through to the executive committee and Board. • Key transformation programmes established supported by underpinning enabling projects to ensure successful delivery.	• Develop and Communicate the Transformation vision, aligned to Network Rail's strategic objectives. • Establish and communicate a clearly defined, prioritised portfolio of change activities with accountable owners agreed.

Risk management continued

Risk Area: Performance

Delivery of our extensive enhancement and renewals portfolios is a key priority for us. New controls and governance arrangements have proved successful over the last 12 months and seen us deliver our largest ever portfolio of works with no major possession overruns.

By investing in our staff and attracting young talent to the rail industry we are managing risks to recruitment and retention and have low staff turnover. We understand change is unsettling and will continue to work closely with staff and unions to minimise adverse impacts.

We are investing in our recovery and business continuity planning to reduce long-term impact of business interruption. This includes further controls in areas of information governance and cyber security.

Managing train service reliability to meet performance targets remains extremely challenging, with a higher than desirable likelihood of the risk materialising. Mitigations in this area remain a priority over the next 12 months and significant improvement in train performance is expected to provide the platform for CP6 delivery. We remain confident that over the longer term we will reduce risks in this area to within acceptable levels.

Failure to deliver the enhancement portfolio to time and cost. Growing	Managing director, Infrastructure Projects	• Quarterly business assurance committees (BACs) held in each Region and Programme, and as part of the MD's IP Executive Leadership Team meeting; Risk and assurance metrics reviewed monthly. • Risks aligned to and reviewed against strategic objectives and risk trajectories in the IP Executive BAC, following the update of the management system in 2017 through the One Vision One Way change programme. • Regular meetings between NR, DfT and ORR to review the tri-partite integrated assurance process. Peer Review process fully embedded and aligned to the Enhancements Delivery Plan. • Implementation of a robust tender review process to assure major infrastructure programme bids and ensure Network Rail is capable of delivering the expectations set out in the business case, along with the anticipated outcomes. • Ongoing integrated planning processes to assign critical resources at times of peak demand, e.g. bank holidays, with continuing focus on delivery governance (e.g. GRIP, DWWP) and assurance; resulting in 99.5 % safe, on time hand back at bank holiday possessions. • Development of a portfolio approach to risk and contingency management reflecting industry best practice. • Ongoing improvements in the planning process (GRIP 4 Track) throughout the project life cycle with the continuation of GRIP4Track (G4T) across all elements of the programme. • Weekly G4T escalation reviews. • Understanding various access regimes and impact on cost.	• Embed risk and assurance metrics into monthly business reviews, reinforcing the quarterly BACs. • Application of risk visualisation techniques and monitoring of risk trajectories to manage risk at the IP Executive BAC. • Implementation of the portfolio approach to risk and contingency management reflecting industry best practice and building on in-house capabilities to model project, programme and portfolio risk. • Further development of risk management techniques for major programmes with complex timetable changes. • Contribute to the DfTs update to guidance on risk uplifts to support business case submissions and investment decisions.

Risk management continued

		• Embed improved governance across the programme including Programme Board, Assurance panel and Route Track Governance panels.	
Failure to deliver the renewals portfolio to time and cost. **Efficient**	Managing director, Infrastructure Projects	• Renewals deliverability reviews of the Strategic Business Plan for CP6 on a route and national basis.	• Completion of actions associated with Network Rail's 'Must Wins' as they relate to renewals for CP5. • Continued focus on renewals related delivery risks as part of the ongoing management of risk led by the IP Executive Team. • Management of risks associated with the smoothing of the renewals workbank and transition from CP5 to CP6, to provide assurance to the industry supply chain. • CP6 contracting strategy for IP Track renewals. • Contribute to the DfT's update to guidance on risk uplifts to support business case submissions and investment decisions.
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. **Great People GreatTeams**	Group Human Resources director	• Implement and communicate NR's strategy to be an employer of choice to emerging talent. • Heads of Professions appointed to establish and implement career pathways within each profession. • Ongoing support and engagement with talent groups. • Developed and agreed group talent strategy and roadmap. • Revised the list of critical roles that will make the greatest contribution to execution of the strategic plan. • Introduced a model to understand and measure the potential of our talent. • Developed the training material on the potential model for managers and HR. • Process designed for critical role succession planning. • Establish, procure and piloting a Strategic Workforce Planning (SWP) tool to give focus to our talent strategy and initiatives.	• Socialise the strategy to communicate and position NR as an employer of choice to emerging talent. • Continue delivery of professions programme identifying and implementing career pathways within each professions. • Develop and deliver early talent engagement strategy. • Review and deliver leadership programmes. • Continue development of networks and alumni for roles in NR professions. • Roll-out the potential model to HR and defined managers. • Complete succession plan for ExCom roles / critical roles. • Continue to rollout SWP.
Failing to secure employee and Trade Union support for our forward change agenda. **Great People GreatTeams**	Group Human Resources director	• Regular and positive engagement with Trade Unions providing opportunity for bargaining groups to meet early. • Engagement with Trade Unions to review and update the collective bargaining framework. • Roll-out industrial relations learning programme to HR Business Partner community. • Support the routes to develop and build robust operational contingency plans, including appropriate HR mechanisms.	• Continue positive engagement with Trade Unions providing visibility of major change programmes. • Implement and roll-out updated collective bargaining framework. • Engage HR Business Partners to deliver industrial relations learning to upskill their key frontline manager. • Business test operational contingency plans.

Risk management continued

Failure to recover from a business interruption to pre-defined output levels and within agreed recovery timescales. **Reliable**	Chief financial officer	• Central Business Continuity (BC) team resourced and in place to support the delivery of the Business Continuity Management (BCM) framework and provide expertise and advice. • BCM framework designed and tested through route and group pilots. • Critical systems and assets identified across the business. • Business Continuity plans developed for critical assets. • Resilience risks identified, documented and reviewed at business assurance committees. • Incident management process reviewed and improved. National Emergency Plan reviewed and updated.	• Testing schedule agreed for critical assets. • Desktop testing of all asset recovery strategies. • Full scale scenario based testing of emergency response plans. • Further Strategic and tactical investment to provide more resilient network and systems based on the highest priority critical assets.
Unable to achieve TOC / FOC performance targets as agreed with stakeholders, to meet NR's CP6 business plan trajectory including CP5 exit position. **Reliable**	Managing director, England and Wales	• Delivery of Delay per Incident Programme, including the introduction of Chief Operating Officers and Senior Incident Officers to strengthen service recovery. • National Task Force (NTF) agreement for TOCs and FOCs driving increased focus on right time starts as a key performance lever. • Agreed joint BTP Industry reviews of all fatalities and attempts to aid prevention. • Initial Industry advice and High Level Output Statement (HLOS) setting out the Industry's performance agenda to CP6. • Review of seasonal management process to better align TOC preparedness with the routes. • Development of CP6 metrics to better reflect local passenger and freight priorities.	• Route Strategic Plans (RSP) will now drive an update to the joint performance strategies agreed with operators. • Introduction of route supervisory boards. • System Operator is implementing timetable resilience and performance modelling team to improve detailed challenge to rolling stock specifications. • Delivery of the Route Transformation Programme. • Roll out of technology to improve our predict and prevent capability such as Remote Condition Monitoring, Intelligent Infrastructure and Whole System Modelling. • Alignment of performance objectives across the industry. • Focus on response and recovery times when incidents occur. • Building on the work of our suicide prevention programme to include trespass. • Better understanding of sub-threshold delay through GPS data and new industry wide analysis database. • Further trials of traffic management to improve recovery of service.

Viability statement

The Directors have assessed the viability of Network Rail to maintain the UK's rail infrastructure over a three year period, taking account of Network Rail's current position and the potential impact of defined scenarios on its principal risks and financial viability.

The Board considered three years to be an appropriate timeframe. There is certainty over the final year of CP5 and increasing certainty over the first two years of CP6. Network Rail's proposals for CP6 are substantially similar to the Draft Determination published on 12 June 2018. However as the Final Determination for CP6 has not yet been finalised the Board did not feel able to confirm NR's viability beyond three years at this stage. Based upon this assessment, the Directors have a reasonable expectation that the company will be able to continue in operation and meet its liabilities as they fall due over the period to March 2021. This longer-term assessment process supports the Board's statements on both viability, as set out below, and going concern, made on page 87.

Network Rail is funded in five-year blocks called control periods. This five year block runs from 2014-2019 and the next runs from 2019-2024. The Office of Rail and Road (ORR) determines charges and outputs before the start of each five-year period. In doing so the ORR has statutory obligations with regard to producing a settlement that is equitable to the licence holder, Network Rail. 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 (DfT), which it intends to draw upon to specifically support its investment activities in the period to March 2019. This facility remains within its parameters. Network Rail is also investigating various methods of attracting third party capital to finance enhancements to the railway network including the disposal of non-core assets, planned for 2018/19.

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 29 to 45, is taken into account.

In addition, as Network Rail is a central government body and a member of the DfT group for consolidation purposes, its creditors can rely on Her Majesty's Government security, and the statutory obligations on the Secretary of State for Transport, with regard to settling liabilities.

We have set out the details of the principal risks facing Network Rail on pages 40 to 45 described in terms of our ability to meet our strategic objectives. We identify our risks through a robust assessment that includes a continuous cycle of bottom up reporting and review. In making this statement the directors have considered these principal risks and Network Rail's ability to withstand severe but plausible scenarios based on them. This included consideration of the political environment, industrial relations and the safety of the rail network. The process considered those combinations of risks which were most likely to lead to severe but plausible scenarios. The scenarios were considered in terms of the impact on the financial resources of Network Rail and the impact on delivery of future improvement work.

The assessment took into account Network Rail's current financial position and any headroom in its current forecasts. It also considered other sources of funding or actions such as deferral of improvement work .

A number of mitigating actions were identified including insurance arrangements, re-planning exercises and management of industrial relations.

The time period of three years was selected even though it runs into the next control period, as the impact of some scenarios will be felt beyond the current control period.

Viability statement continued

This year we have assessed four severe but plausible scenarios covering fourteen of the principal risks:

Scenario 1

A train accident occurs as a result of an attributable error to Network Rail which leads to injuries and fatalities to members of the public, reputational damage and ORR intervention.

Risks:
- Train Accident (L0)
- Business Continuity Management (L0)

Scenario 2

Network Rail fails to exit CP5 within the financial and delivery boundaries set, leading to fines, increased regulatory scrutiny, and reputational damage.

Risks:
- London Infrastructure Changes 2018/19 (L0)
- Project/Programme delays and/or increased costs (L0)
- Effective Governance of the Enhancements portfolio (L1)
- Great Western Route Modernisation Delievery (L1)

Scenario 3

Network Rail fails to achieve a suitable settlement for CP6 and is unable to deliver the planned improvements and/or funding is inconsistent with expected outputs.

Risks:
- CP6 NR Plan (L0)
- Ready to Deploy (L0)
- System Operator Fit for the Future (L1)
- Future Funding & Outputs Framework (L1)

Scenario 4

A significant loss of personal or operational information due to a security breach caused by an internal or external threat actor resulting in operational loss, a civil lawsuit and/or EU fines related to GDPR legislation.

Risks:
- Cyber Security (L0)
- Information Governance (L0)
- Data Protection Compliance (L1)
- IT Disaster Recovery (L1)

This builds on the three severe but plausible scenarios, covering seven risks that were reviewed in the previous year.

Scenario 1

Non-delivery of planned efficiencies, scheduled cost slippage does not occur and failure to achieve the expected income from asset sales within the anticipated timelines leads to the deferral of projects, a shortfall of cash to deliver the CP5 business plan and a request for more money with corresponding reputational damage.

Risks:
- Programme and Schedule Cost Slippage and NR Asset Divestment

Scenario 2

A large amount of organisational change either nationally or in a given organisational area, further restrictions on senior pay and reward options from HMG, and/or specific disputes arising from pay negotiations or other business consultations adversely impacts employee relationships and engagement. A national rail strike leads to significant UK economic consequences, loss of talent and disengaged staff results in reduced operational performance and difficulty in maintaining and improving safety. Business continuity issues are also created.

Risks:
- Destabilising Effect of Change, Industrial Relations Management, Talent Management and Business Continuity Management Risk

Scenario 3

A train accident occurs as a result of an attributable error to Network Rail which leads to injuries and fatalities to members of the public, reputational damage and ORR intervention.

Risks:
- Train Accident, Business Continuity Management and Destabilising Effect of Change Risk

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 2021.

Directors' approval statement
The strategic report has been signed on behalf of the board of the company.

Sir Peter Hendy CBE, chair
27 June 2018

Corporate governance report

Our board of directors

Sir Peter Hendy CBE
Chair

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 also president of the International Association of Public Transport (UITP) from 2013 to 2015.

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 a 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 London's Transport Museum; Vice President of the London Bus Museum and Chair of London Legacy Development Corporation.

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

Mark Carne CBE
Chief executive

Appointed to the Board: 2014

Skills and experience
Mark was appointed in 2014 and has been instrumental in driving change in the organisation, turning it into a devolved group of cost-competitive and customer-focused businesses. (Network Rail is now delivering almost a quarter of all infrastructure investment in the UK. This is the biggest investment programme in generations – £130m every single week – and it does this in a few hours at night so that the railway can keep serving 4.7m passengers, safely, every day.)

Mark has been a driving force behind the Digital Railway revolution which will see more trains running faster, more reliably and at lower cost on our existing infrastructure. Mark previously worked for Royal Dutch Shell plc and BG Group plc.

Mark is a fellow of the Institution of Mechanical Engineers and the Institution of Civil Engineers.

In February 2018, Mark Carne CBE indicated his intention to retire during 2018. In May 2018, it was announced that Andrew Haines OBE would be appointed as chief executive upon Mark's retirement.

Current external appointments
Independent governor of Falmouth University.

Jeremy Westlake
Chief financial officer

Appointed to the Board: 2016

Skills and experience
Jeremy was formerly senior vice president for finance at Alstom Transport in France, responsible for investor management, financial performance and control, and project finance. 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 University of Cambridge.

Board of Directors continued

Rob Brighouse
Non-executive director

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 as well as 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 an MBA from Aston Business School.

Current external appointments
Chairman of the shadow East West Rail Company; chairman of the Advisory Board at Aston Business School; honorary trustee of LIFE Trust; and chairman of Snap Travel Technology Ltd.

Committee membership
Safety, health and environment committee; audit & risk committee.

Richard Brown CBE
Special director and non-executive director

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, which at the time was the largest UK passenger franchise operator. Richard has 40 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
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.

Sharon Flood
Non-executive director

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 an MBA 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; board member of Pets at Home.

Committee membership
Chair of audit & risk committee; chair of treasury committee.

Board of Directors continued

Chris Gibb
Non-executive director

Appointed to the Board: 2013

Skills and experience
Chris has worked in the rail industry for 37 years. After a career of operational roles in England, Scotland and Wales he became managing director, Wales & 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.

Current external appointments
Chairman of Thameslink 2018 Industry Readiness Board; member of HS2 Independent Assurance Panel; member of Transport Strategic Advisory Board, Welsh Government; visiting lecturer at University of Birmingham.

Committee membership
Chair of safety, health and environment committee; chair of Network Rail Property Board.

Silla Maizey
Non-executive director

Appointed to the Board: 2016

Skills and experience
Silla has extensive experience in the aviation sector, built up over 34 years. Silla was most recently British Airways' (BA) Managing Director of Gatwick, and she was part of BA's executive leadership team. Previously, Silla was BA's Customer Director.

Silla brings a range of experience and insights to the Board, from operations to procurement, the shaping of the customer proposition and business reorganisations.

Silla is a fellow of the Chartered Association of Certified Accountants and a fellow of the Chartered Institute of Purchasing and Supply.

Current external appointments
Chair of NHS Business Services Authority; Non-executive director of John Menzies plc; Crown Commercial Services and Saffron Solutions Limited.

Committee membership
Audit & risk committee; treasury committee.

Michael O'Higgins
Non-executive director

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 Centrepoint, the youth homelessness charity. Michael was previously 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, of Channel Islands Competition and Regulatory Authorities, and of Calculus VCT plc; member of advisory board of Liaison Financial Services Limited and of JustAccounts Limited.

Committee membership
Nomination committee; chair of remuneration committee.

Board of Directors continued

Mike Putnam
Non-executive director

Appointed to the Board: 2018

Skills and experience
Mike has worked in multiple businesses across development, construction and services sectors and he has over 25 years' experience at senior management level.

Mike was President and CEO of Skanska UK plc from October 2009 until May 2017. He was previously executive vice president and board director of Skanska UK plc from June 2001 to September 2009 and he was responsible for leading the infrastructure and then building and construction businesses.

Throughout Mike's career, he has been closely involved with the successful delivery of many high-profile projects and programmes. Over the last ten years, Mike has been active as a non-executive director of several independent, decentralised international business units including: Sweden (Deputy Chairman); Poland; USA & Norway and recently Skanska UK.

Mike is a Chartered Engineer and a fellow of both the Institution of Civil Engineers and the Royal Institution of Chartered Surveyors.

Current external appointments
Non-executive director of Southern Water Services; member of the Supervisory Board of Arcadis NV, member of the Construction Leadership Council; and member of Association of Consulting Engineers Advisory Board.

Committee membership
Safety, health and environment committee.

Bridget Rosewell OBE
Non-executive director and senior independent director

Appointed to the Board: 2011

Skills and experience
Bridget is an economist by background. She is Chair of Atom Bank, Chair of the DVSA and a commissioner for the National Infrastructure Commission. She is 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. 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
Non-executive chair of Atom Bank; member of the With Profits Committee for the Royal London Group; Chair of the Driver and Vehicle Standards Agency; a commissioner on the National Infrastructure Commission; a member of the DfT's audit & risk committee; Senior adviser of Volterra.

Committee membership
Chair of nomination committee; audit & risk committee; treasury committee.

Stuart Kelly
Group general counsel and company secretary

Skills and experience
Stuart is responsible for the Legal and Corporate Services function. Stuart has extensive in-house legal and corporate governance experience gained within the listed environment, having joined the company from Severn Trent plc where he held the position of deputy general counsel.

Stuart started his in-house legal career with Network Rail, prior to which he was a solicitor in private practice. Stuart is also a qualified civil engineer having begun his career working for VolkerFitzpatrick.

Corporate governance report

At Network Rail we believe that good corporate governance is essential to the continued success of the business and for improving both train and financial performance. Our internal governance processes are continually reviewed and, where deemed necessary, strengthened. During 2017/18 we have further enhanced our governance structure.

Governance is evolving with the changing structure of the business

Route devolution continued to evolve during 2017/18 and is embedding well. We now have nine fully devolved route business that operate independently within a national policy and control framework. The nine routes are accountable for, and have delegated authority to manage their operating, maintenance, renewals and business activities, having regard to the requirements of their train and freight operating customers and passenger profiles.

The industry supervisory boards comprising Network Rail, train and freight operating companies, Transport Focus and other key stakeholders are bringing track and train closer together as they continue to evolve. The rail industry acknowledges these boards' role in aligning rail industry action plans, improving joint planning and communications, ensuring delivery of railway improvements across the routes for the benefit of passengers and driving improvements to passengers' experience.

During 2017/18, the Route Supervisory Board for the Western route continued to evolve and similar boards were established for the East Coast Main Line, Wales and Borders, West Coast Main Line and Chilterns. Each of these boards is independently chaired.

During 2018/19 other route supervisory boards will be established.

Strategic Business Plan for Control Period 6 (2019-2024)

In October 2017, the Secretary of State issued the Statement of Funds Available (SoFA), outlining the level of funding available for CP6.

Throughout 2017/18 and leading up to and in response to the SoFA, Network Rail developed its Strategic Business Plan for CP6 (SBP). The SBP provides a detailed explanation of how Network Rail will spend efficiently the funds that the Government has committed and sets out what Network Rail thinks can be achieved (outputs and outcomes) and how that might be done using the funds available.

The SBP was built from the bottom up, and is based on the strategic plans created by each route and the other business functions. In building their plans, the routes engaged with their customers to understand their priorities and to develop plans that, wherever possible, meet customers' expectations.

Each stage of the plan was reviewed by the Board, supported by its business plan committee. That committee is attended by the Network Rail chair, a number of non-executive directors, the chief executive and chief financial officer.

The executive committee also reviewed each route's plan and the overall SBP after each of the individual submissions. A number of route and central assurance reviews were also undertaken throughout the process.

These reviews balanced providing strategic direction on the SBP from the centre, and ensuring that the routes owned their plans and felt able to deliver them. They also gave the Board assurance on the progress, challenge and rigour involved in developing the SBP and route plans.

The Office of Rail and Road (ORR) commissioned an independent review of Network Rail's planning process, including scrutiny and challenge of the plans and the assumptions underlying them. That review, by Nichols, concluded that the strategic level planning was good, supported by a well-managed process that was overseen and run by the Network Rail's Business Review team.

The SBP was submitted to the ORR on 9 February 2018. Having assessed Network Rail's SBP the ORR is published its Draft Determination on 12 June 2018, following which there will be a period of consultation.

It is anticipated that the ORR will publish its Final Determination in October 2018. That will set out the outputs that Network Rail, each of the routes and the System Operator will need to deliver between 2019 and 2024, along with the money that the ORR thinks will be needed to deliver this work.

Each route and the System Operator will also have balanced scorecards with performance targets created in consultation with train and freight operators. This will ensure that responsibilities to customers, and ultimately passengers, are appropriately managed.

With the introduction of separate regulatory settlements for each route and the System Operator, Network Rail is changing its existing business performance management and governance framework executive meetings. This new structure will evolve during 2018/19 so as to provide a good overall governance base for the start of CP6.

Building public trust

As part of Network Rail's commitment to transparency, minutes of the company's Board meetings are available on our website. Additionally, Network Rail voluntarily publishes a wide range of data on its website.

At Network Rail we also aim to communicate with our stakeholders as transparently as possible. This openness in reporting has been independently recognised and in 2017, for the second consecutive year, Network Rail won PwC's "Building Public Trust Award: Excellence in Reporting in the Public Sector" (in association with the National Audit Office).

Our risk reporting was praised, and the clear descriptions of the activities undertaken to limit our environmental and social impacts were acknowledged. Network Rail's openness about the challenges it faces and the honesty in our up-front

Corporate governance continued

disclosure of instances where targets had been missed was commended.

This validation of our efforts to be transparent is welcomed. Network Rail believes that transparency in both how we work as a company and how we work with stakeholders is integral to our success. Therefore we have included transparency as a main theme in our SBP for CP6.

The Network Rail Board

During 2017/18 the Board focused much of its time on:

- Financial efficiencies.
- CP5 financial performance.
- Safety.
- Transformation and efficiencies programme.
- Strategic Business Plan for CP6.
- CP6 financial control framework.
- Third party funding and financing.
- Train performance.
- Digital railway.
- Disposal of non-core assets.

During 2018/19 it is anticipated that the Board's focus will be on:

- Managing train and financial performance in the last year of CP5, to set up for the best possible start to CP6.
- Further developing policies on diversity and inclusion.
- Review the introduction of the May 2018 timetable and the preparation for the December 2018 timetable change

Sir Peter Hendy CBE, chair
27 June 2018

Compliance with corporate governance requirements

The Board considers that the company has complied with the UK Corporate Governance Code 2016 (Code) throughout the year, other than the provisions it cannot comply with due to its status as an arm's length government body. These include:

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

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

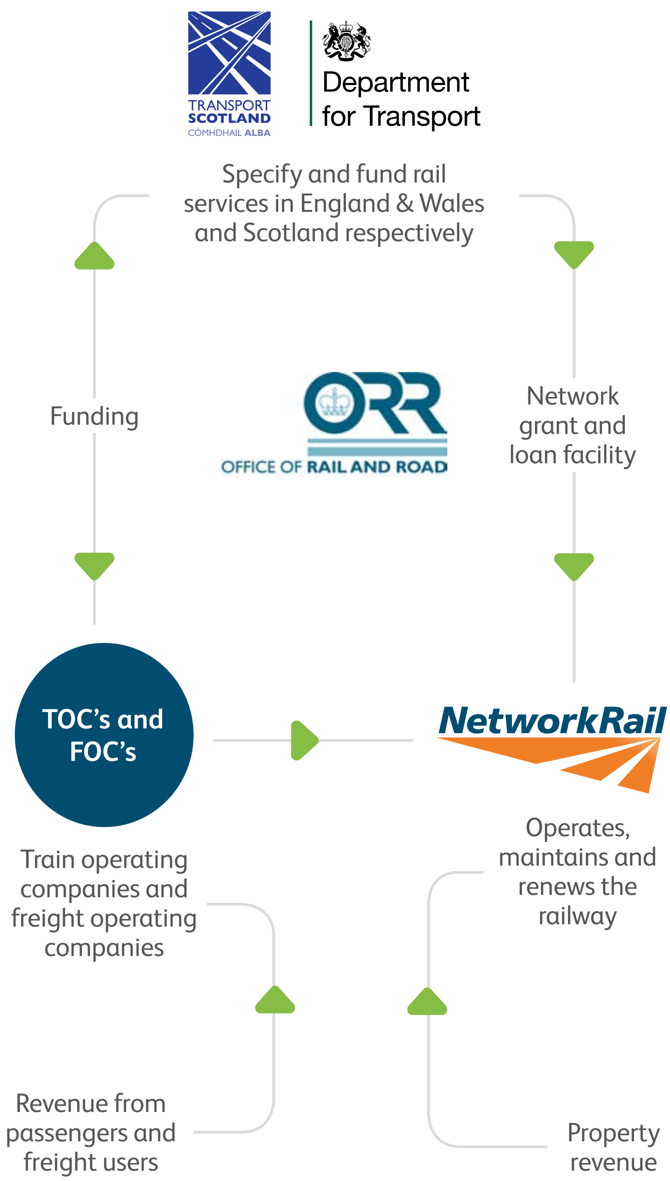
Leadership and purpose

Network Rail is an arm's length government body, which manages Britain's railway infrastructure within effective regulatory and control frameworks. The Board is accountable to the Secretary of State for Transport.

The relationship in terms of financial management and corporate governance between Network Rail and the DfT is outlined in the Framework Agreement. The FA is available on Network Rail's website: www.networkrail.co.uk. Additional arrangements are in place with the Scottish Government on delivery of specified outputs on the Scottish rail network.

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 it to deliver its commitments.

Network Rail's relationship with the DfT and ORR



Corporate governance continued

The Board's remit and responsibilities

The Board is accountable to the Secretary of State who is the sole member of the company.

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

> The remit of the Board is set out in the Matters Reserved for the Board, which can be found on Network Rail's website: www.networkrail.co.uk.

> The Board is mindful of the Code of Conduct for Board Members of Public Bodies, the 7 Nolan Principles of Public Life, the Civil Service Code and the importance of delivering value for money in its decision-making process. The 7 Nolan Principles of Public Life can be found on the Government website: gov.uk/government/publications/the-7-principles-of-public-life

The Board has delegated a number of powers to its committees.

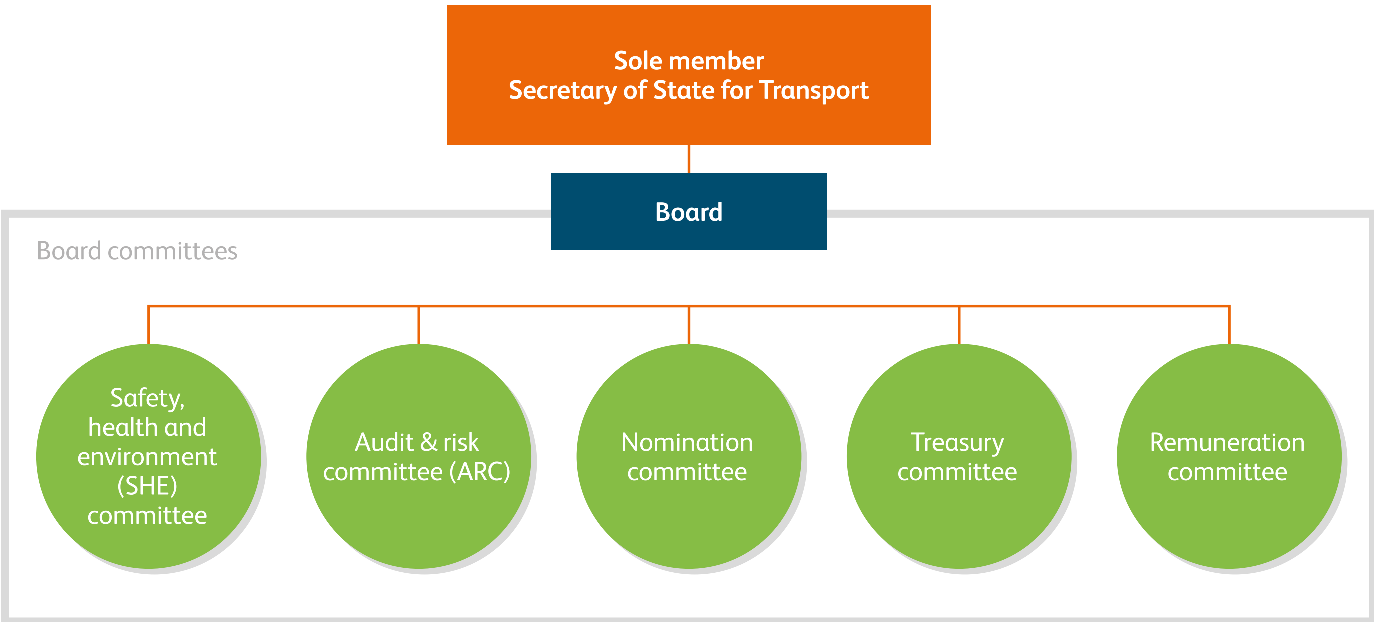
The audit and risk committee, on behalf of the Board, reviews the group's risk management strategy, risk profile and risk appetite. It also reviews the internal control structure, processes and their effectiveness. It then makes recommendations to the Board.

The remuneration committee has delegated authority from the Board to formulate the group's remuneration policy and strategy, which is designed to attract and retain leaders of the necessary calibre.

The nomination committee leads the process for Board appointments (other than for the chair and special director) and makes recommendations on their appointment to the Secretary of State for Transport.

The full powers of these committees are set out in their terms of reference, which can be found on Network Rail's website: www.networkrail.co.uk. Abbreviated versions are included in each committee's report on pages 61 to 85.

Network Rail board and committee structure



The executive committee

The executive committee, comprising the chief executive, chief financial officer and nine 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 biographies of the executive committee members can be found on Network Rail's website: www.networkrail.co.uk.

Board composition and role

At the date of this report, the Board consisted of one non-executive chair, two executive directors and eight non-executive directors (NEDs).

Photographs and biographies of the Board setting out their skills and experience can be found on pages 49 to 52.

Chair - **Sir Peter Hendy CBE**

Responsible for leading the Board, its effective functioning and promoting the highest standards of corporate governance. Encourages all directors to actively contribute to Board meetings and sets the conditions for constructive relations between the executive directors and NEDs. Represents Network Rail at its highest level and works with the chief executive to develop strategic relationships with the customers of NR, DfT, HM Treasury, Parliament, the Cabinet Office, Transport Scotland, Welsh Assembly Government and other stakeholders. Reviews performance of the NEDs.

It was envisaged that the chair's contractual commitment to Network Rail would reduce to a minimum of two days per week following his initial commitment of four days per week. However, recognising the complicated range of issues that

Corporate governance continued

the company faces, the Secretary of State agreed to alter the chair's contractual commitment to Network Rail to three days per week until 15 July 2019. Sir Peter Hendy CBE has confirmed that his other activities can be achieved without detriment to his duties to Network Rail.

Sir Peter Hendy CBE receives health care benefits from Network Rail. Further information can be found in the remuneration report on page 79.

Senior independent director (SID) - **Bridget Rosewell OBE**
Acts as a sounding board for the chair and serves as an intermediary for the other directors when necessary. Responsible for the chair's performance review. Available to the Secretary of State if he has concerns where contact through the chair has failed to resolve an issue or for which such contact is inappropriate.

Special director - **Richard Brown CBE**
Appointed by the Secretary of State. Responsible for communicating the views of the Secretary of State and the DfT's wider strategic statutory and fiduciary interests to the Board, whilst acting in accordance with his duties as a NED.

Chief executive - **Mark Carne CBE**
Responsible for setting the strategic direction of the company and for the company's performance. He keeps the Board informed and brings to its attention all matters that materially affect, or are capable of materially affecting, the achievements of Network Rail. 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. Accountable to the Board for all elements of NR's business, and specifically for safety performance. Additionally, he is the accounting officer for the company.

In this role, the chief executive is personally accountable to parliament for safeguarding the public funds available to Network Rail, for ensuring regularity and propriety, value for money and feasibility in the handling of those public funds, for the day-to-day operations and management of Network Rail and for signing the accounts, the annual report and the governance statement. 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.

The accounting officer is supported by the Board for the discharge of his obligation in Managing Public Money, for the proper conduct of business and maintenance of ethical standards. The internal audit function also supports the accounting officer. The director of risk and assurance provides his audit opinion to both the 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. (For further details on the internal audit function and on the audit and risk committee, see pages 63 to 69).

Chief financial officer - **Jeremy Westlake**
Responsible for leading NR's finance function which includes treasury, internal audit and risk, planning and regulation, long-term planning and legal and corporate services.

Independent non-executive directors - **Rob Brighouse, Sharon Flood, Chris Gibb, Silla Maizey, Michael O'Higgins and Mike Putnam**
The non-executive directors combine broad business and commercial experience from the rail and other industry sectors. They bring independence, external skills and challenge to the Board. This is critical for providing assurance that the executive directors are exercising good judgement in the delivery of strategy and decision-making.

The Board reviews the independence of its non-executive directors as part of the Board Effectiveness Review. All bar one non-executive director has served on the Board for less than six full years. Bridget Rosewell OBE has served seven years. The Board considers that each of the NEDs 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 CBE 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. Given this structure, the Board considers that Rob Brighouse, Richard Brown CBE and Chris Gibb are independent, as Network Rail is only one of many contributing companies to RPS.

Links to the statements of responsibility for each of the chair, chief executive, SID and the NEDs can be found on the Network Rail website.

Group general counsel and company secretary - **Stuart Kelly**
Provides advice and support to the Board, the chair and other directors, and ensures the timely flow of information. Responsible for the Board's training and development. Ensures that corporate governance practices are complied with. The appointment and removal of the company secretary is a matter for the Board as a whole.

Attendance at meetings

The Board met nine times during 2017/18. Two strategy meetings were also held.

Directors' attendance at Board meetings for the year ending 31 March 2018 is shown 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 61 to 85.

	Total
Rob Brighouse	9/9
Richard Brown CBE	8/9
Mark Carne CBE	9/9
Sharon Flood	9/9
Chris Gibb	9/9
Sir Peter Hendy CBE	9/9
Silla Maizey	8/9
Michael O'Higgins	9/9
Mike Putnam[1]	2/2
Bridget Rosewell OBE	8/9
Jeremy Westlake	9/9

[1]Mike Putnam was appointed to the Board on 8 January 2018

Corporate governance continued

Board recruitment and induction

During the year under review, Mike Putnam was appointed as a non-executive director and a member of the safety, health and environment committee.

A comprehensive induction programme exists for newly appointed directors. They are also provided with key corporate, strategic and financial documents. Their induction also includes individual meetings with Board members, the company secretary and other key senior management.

The appointment process for Mike Putnam and details of his induction can be found on page 71.

Professional development, training and support for directors

The Board as a whole participates in a range of training and development sessions each year. At each Board meeting a route managing director updates the Board on the key issues affecting their route. In addition, an executive committee member attends each Board meeting to provide an update on their function or service. In addition, directors regularly receive relevant corporate governance and legal updates as appropriate.

During 2017/18, three non-executive directors including the chair completed the company's diversity and inclusion training to become Diversity Champions.

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 reasonable expense to Network Rail.

Succession planning

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

To support the Board's succession planning work, members of the executive committee and the route managing directors regularly attend Board meetings to update the Board on their areas of the business. This not only assists the Board's understanding of the business, but provides development opportunities for those presenting to the Board.

Culture

The Board is responsible for the stewardship of the company, overseeing its conduct and culture, to create sustainable value for the benefit of a wide group of stakeholders.

The Board is instrumental in shaping a caring culture, leading by example and embedding this culture across the entire company. The Board wants to create an organisation that is open, diverse and inclusive, and one that benefits from the innovation and creativity that diversity brings. Network Rail actively encourages structured continuous improvement through its Better Every Day initiative, and the Board actively demonstrates its safety vision of 'everyone home safe every day'.

It is the Board's ambition to create a culture of wellbeing. It wants to reduce workforce injuries by more than 50 % and mental health related sickness absence by 30 % by the end of CP6.

The Board is committed to ensuring dignity and showing respect for our people. We therefore want to make sure that there are no more train toilet discharges to track and that proper changing facilities for colleagues of all genders exist at all locations by the end of 2019.

It is the Board's aim to increase the number of women across all levels in a range of technical and professional roles by 50 % by the end of CP6. Gender balanced recruiting of apprentices and graduates will be part of this overall drive for gender diversity.

Network Rail will be known as a company where our people work in an environment that allows everyone a fair opportunity to reach their personal potential. We will improve management training, so that our managers have the right skills to lead and inspire their teams.

We also want to have teams who care for the environment. By the end of CP6, we will have reduced our energy consumption by 18 %. We will also focus on enhancing biodiversity on Network Rail land and being great neighbours to lineside neighbours.

We simply want to become a great employer of great people working in great teams. The Board believes that by committing ourselves to all of the above, we can fulfil our ambitions.

Board and executive committee diversity

Network Rail's Board comprises nine non-executive directors and two executive directors. Of the whole Board, 73 % are male, and 27 % female. This changes to 67 % male and 33 % female when assessing solely the non-executive directors.

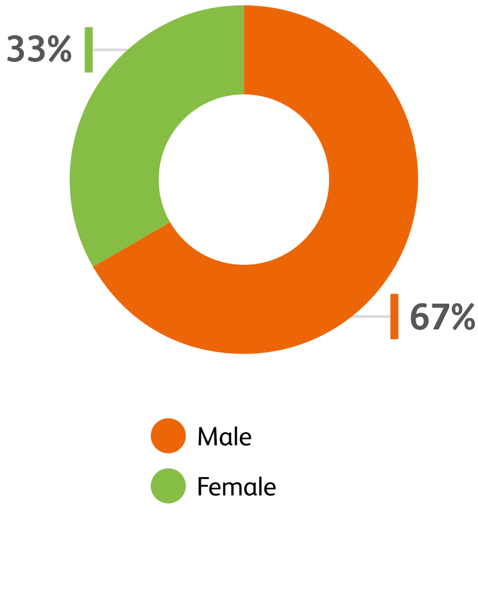
In terms of gender diversity of the executive committee, at the year-end that committee's membership comprised 64 % male and 36 % female executives. Details about workforce diversity can be found on page 35, ('Great people, great teams' section).

The Board is working to develop its policy on diversity and inclusion, particularly in terms of widening the definition of diversity beyond gender.

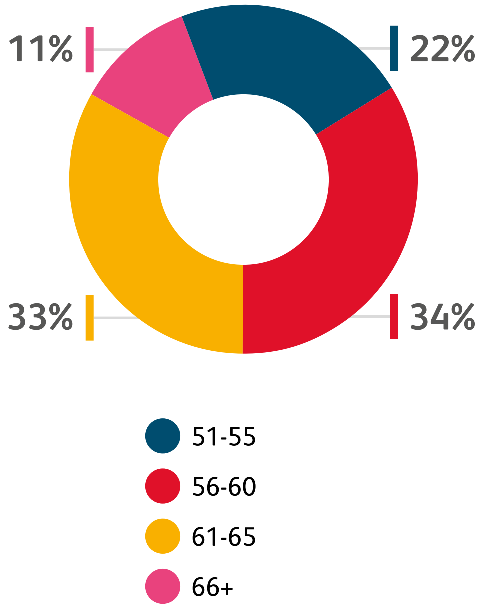
Corporate governance continued

The below charts show the composition of the NEDs by sex, age, and length of service:

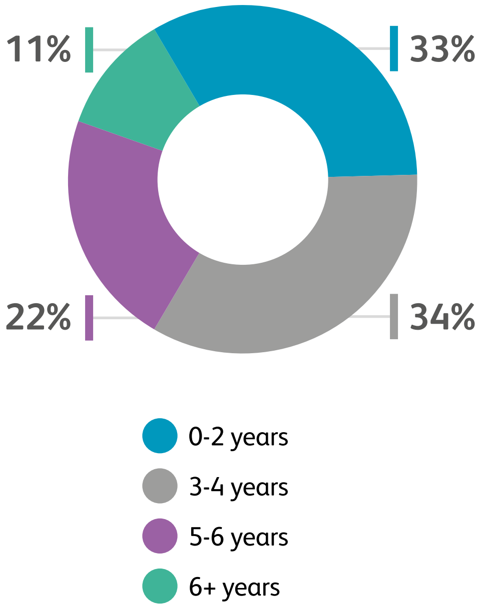
NED diversity by gender



NED diversity by age



NED length of service



Election and re-election of directors

Directors are subject to (re-)election at the 2018 AGM. All directors act in good faith, for the long-term benefit of Network Rail and continue to perform effectively.

Directors' conflicts of interests

The Board operates a policy to identify and, where appropriate, manage potential conflicts of interests that directors may have. Each Board meeting begins with disclosure of potential conflicts interests. Where such a conflict exists, the director in question would be asked to refrain from any decision-making in relation to that interest. At the date of this report, there were no conflicts of interest.

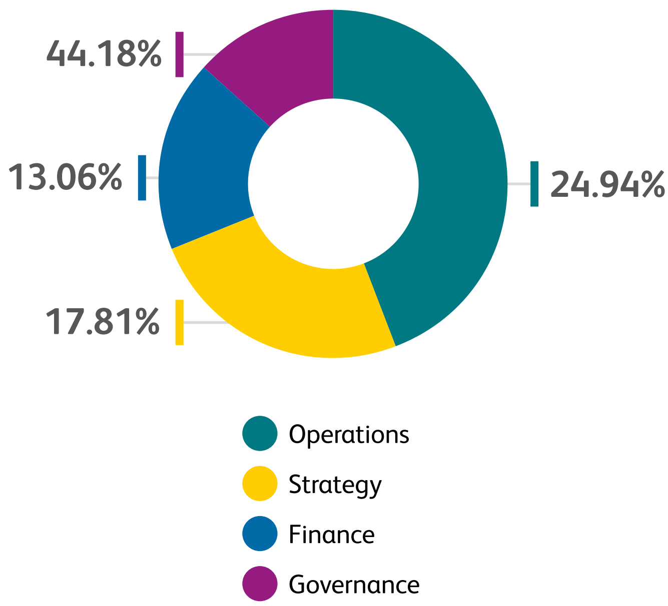
It is however appropriate to disclose:
- Rob Brighouse is chair of the Shadow East West Rail project.
- Richard Brown CBE is deputy chair and a non-executive director of HS2 Limited and a member of the DfT's Rail Expert Advisory Board.
- Chris Gibb is chair of the Thameslink 2018 Industry Readiness Board and a member of the DfT's Rail Expert Advisory Board.
- Bridget Rosewell OBE is a commissioner at the National Infrastructure Commission and a member of the DfT's audit & risk committee.
- Sir Peter Hendy CBE is chair of the London Legacy Development Corporation.

Directors and officers (D&O) liability insurance

Network Rail maintains D&O liability insurance. Network Rail did not indemnify any directors during 2017/18.

Board activities

The chart below outlines the key activities that the Board reviewed during 2017/18.



Corporate governance continued

Board effectiveness

The Board is committed to the highest standards of corporate governance. In 2014, IDDAS undertook a full Board evaluation. This was followed by two light touch reviews in 2015 and 2016. In line with the best practice, another light touch review by Independent Audit was undertaken during 2017/18.

As in previous years, the process involved one-to-one interviews with the Board members and the group general counsel and company secretary. A number of executive committee members, colleagues at the DfT and UK Government Investments, and the chairman of the ORR were also interviewed. Independent Audit also observed one Board meeting and reviewed the associated meeting papers. Independent Audit presented its findings to a subsequent Board meeting.

The key findings of Independent Audit's board effectiveness review are set out below, together with the actions being taken to address the findings.

<table>
<tr><th>Board Effectiveness Review 2017
Key recommendations</th><th>How the recommendations are being addressed</th></tr>
<tr><td>Update the company's talent matrix and seek to upskill staff with the potential to take on leadership roles.</td><td>A new head of talent and resourcing has joined Network Rail and is working to improve the identification and development of staff at all levels who have the potential to become leaders.</td></tr>
<tr><td>Continue to discuss the detailed business plan outlining how CP6 funding will be used to develop the railways to 2024.</td><td>Network Rail's business planning committee and the Board have held, and will continue to hold, regular detailed discussions on the Strategic Business Plan for CP6 and the funding available. From the first year of CP6 the funding and development of the railway to 2024 will fall within the remit of other meetings.</td></tr>
<tr><td>Further develop governance arrangements to ensure full articulation between the centre and the routes, as well as a common understanding of the division of responsibilities between both parties.</td><td rowspan="2">A new performance and business management meeting framework was introduced from 1 April 2018 to align the meetings structure to the matrix organisation of the business.

This new structure includes a series of meetings between senior leaders in the routes, the route support functions and the group functions.

The 2018/19 financial year is being used to test and develop the new meeting structure so that improvements can be implemented before the start of CP6.</td></tr>
<tr><td>Strengthen communication between the centre and the routes by creating more opportunities for interaction and feedback and a means to share best practice between route managing directors.</td></tr>
<tr><td>Accelerate culture change across the organisation and ensure regular reporting to the Board.</td><td>A number of workstreams are underway that will create culture change within the business. Progress on those workstreams will be reported to the Board at appropriate intervals.</td></tr>
</table>

During 2017/18 Network Rail undertook internal reviews of the effectiveness of the safety, health, environment committee (SHE), the audit & risk committee and the property supervisory board. The reviews required committee members and employees associated with those committees to complete anonymous questionnaires and/or one-to-one interviews. The company secretariat team analysed the results, discussed the findings with the appropriate chair, and the committee or Board as a whole. Action plans to address any issues raised have been or are being developed.

Stakeholder engagement

The directors are legally obliged to take account of the impact on the company's stakeholders when reaching decisions. Specifically, the directors must have regard to the likely consequences of any decision in the long term, the interests of the company's employees and the impact of the company's operations on the community and the environment.

Information on how Network Rail engages with the community and lineside neighbours and how it seeks to reduce its impact on environment can be found on pages 35 to 38 (sections 'Great people, great teams' and 'Being responsible').

The company is monitoring corporate governance proposals for increased engagement with employees and other stakeholder groups and will review its existing processes of engagement during 2018/19.

Corporate governance continued

Special Member

The Secretary of State for Transport is Network Rail's sole member. In that capacity, and as Special Member, the Secretary of State has certain rights, as set out below.

Rights	Detail of these rights being exercised in 2017/18
To appoint and remove the chair of Network Rail.	N/A
To approve the Board's suggested candidate for chief executive of Network Rail.	N/A
To appoint a special director of Network Rail.	During the year the special member decided to appoint Richard Brown CBE as special director for a further year.
To be consulted on non-executive director appointments.	Network Rail consulted with the DfT in relation to the appointments of Mike Putnam and David Noyes.
To hold regular meetings with the chair, to discuss corporate strategy and raise concerns.	The chair regularly meets with the SoS and the Permanent Secretary of the DfT.
To approve the three-yearly Remuneration Policy for executive directors of the company.	N/A
To set the pay for the chair and non-executive directors.	The remuneration of the chair of Network Rail was agreed by the DfT, when his contracted number of working days was reviewed.

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 company's sole member, the Secretary of State for Transport, is provided with a copy of the notice of meeting, alongside the annual report and accounts (as is the National Audit Office). The Secretary of State can vote either for or against a resolution, or can 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
27 June 2018

Mark Carne CBE, chief executive
27 June 2018

Safety, health and environment committee report

I am pleased to present the committee's report on its activities over the past year, alongside its anticipated activities for 2018/19.

Overall there has been continuing improvement in safety performance over the past year; we achieved our corporate safety targets apart from the close call close out rate target. More than ten years have elapsed since the last passenger or workforce fatality as a result of a train derailment or collision, sustaining the UK's position as one of the safest major rail networks in Europe. Significant progress has been made in implementing the risk reduction work streams, although several milestone targets were not achieved as originally planned. There were a number of derailments in 2017; notably, a freight train north of Ely, the partial derailment outside London Waterloo Station, the partial derailment at Paddington Station and the derailment near Wimbledon. These incidents are a reminder of train accident risk potential and the importance of implementing effective risk-based controls.

In terms of workforce safety (including our contractors), we had applied a 10 % reduction to the previous year's lost time injury frequency target and we have achieved this target. There has been a decrease in the number of near miss events involving the workforce. Sadly, a contractor died in an accident at a station site in Scotland on 5 June 2018. An investigation is underway.

A number of workforce safety improvement initiatives were implemented and progress has been monitored during 2017. The programme to install vehicle monitoring systems to over 7,000 road vehicles has progressed well and this has significantly reduced the number of speeding offences and the related safety risk. The revised company standard in respect of planning and delivering safe work for the workforce working on or near the railway line was rolled out in September 2017 and a robust process is in place to monitor compliance, including reporting to this committee and to the executive committee.

The reporting of close calls continues to highlight where action can be taken to address unsafe conditions or acts and over 259,000 close calls were reported throughout the year. It is recognised that slips, trips and falls remain a significant area to address where the main underlying cause is poor housekeeping at sites.

Fifty-five level crossings have been closed in the last year and a small number have been downgraded in legal status. All ten of the top ten level crossing milestones were closed as planned.

Each train operator has a Signals Passed at Danger (SPAD) mitigation and reduction programme targeted at the underlying causes of the SPADs. The routes review those plans with the operators and monitor trends in SPAD numbers, risk and signals that have been involved in multiple SPADs. These plans and actions have a good record in reducing SPAD numbers in the long term, containing and correcting any adverse trends, and mitigating the risks of collision as a consequence of SPADs.

The committee met four times in 2017/18, including a site visit to the Sudbrook Severn Tunnel pumping station in South Wales in April 2017, meeting frontline staff to gain insight into the current safety and major incident arrangements for the tunnel. The committee discussed the report into the accident in December 1991 and the investigation recommendations.

The committee reviewed its terms of reference to ensure they were fit for purpose, in light of further route devolution. It also reviewed its effectiveness and governance structure and a number of recommendations were agreed and a plan for implementation was developed.

Chris Gibb,
Chair, safety, health and environment committee
27 June 2018

Committee members	Formal appointment to the committee	Number of meetings attended during the year
Chris Gibb	Nov 2013	4/4
Rob Brighouse	Jan 2016	4/4
Sir Peter Hendy CBE	Oct 2015	4/4
Mike Putnam*	Feb 2018	1/1

*Mike Putman was appointed to the Board on 8 January 2018

Safety, health and environment committee report continued

Committee attendees

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

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

Ian Prosser CBE, 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.

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 environment policies and strategies within the Network Rail group.

The committee's activities include:

- Reviewing the group's safety, health and environment strategies, systems, policies and practices.
- 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, on the effectiveness of the group's safety, health and environment strategies, systems, policies and practices.
- Considering the major findings of internal and external investigations and management's response to them.

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: www.networkrail.co.uk.

The committee reviewed its terms of reference to ensure they were fit for purpose, in light of further route devolution, and they were approved by the Board in May 2017. The key changes were to update them and to reflect organisational changes and industry developments. The committee also reviewed its effectiveness and governance structure and a number of recommendations were agreed and a plan for implementation was developed.

Principal activities during 2017/18

Matters considered by the committee during the year included:

- A review of the adequacy of the safety validation of organisational change arrangements.
- The 2017/18 SHE objectives and linkages to CP6 SHE objectives.
- Safety, health and environment-related incidents within Network Rail and contractor operations, including lessons learned from incidents such as the derailments in 2017, the Watford derailment and the Gloucester freight train derailment.
- The delivery of infrastructure projects safely and the impact on that scorecard.
- The progress of the Planning and Delivering Safe Work (PDSW) programme and steps for embedding the updated company standard into the business.
- Presentations from a number of duty holders and route managing directors to demonstrate and discuss the adequacy and effectiveness of their safety, health and environment systems.
- Discussion of the current safety governance and assurance arrangements for the group in respect of safety leadership and close call reporting and close out and delivery of the required outcomes and improvement plans.
- Findings from corporate-level audits and agreed action plans including the close out of overdue actions.
- Progress of the sustainability and social performance strategy, including the environment and sustainability development plan and weather resilience and climate change adaptation plans and its impact on the group and wider stakeholders.
- Deep dive reviews into, amongst other things:
  - Workforce safety.
  - Station safety.
  - Train accident risk reduction, including reviews of lessons learned from historical and more recent incidents.

Planned activities during 2018/19

The committee will continue to monitor progress on the initiatives already underway to improve workforce safety, health and wellbeing, and passenger safety.

Particular areas of focus for 2018/19 will include:

- The safety management procedures across the company as devolution of responsibilities to the routes matures and develops, including attendance at the committee by the route teams to discuss their safety, health and environment systems.
- Train accident risk reduction through delivery of the risk-based programme of milestones and volumes and a deep dive review.
- Workforce safety performance and progress with key risk reduction work streams. monitored through the Home Safe Plan, the PDSW programme and updating the suite of work activity risk assessments. There will be a deep dive review into workforce safety which will report on, amongst other things, the effectiveness of the vehicle monitoring systems in company road vehicles and the electrical safety delivery programme.
- Station safety performance and future plans to mitigate the risk of increasing passenger numbers and a deep dive review.
- Level crossing risk reduction including further closures, improving risk at passive crossings and further focus on the national level crossing safety campaign.
- Public safety including measures to reduce trespass incidents and suicides, including a deep dive review.
- Ensuring that the company engages with operators, funders, regulators and service specifiers to work towards elimination of all train toilets discharging on the track by 31 December 2019.
- Actions planned to promote and improve the health and wellbeing of employees, including a deep dive review.
- Progress being made towards achieving the objectives of the environment and sustainability strategy, both in the short and longer term and a deep dive review into sustainable development.
- Continual improvement of the effectiveness of the committee and its supporting governance structure by a biennial review of the work of the committee, its membership and its terms of reference.

Audit and risk committee report

I am pleased to report on the key activities and focus of the audit and risk committee during 2017/18. The committee monitors the integrity of the group's reporting process and financial management. It ensures that risks are carefully identified and assessed, and that sound systems of risk management and internal control are in place. It scrutinises the full and half-yearly financial statements before proposing them to the Board for approval. The committee also reviews in detail the work of the external independent auditor and any significant financial judgements made by management.

Throughout the year, the committee received executive deep dives from within the business on various risks, financial, audit and governance matters. These executive deep dives are essential in enabling the committee to better understand any key issues and areas of concern. They also inform the committee how different risks are managed and mitigated throughout the business, and assist the committee to understand the progress made towards the strategic plan.

The May 2018 timetable revision and the operational issues experienced following its introduction were reviewed by the committee. This topic continues to receive close attention.

This was my first full year chairing the audit and risk committee. I would like to thank the other committee members, together with management and the NAO, for their support.

Sharon Flood,
Chair, audit and risk committee
27 June 2018

Committee members	Formal appointment to the committee	Number of meetings attended during the year
Sharon Flood	Sep 2014	4/4
Bridget Rosewell OBE	Jul 2012	4/4
Rob Brighouse	Jan 2016	4/4
Silla Maizey	Nov 2016	4/4

The committee members collectively have a broad range of financial, commercial, aviation/transport and rail sector expertise that enables them to provide oversight of financial, operational and risk matters and to advise the Board accordingly.

All members of the audit and risk committee are independent. The chair of the committee has recent and relevant financial experience.

Committee attendees

The chair of the board, the chief executive, chief financial officer, director of risk and internal audit, head of group risk and the group general counsel & company secretary attend meetings of the committee by invitation. Representatives from the National Audit Office (NAO) also attend each meeting and periodically meet with committee members without executive management present. Periodically the director of risk and internal audit meets with the committee without executive management present.

Role and responsibilities of the committee

The terms of reference (ToR) govern the structure and operations of the audit and risk committee, including its delegated responsibilities and authority. The ToR are reviewed annually to ensure the activities of the committee reflect current regulatory and governance requirements and best practice. The terms of reference can be found at www.networkrail.co.uk.

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

Financial reporting

- Monitoring the integrity of the annual report and financial statements 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 financial statements as a whole are fair, balanced and understandable.
- Reviewing the consistency of accounting policies both on a year-to-year basis and across the company; the methods used to account for significant or unusual transactions; applicable accounting standards followed or reconciled in the financial statements; and any other significant financial reporting judgements made by management.
- Internal controls and risk management.
- Reviewing Network Rail's risk management processes, risk

Audit and risk committee report continued

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 company's overall risk assessment processes that inform the Board's decision making.
- Reviewing the process undertaken and the associated work required to complete the viability statement.
- Keeping under review the adequacy and effectiveness of the group's financial reporting and internal control procedures (including financial, operations and compliance controls and risk management) prior to endorsement of such procedures by the Board.
- Monitoring and overseeing the group's compliance with accounting and regulatory requirements.

Internal audit
- Agreeing internal audit plans and reviewing internal audit reports on the effectiveness of systems for internal financial control, financial reporting and risk management.
- Reviewing the progress of the internal audit plans.
- Monitoring the status of audit actions, including any that are overdue.

Independent auditor
- Overseeing the relationships with the Comptroller and Auditor General as the independent auditor and with the NAO.
- Approving the company's independent auditor's appointment, terms of engagement and fees and reviewing the management letter and management's response.
- Considering the results of external audit work and resolution of identified weaknesses; enquiring about and considering the independent auditor's planned audit approach.
- Assessing annually, and reporting to the Board on, the independence, objectivity, qualification, expertise and resources of the Company's independent auditor.

Whistleblowing and fraud
- Reviewing the policy and procedures whereby employees can raise, in confidence, concerns about possible improprieties.
- Assuring that such arrangements allow proportionate and independent investigation and appropriate follow-up action on such matters.

Principal activities during the year
The committee works to a structured programme of activities and meetings to coincide with key events around the company's financial calendar.

The committee received detailed updates from the business at each meeting. Business updates are planned on a 12-month basis and if any matter is identified by internal audit as in need of discussion sooner than 12 months, it is added to the agenda of a future meeting.

Following each meeting, the chair provides a summary of the committee's activities, the main discussion points and findings to the next Board meeting and makes appropriate recommendations.

Some of the key topics discussed during 2017/18 were:

Accounting standards and policies
The committee assessed whether suitable accounting policies had been adopted and whether management had made appropriate judgements and estimates.

The committee received an overview of the changes introduced by the new International Financial Reporting Standard 16 (IFRS 16) with regards to leases; International Financial Reporting Standard 9 (IFRS 9) with regards to financial instruments and International Financial Reporting Standard 15 (IFRS 15) with regards to revenue recognition, and their impact on the company.

Following discussion, the committee was satisfied that based on current activities, no significant impact on NR's group accounts was expected from IFRS 9 and IFRS 15.

The changes in IFRS 16 were not expected to have a material effect on NR's profitability although they would increase net debt and non-current assets. Further details can be found in note 2 to the accounts on page 100.

Group tax strategy
Under the Finance Act 2016, large entities are obliged to publish their tax strategy online.

The audit and risk committee reviewed Network Rail's approach to conducting its tax affairs and managing tax risks. Upon reviewing the proposals, the committee was satisfied that the proposed strategy was in line with Network Rail's current practice rather than a change of direction.

> The Board approved the group tax strategy. The document can be found on Network Rail's website: **https://www.networkrail.co.uk/wp-content/uploads/2018/03/Tax-strategy-and-tax-risk-management.pdf**

The document will be reviewed periodically.

Viability Statement
The committee had oversight of the process and assessment of the group's prospects to carry on its business under severe but plausible scenarios undertaken by the risk management and internal audit functions.

Four severe but plausible scenarios had been selected and stress tested: 'Train accident', 'Exiting CP5 within financial and delivery boundaries', 'Suitable CP6 settlement' and 'Significant loss of personal or operational information'.

Financial impacts of each scenario were quantitatively assessed both pre-mitigation (a hypothetical condition that no controls were in place) and post- mitigation (taking into account the current controls that were in place).

It had been concluded that none of the four scenarios would result in a financial impact that would require NR to request additional funding.

The committee, and subsequently the Board, agreed that there was a reasonable expectation that NR would be able to continue in operation and meet its liabilities as they fall over the period to March 2021.

Fair, balanced and understandable
At the request of the Board, the committee considered whether, in its opinion, the annual report and financial statements 2017/18 are fair, balanced and understandable and whether they provide the information necessary to assess the company's position and performance, business model and strategy.

The committee received an outline of the structure of the annual report and financial statements 2017/18 and a

Audit and risk committee report continued

broad indication of its content in early stages. A full draft of the report was submitted prior to the meeting at which the committee was asked to provide its final opinion.

The assessment of such an opinion drew on work of the disclosure committee, the annual report and financial statements project group responsible for the coordination of content, verification, detailed review and challenge. Senior management confirmed that the content in respect of their areas of responsibility was fair, balanced and understandable. Following its review, the audit and risk committee stated that the annual report and financial statements 2017/18 present a fair, balanced and understandable overview, providing the information necessary to assess the company's position and performance, business model and strategy. The committee therefore proposed the document for approval to the Board.

The committee is required to review any correspondence received from regulators in respect of financial reporting. There has been no correspondence from the FRC in relation to Network Rail's financial reporting during the 2017/18 financial year.

The committee has considered whether the annual report and accounts for 2017/18 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 score card disclosed at an appropriate level based on financial reporting?

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 Department for Transport in its capacity as a member?
- Is the report understandable to a reasonably informed reader?
- Are new messages and themes clearly articulated?

The committee considers that the annual report for 2017/18 is fair, balanced and understandable and allows assessment of the group's performance and prospects.

Audit and risk committee report continued

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 below.

Accounting judgements	How the committee addressed these judgements
Valuation of rail network and compliance with regulatory requirements The revaluation model used to measure the value of the rail network consists of a number of estimates and judgements made both by the company and the Office of Rail and Road (for example anticipated financial and operational outperformance in the control period).	Detailed reports from management were considered by the committee and the methodology applied to the revaluation model was also reviewed and agreed. The committee also challenged management and the independent auditors on: • The reasonableness of key judgements and estimates in respect of the forecast for the remainder of CP5. • The appropriate level of disclosures in the annual report and accounts around the valuation process and the related assumptions and judgements.
Risk of management override of internal controls	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. The independent auditors have also focused attention on this area and provided satisfactory reporting to the committee on this matter.
Deferred tax It was considered whether it was still probable that Network Rail could expect to use its brought forward tax losses.	Reports indicated that the reclassification of Network Rail as a public body, when taken together with continued high levels of investment in the rail 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 derecognise deferred tax assets.
Valuation of investment properties Investment properties are stated at fair value. The valuations are based on assumptions and estimates that require judgement.	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.
Hedge accounting and derivatives Forward starting interest rate swaps are accounted for as cash flow hedges where it is believed that future sterling issuances are highly probable.	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 value of the interest rate swaps. Network Rail's CP5 capital investment programmes will use substantially all of the borrowing facility.
Pension assumptions 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.	The committee discussed the key assumptions, including the degree to which these were supported by professional advice from the actuaries. The independent auditors also focused attention on this area and provided reporting to the committee on this matter.

Audit and risk committee report continued

Risk management and internal controls

The Board assumes ultimate responsibility for the effective management of risk across the group, determining its risk appetite and implementation of appropriate internal controls across all departments/business units. The Board has delegated responsibility for reviewing the effectiveness of the risk management framework and internal controls to the committee. This covers all material controls including financial, operational and compliance controls and risk management systems. The risk management systems and internal controls are designed to manage rather than eliminate risk and can only provide reasonable but not absolute assurance that the group's risks are being appropriately managed and mitigated.

The risk landscape has evolved during the year; the committee therefore reviewed a number of existing and emerging significant risks affecting the group. These were:

- project and programme cost/schedule slippage.
- Gospel Oak to Barking electrification.
- the destabilising effect of change.
- the CP6 Strategic Business Plan.
- the deployment of digital railway at the start of CP6.
- the asset divestment portfolio.
- cyber security.
- the opportunities presented by HS2.
- train service reliability.

The committee was satisfied that a robust risk process was in place to manage and mitigate risks with appropriate plans and monitoring. Where risks had materialised, appropriate actions were being taken to manage the impact on passengers, customers and the organisation.

Some of the key topics discussed during 2017/18 were:

Cyber security

The committee was updated on the current status of the cyber security risk to Network Rail and the mitigation strategies. The committee noted that attacks against or affecting rail infrastructures had occurred in the last six months and a broader increase in threats had been consistently reported by UK security services and other intelligence feeds available to Network Rail. Network Rail's defences against these threats had been effective, and substantial progress had been made in bringing the risk under control. The team continued to review vulnerability of the systems and any likely exposure; further work was being undertaken to strengthen the governance and assurance systems.

Project and programme cost/schedule slippage

The committee reviewed the general enhancement portfolio 'landscape' within which Network Rail Infrastructure Projects (IP) had operated, and identified a number of issues. A series of remedial actions had been implemented, which were strengthening the planning and delivery of IP projects. The portfolio of projects had remained within the 'Hendy cap' for CP5, albeit with financial constraints.

Further information on Network Rail's approach to risk management and on the analysis/ scenario testing for the viability statement can be found on page 46.

Audit and risk committee report continued

Internal audit

The committee approves the annual Internal Audit plan (plan), which is structured to align with the group's strategic priorities and key risks. At each meeting the director of Risk and Internal Audit updates the committee on any changes to the plan and the reasons for deviation from the plan, notable audits, overdue actions, and themes and key issues arising from audits. Reports on major findings of internal investigations (and management's response to them) are also discussed on a regular basis. Our assurance processes have identified areas for improvement in our internal controls. Plans are in place to address these and are being monitored closely by the audit and risk committee.

External audit

Independent auditor

The Comptroller & Auditor General (C&AG), supported by the NAO, was appointed as Network Rail's independent auditor in 2015. In addition to providing an opinion on the group accounts, the C&AG also audits the accounts of the main trading subsidiaries of Network Rail. PricewaterhouseCoopers (PwC), the previous independent auditors, continued as the independent auditors for the remaining subsidiaries in 2017/18.

The obligation to appoint the C&AG as NR's independent auditor is a direct impact of the reclassification of Network Rail as a central government body and is in line with standard arrangements for central government bodies. The company is, therefore, unable to comply with the Competition and Markets Authority's Order and the Code that require listed companies to undertake a competitive tender process prior to the appointment of the auditor. This will remain the company's position for the foreseeable future.

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 without prior approval by the committee, other than for audit services or tax compliance services.

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 2017/18 the fee for audit services was £0.51m (£0.5m in 2016/17). This includes the NAO's cost of auditing Network Rail Infrastructure Limited, Network Rail Infrastructure Finance plc, Network Rail (High Speed) Ltd, the Regulatory Accounts and review of interim financial statements of Network Rail Limited and Network Rail Infrastructure Finance plc. It excludes the cost of the audit of some smaller subsidiaries which continue to be performed by PwC.

The fee to PwC for auditing the smaller subsidiaries was £113k.

Audit and risk committee report continued

A Value for Money report on the Thameslink programme
During the year, the committee considered the NAO's report on Thameslink in respect of the Department for Transport's and Network Rail's management of the remaining elements of the programme as it nears completion.

The committee noted the contents of the report including its key findings that:
- Network Rail had delivered the infrastructure works to schedule in a challenging environment, although there had been planned and unplanned disruption to passengers.
- Since the budget re-forecast in May 2015, Network Rail had kept its infrastructure budget stable and had improved its financial control over the programme.
- The wider rail network could not yet reliably support the Thameslink programme's new services.
- The Department for Transport was deferring the full introduction of the new services by up to a year, in order to improve the management of the risks of each service change.

Overall the Thameslink programme was found to be delivering benefits to passengers through station improvements and more spacious trains. The infrastructure work in central London was nearing completion and costs were stable.

A number of lessons learnt were now business as usual, e.g. the introduction of measures to improve the way Network Rail managed design changes or the use of more sophisticated cash forecasting techniques. The committee would continue to monitor this group's significant risk.

Committee performance effectiveness
During the year, an internally facilitated evaluation of the effectiveness of the committee was undertaken. Feedback was initially obtained through an anonymous questionnaire to members and other regular attendees of the committee. There then followed a series of interviews which elicited further detailed views. The outcome of the evaluation was a finding that there were no significant concerns about the effectiveness of the functioning of the committee. Several areas were identified that would contribute to the overall improvement to the committee and steps have been taken to implement these.

Effectiveness of the external auditor
A review of the independent auditor's performance and effectiveness is undertaken as part of the overall effectiveness review of the auditing process. Following the conclusion of each reporting cycle/financial year, the auditing process was assessed. The independent auditor was invited to comment on what worked well and where improvements could be made. The committee reviewed the review's findings and decided that the independent auditor was fully effective and performed as expected in discharging its duties and obligations.

Speak Out
Network Rail's confidential reporting service and 'Speak Out' whistleblowing policy has been in place since 2012. Our Speak Out line is run by an external company on behalf of Network Rail, and all reports are investigated by our independent Business Integrity team.

Our Speak Out policy has been amended this year to add clarity on maintaining the confidentiality of those who raise a concern covered by the policy, and to include bullying and harassment.

Mandatory company-wide ethics training, which includes whistleblowing, has been fundamental in raising awareness of the Speak Out line. Over 35,000 employees and contractors completed our first ethics training course 'Doing the Right Thing' (launched in 2015). In January 2018 we launched new mandatory ethics training to the business, designed to consolidate our employee's knowledge and understanding of business ethics at Network Rail. This second course (covering fraud, conflicts of interest, corporate hospitality, bribery and modern slavery) includes a reminder of our whistleblowing policy and how to report concerns about suspected wrongdoing taking place within Network Rail. Four months after launch, the new training has been completed by almost 14,000 employees and contractors.

In 2017/18, a total of 296 reports were made to our Speak Out line, broadly consistent with the 345 reports made in 2016/17. We are confident that our employees – and those working on our behalf – now have a greater level of awareness of business ethics, and our responsibilities as a public sector organisation. With this comes a change in culture, and as a result the number of reports made to Speak Out was expected to stabilise. Of the 296 reports made, 54% were substantiated and action taken.

In 2018/19, we will continue to raise awareness of Speak Out by closely monitoring completion rates of our new ethics training, using targeted follow up communications in any function or route where these are lower than we would expect. This will complement our planned communications to further promote the Speak Out line.

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

Particular areas of focus for 2018/19 will include:
- Internal Audit and other assurance plans.
- Integrity of internal controls and effectiveness of risk management across the group.
- Oversight of the most significant risks within the group.
- Review of the key risks and internal controls associated with devolution, and how those risks and controls will evolve to provide assurances to the board.
- Scrutiny of the issues surrounding the introduction of the May 2018 timetable, and the adequacy and effectiveness of the associated internal controls.
- Monitoring and oversight of new accounting and regulatory developments.

Nomination committee report

I am pleased to present the committee's report into its activities during 2017/18.

The primary focus of the committee was on the appointment of Mike Putnam, a non-executive director. Mike is experienced in infrastructure development as well as construction and delivery. He has a background of successfully driving operational performance and business improvements. Mike's biography can be found on page 52, and further details of the appointment and induction processes are on page 71.

The committee has also reviewed the membership of board committees following Mike's appointment and the external commitments of other non-executive directors. As a result, Mike was appointed to the safety, health and environment committee, Rob Brighouse stood down from the treasury committee and Sharon Flood relinquished her membership of the remuneration committee.

Following chief executive Mark Carne CBE's announcement on 6 February 2018 that he planned to retire from Network Rail during 2018, the committee commenced a search for his replacement. On 21 May 2018 Network Rail announced that Andrew Haines OBE would be appointed as chief executive upon Mark Carne CBE's retirement. Details of that process and the outcome will be reported in the 2019 annual report and accounts.

During the year, Network Rail has undertaken effectiveness reviews of the main Board, the safety, health and environment (SHE) committee, the audit & risk committee (ARC) and the property supervisory board. The findings from those reviews have been assessed, and action plans have been put in place to address any issues of concern. More information can be found regarding the main Board effectiveness review on page 59, the SHE committee review on page 61 and the ARC review on page 63.

Bridget Rosewell OBE,
Chair, nomination committee
27 June 2018

Committee members	Formal appointment to the committee	Number of meetings attended during the year
Bridget Rosewell OBE (chair)	Sep 2016	2/2
Richard Brown CBE	Oct 2015	2/2
Sir Peter Hendy CBE	Oct 2015	2/2
Michael O'Higgins	Sep 2016	2/2

Committee attendees
The chief executive and the group general counsel and company secretary attend meetings of the Committee, by invitation.

Role of the committee
The role of the committee is to assess, review and monitor Board composition, as well as assessing the effectiveness of the Board and its 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 our website: www.networkrail.co.uk.

Principal activities during the year 2017/18
Matters considered by the committee during the year included:

Renewal of non-executive director appointments
The performance and independence of two non-executive directors whose term of appointment was due for renewal during the year, were considered. While letters of appointment refer to appointments being for a three year term, all directors are subject to election or re-election at the Annual General Meeting each year.

Richard Brown CBE is appointed by the Secretary of State for Transport, so in his case the committee's review was to consider recommending his reappointment to the Secretary of State. Richard did not participate in any discussion related to his own reappointment.

For Sharon Flood, following an assessment of her performance, outside commitments and independence the

Nomination committee report continued

committee was able to recommend her reappointment to the Secretary of State, who endorsed Sharon's reappointment.

Search for and appointment of non-executive director

An independent executive search firm, Korn Ferry, was used to manage and support the search and appointment process for a non-executive director to replace Malcolm Brinded who retired from the Board in July 2016.

Following the placement of an advertisement for this role in a national newspaper, a long list of candidates was drawn up by Korn Ferry, which discussed the role with the candidates. Korn Ferry then reviewed the long list with Network Rail, and a short list of candidates identified.

Those on the short list were interviewed by Bridget Rosewell OBE, Sir Peter Hendy CBE and Michael O'Higgins. Following those interviews, Mike Putnam was identified as the 'preferred candidate'. He met with Mark Carne CBE following which a recommendation was made to the Secretary of State for Transport that Mike be appointed as a non-executive director. The Secretary of State approved Mike's appointment, which was effective from 8 January 2018.

Non-executive director induction programme

A comprehensive induction programme was developed, which took account of Mike Putnam's background knowledge and experience.

Mike met individually with Board colleagues, members of the executive committee, senior executives from around the business and colleagues at the Department for Transport and UK Government Investments.

He undertook a number of site visits to learn about a range of infrastructure programmes in process.

In addition, Mike was provided with a wide range of reading material.

Board Effectiveness Review

In Autumn 2017 Network Rail undertook an externally facilitated, light-touch review of the Board's effectiveness. This was led by Independent Audit, and independent governance experts.

The review involved interviews with all Board directors, the group general counsel and company secretary, two route managing directors, a member of the executive committee and representatives from the Department for Transport, UK Government Investments and the Office of Rail and Road.

The reviewer also observed one Board meeting, having also reviewed the papers for that meeting.

The outcome of the review was presented to the Network Rail Board in March 2018.

Further information can be found in the corporate governance report on page 59.

Planned activities during the coming year 2018/19

- The search for and appointment of a further non-executive director to replace someone who had indicated their intention to step down from the Board during summer 2018.
- A detailed, independent evaluation of the Board's effectiveness in 2018.
- Consideration of a proposal to amalgamate the nomination and remuneration committees.

Treasury committee report

Throughout 2017/18, the committee has continued to receive in-depth executive briefings from the treasury function on a range of financing, debt, risk and treasury matters.

Since reclassification, Network Rail's source of borrowing is via a Department for Transport loan facility.

As funding is limited, NR is proactively seeking third party financing of rail enhancements in CP6.

In addition, Network Rail is seeking to sell non-core railway-owned property assets that are not essential for running a safe, reliable and growing railway. Sale proceeds will be used to fund the Railway Upgrade Plan, improving and enhancing the rail network for the benefit of passengers and the UK economy as a whole.

The committee will continue to oversee these activities in the year ahead.

Sharon Flood

Sharon Flood,
Chair, treasury committee
27 June 2018

Committee members	Formal appointment to the committee	Number of meetings attended during the year
Sharon Flood*	Sep 2014	3/3
Bridget Rosewell OBE	Jul 2012	3/3
Rob Brighouse**	Jan 2016	2/2
Silla Maizey	Nov 2016	3/3

* Chair since September 2016
** stood down from the Committee in February 2018

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

Role and responsibilities of the committee
The terms of reference (ToR) govern the structure and operation of the treasury committee, including its delegated responsibilities and authority level. The ToR are reviewed regularly, to ensure the activities of the committee reflect its current activities and best practice. The last such review was undertaken in February 2018 and the revised ToR were approved by the Board in March 2018. The terms of reference can be found at www.networkrail.co.uk.

The committee's role is to:
- Review and satisfy itself as to the appropriateness of proposed treasury transactions including banking, cash management and cash forecasting, 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, financing activities, bank relationships and regulatory requirements.
- Review the Treasury function's financial reporting and internal control procedures.
- Approve specific transactions in the areas of treasury responsibility.

Principal activities during the year
The committee receives detailed updates from the Treasury department at each meeting. Updates are planned 12 months ahead, although if any matter is identified by Treasury as being in need of discussion sooner, it is added to the agenda of a future meeting.

Following each meeting, the chair provides a summary of the committee's activities, the main discussion points and findings to the next Board meeting and makes appropriate recommendations.

Some of the topics discussed during 2017/18 are outlined below:

CP6 financial framework
Network Rail continued to explore options for securing sustainable funding and financing arrangements for CP6 and beyond. The committee reviewed and discussed key issues associated with the CP6 Financial Framework. Arrangements for the restructuring of existing debt and

Treasury committee report continued

the mechanism by which the company would receive funding in CP6 are part of ongoing discussions with the DfT and HMT.

Third party funding and financing

The committee continued to review progress on identifying potential opportunities for attracting private finance for rail enhancements and progress on third party funding activities. A number of schemes had been identified and detailed assessments of operational feasibility and commercial viability of these schemes had commenced.

Treasury

Further matters considered by the committee during the year included:

- Review of DfT loan draw downs, use of pre-hedges, and associated maturities.
- Regular review of cash flow forecasting, including actual cash performance vs. budget, analysis of variances and reviews of the company's funding and liquidity positions in the light of DfT loan limits.
- Annual review of the adequacy and effectiveness of treasury policies and approving the annual update of the Treasury Policy Manual and Risk Register.
- Review of existing collateral arrangements and agreement of a new collateral funding facility provided by DfT.
- 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 2018/19 will include:

- Ongoing efforts to raise cash via the disposal of non-essential railway assets, to protect the delivery of railway outputs for CP5 within the DfT loan limit.
- Exploring alternative approaches to raising capital to fund enhancements (including the digital railway) in future control periods.
- Agreeing the CP6 Financial Framework setting out NR's future capital and financing structure.
- Assessing strategic and/or corporate finance opportunities that may be proposed to the Board.
- Monitoring cash flow and loan limits management.

Directors' remuneration report

Directors' remuneration report

Annual statement from the remuneration committee chair

I am pleased to present the 2018 directors' remuneration report from the Network Rail remuneration committee. The remuneration committee is dedicated to the highest standards of disclosure on remuneration and recognises that executive remuneration 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.

The 2017 remuneration report, including the three year Remuneration Policy for executive directors (Policy), was approved at the AGM by our member, the Secretary of State. The Policy sets out the framework and limits for how executive directors are paid. The policy was included in the 2017 directors' remuneration report and can also be viewed on our website, www.networkrail.co.uk.

The terms of reference for the remuneration committee were revised in 2017 and agreed, strengthening the governance model and giving the committee a broader remit, covering over 50 of the top roles.

Our annual remuneration report outlines the outcomes for 2018 in respect of executive remuneration and will be subject to approval from our member, the Secretary of State.

The key points to note from 2018 are:
- The performance related pay outcome, which is determined by performance against the scorecard.
- However, both executive directors voluntarily declined any performance related pay for this year due to the timetabling issues experienced in May 2018.

Determining executive pay at Network Rail – best practice corporate governance

Developing policy:

Remco
Develops policy for approval

ORR
Network Rail's plan must create an appropriate framework of incentives to comply with any objectives that ORR may specify from time to time

SoS
Approves policy

Implementing policy:

SoS
Approves policy

Remco
Makes decisions within policy including individual salaries, setting and assessing performance targets, the outturn of performance related pay and arrangements for joiners or leavers

Directors' remuneration report continued

The remainder of this statement explains how executive remuneration is determined at Network Rail, gives more detail on the outcomes in respect of 2018 and summarises the Policy agreed in 2017.

Remuneration committee agenda items during the year

The main agenda items discussed this year were:

- The application of the broader remit across executives.
- The commissioning and scoping of a review of senior remuneration, below executive director level. The review has been jointly commissioned by HM Treasury, Department for Transport and Network Rail.
- Proposed pay principles to set a framework for senior remuneration decisions.

Implementation of Policy in 2018

During the year the remuneration committee made decisions within the framework agreed as part of the policy in 2017.

The policy is underpinned by four key principles which are:

1. **Simple** – the framework should be simple and transparent for all stakeholders to understand.
2. **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 for the taxpayer and to reflect our status as a publicly funded body.
3. **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.
4. **Aligned with employees** – where possible, remuneration structures will be aligned across the organisation. All Network Rail employees continue to be eligible for performance related pay determined using a consistent performance framework across the organisation.

The remuneration framework for executive directors is based on these principles and includes the core elements:

Salary	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.
Benefits and pension	Participation on the same basis as other managerial positions at Network Rail.
Performance related pay	One plan based on the achievement of stretching annual performance targets aligned to the business scorecard.

All decisions and payments made to executive directors during the year were within the agreed policy framework.

With the extended remit of the committee to all senior roles above the pay threshold of £142,500 additional governance was introduced during the year. This included an annual review of all roles at this level, and will also include annual pay reviews, remuneration policy and performance related pay.

2018 outcomes

Business performance is measured through the business scorecards. These measure performance against key measures and targets agreed with customers and stakeholders. Performance related pay for senior executives is determined by the scorecard outturn and modified according to personal performance ratings, so the lower the performance, the lower the performance related pay.

Overall performance against the scorecard was 54.6 %. This is the first time our overall performance has exceeded the target of 50 % since 2010. There was very strong performance on asset management and safety. Route performance was also strong however a small number of routes were below individual targets. Despite improvement on last year, financial and train performance still fell below the targets set. The maximum performance related pay for executive directors is 20 % of salary.

Both the chief executive and the chief financial officer decided voluntarily to decline any performance related pay for the year. They are both aware that the problems introducing the new train timetables in May 2018 have been unacceptable and have had serious impacts on passengers. The problems have been industry-wide and they took this decision to demonstrate their accountability for the parts of the problems which were caused by Network Rail.

Full details of the decision making and outturn of the performance related pay scheme can be found on page 77.

The business scorecards have continued to evolve and are the key component to determining performance related pay. The national scorecard reflects measures that are most important to the customers of our routes, our stakeholders and the ORR. All route scorecards are developed jointly with customers to reflect their differing needs, as well as those of passengers, within an overall framework of safety, financial performance, train performance, asset management, investment and local customer measures.

To reflect the devolved nature of the business, 60 % of performance related pay for those in routes is determined by performance against the route scorecard with the remaining 40 % determined by the national scorecard outturn.

Michael O'Higgins,
Chair, remuneration committee
27 June 2018

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. Where indicated, some of the disclosures in these sections have been audited.

Single total figure of remuneration for 2017/18 (audited)

The table below summarises all remuneration for the executive directors in respect of 2017/18 (and the prior year comparative). Further discussion of each of the components is set out on the pages which follow.

£'000	Salary		Benefits[1]		Pension[2]		Performance Related Pay (PRP)		Total	
	2017/18	2016/17	2017/18	2016/17	2017/18	2016/17	2017/18[3]	2016/17	2017/18	2016/17
Mark Carne	682[4]	683	23	23	64	64	0	50	769	820
Jeremy Westlake	353[5]	354	15	14	31	31	0	26	400	425

1. Benefits include car allowance, private medical cover, any annual travel subsidy and life assurance.
2. 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 or allowances for those who have opted out of their respective pension arrangements in the relevant year (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 78.
3. No performance related pay as the executive directors voluntarily decided to decline receiving any payments due to the May 2018 timetabling issues that emerged after the end of the year.
4. Mark Carne CBE's 2017/18 salary is lower than the previous year due to one less working day i.e. Monday – Friday, in the reporting period. Salary is paid in 4 weekly periods and is pro-rated based on working days in each 4 week period. Mark Carne CBE declined his annual pay award in 2017.
5. Jeremy Westlake's 2017/18 salary lower than previous year due to a combination of annual pay award in 2017, fewer working days in the reporting period and salary deductions due to flexible annual leave.

Executive director changes

There were no Executive Director changes during 2017/18, however Mark Carne CBE will be retiring and leaving Network Rail in late summer 2018.

Incentive plan 2017/18 – annual performance related pay (audited)

At the start of the year, two directors were eligible to participate in this scheme, Mark Carne CBE and Jeremy Westlake. The maximum potential annual performance related pay award for executive directors in 2018 was 20 per cent of salary. Stretching performance targets were set at the start of the year in the context of the national scorecard, which can be found on page 8. The approach for performance related pay is aligned across the businesses, including executive directors. The scorecard outturn determines the percentage payout against the maximum award (20 % of salary). This is then modified in accordance with the performance rating. For a 'good' performance rating, the amount is reduced by applying a modifier of 0.9.

In 2018 the outturn of the national scorecard was 54.6 %. As noted above, both of the executive directors decided that they would decline any performance related pay for the year.

Performance against the national scorecard is summarised on page 9. Overall scorecard performance was above target. Specifically, targets were met or exceeded in relation to safety and asset management. Route performance was generally above target however three of the nine routes fell below target. Despite improvement in performance against last year, further improvement is still required around financial and train performance which still fell below the targets set.

Corporate governance

Directors' remuneration report continued

The ORR Board wrote to Network Rail's remuneration committee setting out its views on Network Rail's performance in 2017/18. Each year the Safety, Health and Environment (SHE) committee considers the overall scorecard outturn from a safety perspective and decides whether to recommend any further adjustments to reflect safety performance.

Having reviewed the safety measures outturn and the overall safety performance, the committee concluded that the scorecard outturn on safety measures is a reflection of overall safety performance and no adjustments should be made.

Pension (audited)

1. Executive directors are eligible to participate in one of the Network Rail defined benefit pension schemes or the defined contribution pension scheme on the same basis as other employees.
2. Executive directors who have opted out of their respective pension arrangements to protect their Lifetime Allowance (£1.03m since 6 April 2018) are eligible to receive a pension allowance on the same basis as other employees, subject to the discretion of the group HR director. This allowance is equivalent to the employer's pension contributions otherwise payable to the relevant pension scheme, less an adjustment for the cost of providing continued life assurance and the employer National Insurance Contributions payable.
3. Executive directors receive an additional pension allowance in the form of a cash supplement based on a percentage of their earnings above the notional earnings cap (£160,800 for 2018/2019 tax year and previously £154,200 for 2017/2018).

The table below sets out details for executive directors for 2018 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 77.

	Defined benefit schemes				Other pension arrangements		
	Normal retirement age	Accrued pension at 31 March 2018 £000	Increase in accrued pension (net of inflation) during 2017/18)	Tansfer value of accrued pension at 31 March 2018 £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
Mark Carne	–	–	–	–	–	64	64
Jeremy Westlake	–	–	–	–	–	31	31

The normal retirement age shows the age at which the director can retire without actuarial reduction.

Transfer values as at 31 March 2018 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.

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 2016 and have not increased.

The table below summarises the remuneration for the non-executive directors in respect of 2017/18.

	2017/18		2016/17	
	Fees £000	Benefits £000	Fees £000	Benefits £000
Rob Brighouse[1]	50	–	50	–
Richard Brown CBE	50	–	50	–
Sharon Flood[2]	70	–	59	–
Chris Gibb[3]	70	–	66	–
Peter Hendy[4]	411	1	502	1
Silla Maizey[5]	40	–	14	–
Michael O'Higgins	60	–	60	–
Mike Putnam[6]	9		–	
Bridget Rosewell OBE	69	–	70	–

1. In addition, Rob Brighouse received £13,500 from DfT via Network Rail for time spent in April 2017 as Interim Chair of East West Rail Company. This payment was reimbursed in full. Payments for time spent after April 2018 were paid directly from the DfT.
2. Increase in Sharon Flood's remuneration as a result of increased fee in 2016/17. 2017/18 represents a full year's remuneration at the new rate.
3. Increase in Chris Gibbs' remuneration as a result of increased fee in 2016/17. 2017/18 represents a full year's remuneration at the new rate.
4. In addition to fees, Sir Peter Hendy CBE also receives private medical cover which was agreed with the DfT in 2015 at the time of his appointment. The 2016/17 figure has been updated to show value of cover received. Sir Peter Hendy CBE also reduced his working hours in July 2017 which is reflected in the decrease in remuneration.
5. Silla Maizey joined the Board during 2016/17 on 22 November 2016.
6. Mike Putnam joined the Board during 2017/18 on 8 January 2018.

Payments to former directors (audited)

There were no payments to former directors in 2017/18.

Payments for loss of office (audited)

There were no payments for loss of office to executive directors in 2017/18.

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.

Mark Carne CBE is a director of the Rail Delivery Group Limited and also an independent governor of Falmouth University. He receives no fees in respect of these appointments.

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 annual performance related pay (APRP) of the chief executive and all Network Rail employees from 2016/17 to 2017/18.

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 77.

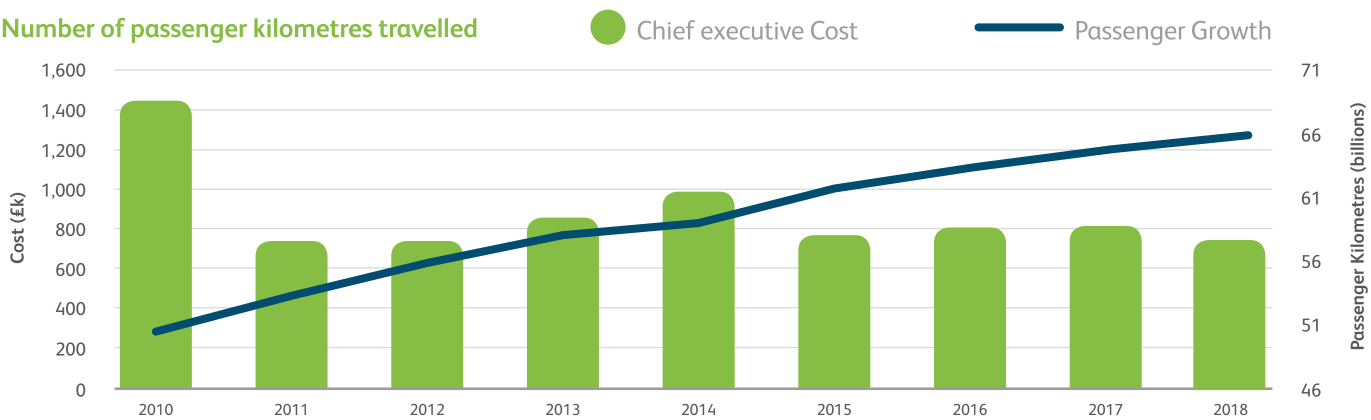
	Chief executive	All employees
Salary[1]	0 %	3.0 %
Benefits	0 %	0 %
Performance related pay[2]	0 %	0 %

1. Based on salary reviews effective on either 1 January or 1 July 2018.

2. Performance related pay 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 (i.e. share price and re-invested dividends) over an eight-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.



	2017/18	2016/17	2015/16	2014/15	2013/14		2012/13	2011/12	2010/11		2009/10
Chief executive	Mark Carne	Mark Carne	Mark Carne	Mark Carne	Mark Carne	David Higgins	David Higgins	David Higgins	David Higgins	Iain Coucher	Iain Coucher
Single total figure of remuneration	£769k	£820k	£811k	£771k	£200k	£790k	£836k	£736k	£161k	£528k	£1,447k
PRP (% of vesting)	54.6 %	37 %	34.7 %	0 %	20.9 %	N/A	28.6 %	0 %	N/A	N/A	56.8 %
LTIP (% of vesting)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	47.8 %

Iain Coucher was appointed chief executive on 1 August 2007. He resigned on 31 October 2010.
David Higgins was appointed chief executive on 1 February 2011. He resigned on 28 February 2014.
Mark Carne CBE was appointed chief executive on 24 February 2014. He will be leaving late Summer 2018.
Mark Carne CBE also voluntarily declined any performance related pay in 2018.
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.

	2017/18	2016/17	Change (%)
Total employee remuneration	£2,419m	£2,160m	12.0 %
Benefits	£9,985m	£9,794m	2.0 %

The increase in total employee remuneration is mostly due to increased pension costs, headcount increases and salary inflation. In addition, recent rulings on holiday pay and the apprenticeship levy have added further to the overall employee cost.

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, Sharon Flood, Sir Peter Hendy CBE and Richard Brown CBE.

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 satisfied 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 www.remunerationconsultantsgroup.com.

Deloitte did not provide any advice to the committee during 2017, and as such no fees were payable in this respect.

Key remuneration committee agenda items during the year:

May 2017 (2 meetings)	• Executive director remuneration report and Remuneration Policy 2017 • Scorecard 2016-17 outturn for performance related pay decisions
December 2017	• Senior remuneration review
January 2018	• Senior remuneration review
February 2018	• Senior remuneration review • Scorecard 2017-18 outturn for performance related pay decisions

Directors' remuneration report continued

Committee members

Member	Formal appointment to committee	Number of meetings attended during the year
Richard Brown CBE	July 2015	3/5
Sharon Flood[1]	September 2014	4/4
Sir Peter Hendy CBE	July 2015	5/5
Michael O'Higgins[2]	November 2012	5/5

1. Stepped down from the committee in February 2018.

2. Chair since July 2013.

Role of the remuneration committee

During the year, the role of the remuneration committee was extended to cover policy, governance and decision making in relation to all senior employees with salaries above the pay threshold of £142,500.

The full terms of reference of the committee can be found on the website: www.networkrail.co.uk.

Executive directors' remuneration policy

The remuneration policy was reviewed in 2017 and was approved by the member at the AGM.

The policy is outlined in the summary table below, with the full policy available in the 2017 annual report (https://cdn.networkrail.co.uk/wp-content/uploads/2017/07/Network-Rail-Annual-report-and-accounts-2017.pdf).

The policy is based on four core principles:

Simple	Competitive and fair	Focused on safety and performance	Aligned with employees
The policy should be clear and transparent for all customers and stakeholders to understand.	Remuneration should appropriately reflect the skills and experience of the individual, and the scope and complexity of the role. At the same time, it should provide value for money for customers, taxpayers and passengers.	The framework covering performance related pay should reward exceptional performance in the areas which are most important for Network Rail, our customers and stakeholders – such as safety, train performance and financial management. A key component of financial management is the focus on driving efficiency and managing costs effectively. There should be no reward for failure.	All Network Rail employees continue to be eligible for performance related pay using a consistent performance framework across the company.

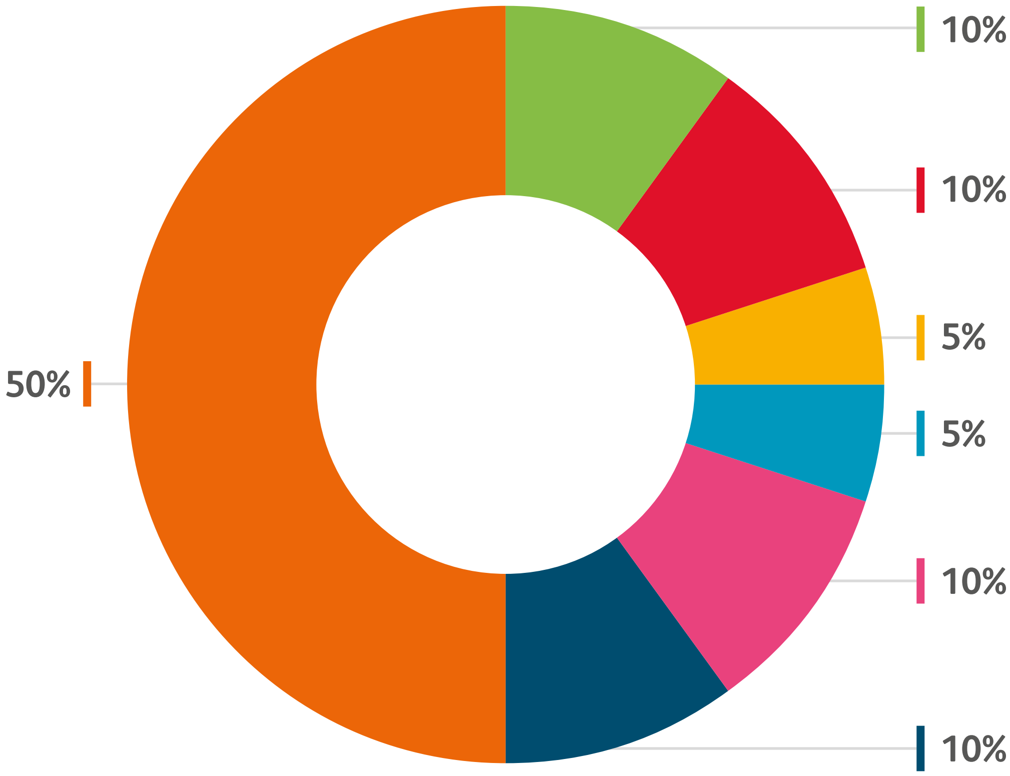
Directors' remuneration report continued

The policy is summarised below:

Fixed	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 caliber 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 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 in line with other management positions.
	Pensions	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 up to ten per cent of salary above the Network Rail pension cap.
Variable	Performance related pay	One performance related pay plan based on stretching annual performance targets which our stakeholders care about most. Cascading the performance framework across the organisation creates aligned objectives and shared successes. For executive directors, a maximum opportunity of 20 per cent of salary, subject to performance, and any amount is deferred for three years.

Directors' remuneration report continued

Pay for performance structure for executive directors – aligned to what is important for customers



- Safety
- Financial performance
- Investment
- Asset management
- Train performance
- Locally driven customer measures
- Route performance

The National Scorecard tracks our performance across the six key areas that matter most to customers. The KPIs relevant to management are captured on the scorecard, but other levels of the organisation may review different KPIs that support these same performance outcome areas.

Balanced scorecard business performance targets for 2018/19

The table on page 83 summarises the business performance measures for executive directors for the 2018/19 financial year based on the framework described on page 82.

The overall national business scorecard used to measure performance every period is used for performance related pay measures and targets across the business.

The 2018/19 route scorecards contain devolved train performance measures which encompass locally driven measures, set in alignment with train operators' priorities. This means up to 60 % of route performance targets are now set locally, linked to customer scorecards and represented by individual route on the national scorecard.

In addition, under-performance against the financial performance measure will reduce the performance related pay outturn on a sliding scale. If financial performance goes beyond twice the 'worse than' target set, then no performance related payment will be made.

The framework of the 2018/19 national scorecard is detailed on page 85 including measures and weightings. The national scorecard and its metrics have been approved by the DfT and SoS.

Directors' remuneration report continued

	Performance measure	Weighting	
Safety	Lost Time Injury Frequency Rate (LTIFR)	10 %	2.50 %
	Close Calls Raised (between 1 April 18 – 31 March 19)		1.00 %
	YTD Close Calls Closed % Within 90 Days		1.50 %
	Passenger train accident risk reduction measures		2.50 %
	Top 10 milestones to reduce level crossing risk		2.50 %
Financial performance	Financial Performance Measure (FPM) - Gross Renewals (£m)	10 %	2.50 %
	Financial Performance Measure (FPM) - Gross Profit and Loss (£m)		2.50 %
	Financial Performance Measure (FPM) - Gross Enhancements only (£m)		2.50 %
	Cash Compliance – Income & Expenditure		2.50 %
Investment	All Delivery Plan Enhancement Milestones (%)	5 %	5.00 %
Asset management	Composite Reliability Index (CRI)	5 %	2.50 %
	7 Key Volumes		2.50 %
Train performance	Train Performance	10 %	10.00 %
Locally driven customer measures	Locally Driven Customer Measures	10 %	10.00 %
Route performance	Anglia	50 %	7.6 %
	London North Eastern & East Midlands (LNE & EM)		6.9 %
	London North Western (LNW)		6.3 %
	Scotland		5.1 %
	South East		12.3 %
	Wales		2.1 %
	Wessex		4.1 %
	Western		3.9 %
	Freight and National Passenger Operator (FNPO)		1.8 %

Directors' report

The directors present their annual report and the audited accounts for the year ending 31 March 2018.

Disclosures regarding business performance and activities, future business developments and risk management are contained in the strategic report (pages 1 to 47) and corporate governance report (pages 48 to 85).

The company is limited by guarantee, having no share capital, so there are no share disclosures in the present report.

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 49 to 52.

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 58.

Branches

The company's subsidiary, Network Rail Consulting Limited, has established branches in Saudi Arabia and Dubai (UAE).

Contracts of significance

There were no contracts of significance subsisting during 2017/18 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 Rule LR 9.8.4R).

Political donations

It is Network Rail's policy not to make political donations or to incur political expenditure in the UK and the EU. No political donations were made and no political expenditure was incurred during the year (2016/17: £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 nothing to the income statement (2016/17: nil) 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 Note 2 on page 102.

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 126.

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 CFO's statement on pages 10 to 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 to 108 respectively.

No unaudited financial information relating to the financial year was published in a class 1 circular or in a prospectus during 2017/18.

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 74 to 85.

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 EU. 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.

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, to 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.

Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

The directors are responsible for the maintenance and integrity of the company's website.

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.

Directors' report continued

Each of the directors in office at the date of this report, whose names and functions are listed on pages 49 to 52, confirms 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 for 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 they ought to have taken in order to make them 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 to 47. The financial position of the group, its cash flows, liquidity position and borrowing facilities are described in the CFO's review on pages 10 to 13. 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 46 to 47 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 alongside the disposal of certain property assets,

Network Rail will draw upon to deliver its investment activities in the next 12 months. In addition Network Rail is able to achieve further efficiencies and deferral of costs as required to live within the funding available. Business plans and financial models are used to project cash flows and monitor financial risks and liquidity positions, forecast 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 mitigating actions realistically to 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 39 to 45, are paid particular attention to.

As a consequence, the directors believe that the group is well placed to manage its business risks.

After making enquiries, the directors have a reasonable expectation that the company and the group have adequate resources to continue in operational existence for the foreseeable future.

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.

The directors' report was approved by the Board on 27 June 2018 and is signed on its behalf by:

Stuart Kelly,
Group general counsel and company secretary
27 June 2018

Financial statements

Financial statements

Independent auditor's report to the members of Network Rail Limited

Opinion on financial statements

I have audited the financial statements of Network Rail Limited for the year ended 31 March 2018 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 and company statement of changes in equity; and
- the related notes, including the significant accounting policies.

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.

In my opinion the financial statements:
- give a true and fair view of the state of group's and the parent company's affairs as at 31 March 2018 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 conducted my audit in accordance with International Standards on Auditing (ISAs) (UK) and Practice Note 10 'Audit of Financial Statements of Public Sector Entities in the United Kingdom'. My responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of this report. Those standards require me and my staff to comply with the Financial Reporting Council's Revised Ethical Standard 2016. I am independent of Network Rail Limited in accordance with the ethical requirements that are relevant to my audit and the financial statements in the UK. My staff and I have fulfilled our other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

The regularity framework described in the table below has been applied:

Regularity Framework	
Governing legislation	Network Licence
HM Treasury and related authorities	Managing Public Money

Overview of my audit approach

Key audit matters

Key audit matters are those matters that, in my professional judgment, were of most significance in my audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that I identified.

I consider the following area of focus to be the area 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. This matter was addressed in the context of my audit of the financial statements as a whole, and in forming my opinion thereon, and I do not provide a separate opinion on this matter.

This is not the only risk identified by my audit but is the area that had the greatest effect on my overall audit strategy, allocation of resources and direction of effort. I have not, for example, included information relating to the work I have performed around the valuation of the group's retirement benefit obligation on the grounds that my work has not identified any matters to report.

The area of focus was 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 63 to 69.

Independent auditor's report continued

Key audit matter	Audit response, findings and conclusion
Property, plant and equipment – valuation of the rail network The group accounts for the rail 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. As explained in Note 12 to the financial statements, the independent regulator has to date determined the revenue requirement of the company using the traditional building block model of regulation. Under the model the group's future income was guaranteed based on the size of its Regulated Asset Base (RAB), which is added to as qualifying work is performed. This means that, in preparing previous sets of financial statements, the group has used the RAB itself as the starting point for its discounted cash flow valuation. On 24 March 2018 the independent regulator published its 'minded to' proposals for Control Period 6 which will commence on 1 April 2019. These break the link between the RAB and the determination of the group's future income. Management sought confirmation from the regulator that this link would be restored, and the traditional building block model of regulation restored, in the event that the rail network asset were transferred to a third party external to government. Accordingly, management's view is that a market participant would continue to value the rail network by reference to the RAB, and the valuation methodology applied by management remains unchanged. The value of the RAB at 31 March 2018 (after the effects of inflation, qualifying capital expenditure, and amortisation) is £66.8 billion. Management continues to acknowledge that, in pricing the asset, an investor would make an assessment of the deliverability of the current regulatory determination, and a discount of £1.3 billion has been applied to the RAB value in determining the fair value of the rail network asset at the reporting date. This discount is termed the Performance Variance Cash Flow Adjustment and, as in previous years, has been calculated based on management's own performance forecasts for the remainder of Control Period 5. A further adjustment of £1.3billion has been applied to reduce the reported fair value of the rail network asset to £64.1 billion (31 March 2017: £59.2 billion). This adjustment is equal to the value of assets separately recognised as Investment Property and Assets Held for Sale, and has historically been applied on the basis that the under the traditional regulatory model, the revenue requirement of the regulated entity is calculated net of the income the entity expects to generate from the property assets. The planned disposal of the majority of these assets gave rise to the need for management to specifically reconsider whether this adjustment remained appropriate.	**Addressing the key judgements underpinning the valuation methodology** I revisited the key judgements underpinning management's valuation of the rail network, taking into account the divergence of the regulator's draft determination for Control Period 6 from the traditional building block model of regulation. I assessed as reasonable management's judgement that, given the available information, a market participant would continue to price the rail network asset by reference to the RAB value. In forming my view I noted that: • in its draft determination for Control Period 6 (published on 12 June 2018) the regulator has confirmed that it would restore the link between the RAB and the revenue requirement of the regulated entity if the rail network asset were to transfer to a third party independent of government; and that • the RAB will continue to be maintained in full and be available to support a third party valuation of the rail network asset. In the context of my audit of financial statements that will be prepared for years ended 31 March 2019 and beyond, I have asked management to consider whether the Performance Variance Cash Flow Adjustment will remain a relevant concept in Control Period 6 or whether the divergence of the regulatory determination from the traditional regulatory model is such that a regulatory re-opener (i.e. a new determination and the start of a new control period) would be required in the event of the transfer of the rail network to a private owner. In respect of the deduction made to the fair value of the rail network asset for assets classified as held for sale, I noted that: • management expects the disposal of assets classified as held for sale to complete in autumn 2018; and that • the regulator will not adjust the RAB for these disposals if they complete before 1 April 2019. Together, these factors suggest that Network Rail may well benefit from the sale proceeds. Nevertheless, bearing in mind the principle that the asset is valued from the point of view of a third party, I assessed as reasonable management's judgement that, in the event of the transfer of the rail network to a private owner, the regulator would either withdraw consent for the sale or reduce their entitlement to future cash receipts. I therefore consider the deduction appropriate.

Independent auditor's report continued

I identified the valuation of the rail network asset as an area of significant risk for my audit due to the significance of the judgements underpinning the ongoing validity of management's valuation methodology, and due to the inherent uncertainties involved in the future performance forecasts which underpins management's Performance Variance Cash Flow Adjustment.

Addressing estimation uncertainty in respect of forecast performance against the regulatory determination

In all material areas of performance forecasting, 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.

I asked route business teams and enhancement programme delivery teams to present evidence of the basis on which they considered their anticipated final cost and 2018/19 volume forecasts to represent the most likely outcome. I analysed the information received, together with available data, and formed a view on the elements of the forecast carrying the highest levels of estimation uncertainty. I performed further work on these areas. I used the information and insights I gathered to evaluate the reasonableness of management's overarching assumptions that:

i. centrally held contingency and slippage provisions will be sufficient to offset emerging delivery and cost risks that have not been captured in the programmes' 2018/19 enhancement expenditure forecasts; and
ii. the regulator will not impose a financial penalty, or a reduction to the RAB, in relation to the level of renewals activity forecast.

I have assessed these assumptions as reasonable.

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.

Audited Area	Basis	Materiality
Account balances and transaction streams not connected with the valuation of the rail network asset and to support my opinion on regularity	Approximately 1 % of the group's total gross annual expenditure (operating and capital).	£100m
Overall Financial Statement Materiality (applying to all audited areas with the exception of those listed above)	Approximately 1 % of the rail network asset valuation	£500m

I consider the above benchmarks to be the principal considerations for the users of the accounts in 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 report. 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.

Independent auditor's report continued

I agreed with the audit and risk committee that I would report to it all uncorrected misstatements identified through my audit in excess of £1 million, as well as differences below this threshold that in my view warranted reporting on qualitative grounds.

Responsibilities of the Directors for the financial statements

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;
- such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.
- assessing the group's and the parent company's ability to continue as a going concern, disclosing, if applicable, matters relating to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the group or the parent company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

My responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (ISAs) (UK).

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. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs (UK), I exercise professional judgment and maintain professional scepticism throughout the audit. I also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the group's and parent company's internal control.
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the group's and parent company's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the entity to cease to continue as a going concern.
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

In addition, I am required to obtain evidence sufficient to give reasonable assurance that the income and expenditure reported in the financial statements have been applied to the purposes intended by Parliament and the financial transactions conform to the authorities which govern them.

Audit scope

The scope of my group audit was determined by obtaining an understanding of the group and its environment, including group-wide controls, and assessing the risks of material misstatement at the group level.

The Network Rail group has total assets of £68.9 billion. The majority of operations are within Network Rail Infrastructure Limited, whilst the obligations attaching to the legacy Debt Issuance Programme (used to finance the group until October 2014) reside in a separate legal entity, Network Rail Infrastructure Finance Plc. There are further small legal entities including a consultancy business and a company that manages the maintenance of non-owned stations. The Network Rail group is a consolidation of these legal entities.

I audited the full financial information of Network Rail Infrastructure Limited, and Network Rail Infrastructure Finance Plc, as well as the consolidation. This work covered substantially all of the group's assets and pre-tax results. In the course of my audit I:

- compared management's valuation of bonds issued by Network Rail Infrastructure Finance Plc under the legacy Debt Issuance with the results of my own independently developed model;
- performed detailed testing on a sample of derivative financial instruments, which are entered into by the group to mitigate

Independent auditor's report continued

interest rate and currency fluctuations on borrowings, and also tested the application of hedge accounting to these instruments;
- assessed the reasonableness of assumptions underpinning the valuation of the group's defined benefit pension liability, and assessed the effectiveness of the controls operated by the scheme administrator over the reporting of pension scheme assets;
- used data to inform the development of my own estimate of accrued capital expenditure at the balance sheet, and used this a point of comparison to assess the reasonableness of management's estimate.

These procedures, alongside others, gave me the evidence I needed for my opinion on the group financial statements as a whole.

Other Information

Directors are responsible for the other information. The other information comprises information included in the annual report, other than the parts of the directors' remuneration report described in that report as having been audited, the financial statements and my auditor's report thereon. My opinion on the financial statements does not cover the other information and I do not express any form of assurance conclusion thereon. In connection with my audit of the financial statements, my responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or my knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work I have performed, I conclude that there is a material misstatement of this other information, I am required to report that fact. I have nothing to report in this regard.

I am specifically required to address the following items and to report uncorrected material misstatements in the other information where I conclude that those items do not meet the following conditions:
- Fair, balanced and understandable: the statement given by the directors that the annual report and accounts taken as a whole are fair, balanced and understandable and provide the necessary information to enable users to assess the entity's performance, business model and strategy, is materially consistent with my knowledge obtained in the audit; or
- Audit and risk committee reporting: the section describing the work of the audit and risk committee appropriately address matters communicated by me to the audit committee.

I also have nothing to report in this regard.

Opinion on other matters prescribed by the Companies Act 2006

Directors' remuneration

In my opinion the part of the directors' remuneration report to be audited has been properly prepared in accordance with the Companies Act 2006.

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' Report for the financial year for which the financial statements are prepared is consistent with the financial statements and those reports have been prepared in accordance with applicable legal requirements.

In light of the knowledge and understanding of the group and the parent company and its environment obtained in the course of the audit, I have not identified any material misstatements in the Strategic Report or the Directors' Report.

The corporate governance statement

In my opinion, based on the work undertaken in the course of the audit:
- the information given in the corporate governance statement, in compliance with rules 7.2.5 and 7.2.6 in the Disclosure Rules and Transparency Rules sourcebook made by Financial Conduct Authority (the FCA Rules), 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 legal requirements.
- rules 7.2.2, 7.2.3 and 7.2.7 of the FCA Rules about the group and parent company's corporate governance code and practices and about its administrative, management and supervisory bodies and their committees 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, or returns adequate for my audit have not been received from branches not visited by my staff;
- the financial statements and the part of the Remuneration Report to be audited are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made;
- I have not received all of the information and explanations I require for my audit; or
- a corporate governance statement has not been prepared by the parent company.

I have nothing to report in respect of these matters.

Independent auditor's report continued

Conclusions relating to principal risks, going concern and viability statement

Under International Standards on Auditing (UK), 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 Group, 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.

Matthew Kay (Senior Statutory Auditor)
28 June 2018

For and on behalf of the
Comptroller and Auditor General (Statutory Auditor)
National Audit Office
157-197 Buckingham Palace Road
London, SW1W 9SP

Notes to the financial statements continued

Income statement

for the year ended 31 March 2018

	Note	2018 Group £m	2017 Group £m
Revenue	3	**6,580**	**6,259**
Net operating costs	4	**(4,731)**	**(4,263)**
Operating profit	5	**1,849**	**1,996**
Property revaluation movements and profits on disposal		**190**	**195**
Profit from operations		**2,039**	**2,191**
Finance income	7	**8**	**5**
Other gains and losses	8	**234**	**(21)**
Finance costs	9	**(2,233)**	**(1,692)**
Profit before tax		**48**	**483**
Tax*	10	**27**	**69**
Profit/(loss) after tax for the year		**75**	**552**

* The tax credit includes a credit of £nil (2017:£90m) due to enacted rate changes and a credit of £25m (2017: £35m) due to utilisation of previously derecognised tax losses.

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 (2017: £nil).

Statement of comprehensive income

for the year ended 31 March 2018

	Note	2018 Group £m	2017 Group £m
Profit for the year		**75**	**552**
Other comprehensive (expense)/income:			
Items that will not be reclassified to profit or loss			
Gain/(loss) on revaluation of the rail network	12	**675**	(1,075)
Actuarial gain/(loss) on defined benefit pension schemes	26	**221**	(799)
Deferred tax relating to components of other comprehensive income	22	**(152)**	329
Total items that will not be reclassified to profit or loss		**744**	**(1,545)**
Items that may be reclassified to profit or loss			
Gain/(loss) on movement in fair value of cash flow hedge derivatives		**29**	(116)
Reclassification of balances in the hedging reserve to the income statement		**170**	100
Total items that may be reclassified to profit or loss		**199**	**(16)**
Impact of change in tax rate to components of other comprehensive income	22	**-**	**19**
Other comprehensive income/(expense) for the year		**943**	**(1,542)**
Total comprehensive income/(expense) for the year		**1,018**	**(990)**

Notes to the financial statements continued

Statement of changes in equity

for the year ended 31 March 2018

Group	Revaluation reserve £m	Other reserve* £m	Hedging reserve £m	Retained earnings £m	Total equity £m
Balance at 31 March 2016	**708**	**249**	**(1,009)**	**6,798**	**6,746**
Profit for the year	-	-	-	552	552
Other comprehensive income					
Impact of change in tax rate	14	-	(10)	15	19
Revaluation of the rail network	(1,075)	-	-	-	(1,075)
Transfer of deemed cost depreciation from revaluation reserve	(6)	-	-	6	-
Decrease in deferred tax liability on the rail network	204	-	-	(1)	203
Actuarial loss on defined benefit pension schemes	-	-	-	(799)	(799)
Deferred tax on actuarial loss	-	-	-	116	116
Decrease in fair value of hedging derivatives	-	-	(116)	-	(116)
Deferred taxation on all hedging reserve movements/retained earnings	-	-	10	-	10
Transfer between reserves - deferred tax	344	-	-	(344)	-
Transfer between reserves	-	-	(18)	18	-
Reclassification of balances in hedging reserve to the income statement	**-**	-	**100**	**-**	**100**
Balance at 31 March 2017	**189**	**249**	**(1,043)**	**6,361**	**5,756**

Balance at 31 March 2017	**189**	**249**	**(1,043)**	**6,361**	**5,756**
Profit for the year	-	-	-	75	75
Other comprehensive income					
Revaluation of the rail network	675	-	-	-	675
Transfer of deemed cost depreciation from revaluation reserve	3	-	-	(3)	-
Increase in deferred tax liability on the rail network	(116)	-	-	1	(115)
Actuarial gain on defined benefit pension schemes	-	-	-	221	221
Deferred tax on actuarial gain	-	-	-	(37)	(37)
Increase in fair value of hedging derivatives	-	-	29	-	29
Reclassification of balances in hedging reserve to the income statement	**-**	-	**170**	**-**	**170**
Total comprehensive income	**562**	**-**	**199**	**257**	**1,018**
Balance at 31 March 2018	**751**	**249**	**(844)**	**6,618**	**6,774**

* Other reserves of £249m (2017 £249m) include the vesting reserve on privatisation.

There has been no movement in the current or prior year affecting the statement of changes in equity for the company.

Balance sheets
at 31 March 2018

	Note	2018 Group £m	2017 (restated) Group £m	2018 Company £m	2017 Company £m
Assets					
Non-current assets					
Intangible assets	11	**64**	**65**	–	–
Property, plant and equipment - the rail network*	12	**64,142**	**59,205**	–	–
Investment property	13	**206**	**1,231**	–	–
Derivative financial instruments	20	**269**	**864**	–	–
Other receivables		**-**	**37**	–	–
Interest in joint venture	14	**35**	**33**		
		64,716	**61,435**		
Current assets					
Assets held for sale	15	**1,134**	-	–	–
Inventories	16	**215**	191	–	–
Trade and other receivables	17	1,595	1,462	–	–
Current tax assets		-	1	–	–
Derivative financial instruments	20	**227**	238	–	–
Cash and cash equivalents		**973**	942	–	–
		4,144	2,834	–	–
Total assets		**68,860**	**64,269**		
Liabilities					
Current liabilities					
Trade and other payables	18	**(2,840)**	**(4,222)**		
Borrowings and overdrafts	19	**(4,820)**	**(3,396)**	–	–
Derivative financial instruments	20	**(20)**	**(1)**	–	–
Short-term provisions	21	**(81)**	**(64)**	–	–
		(7,761)	**(7,683)**		
Net current liabilities		**(3,617)**	**(4,849)**	–	–
Non-current liabilities					
Borrowings	19	**(48,113)**	**(44,166)**	–	–
Derivative financial instruments	20	**(1,147)**	**(1,528)**	–	–
Other payables*	18	**(246)**	**(440)**	–	–
Retirement benefit obligation	26	**(2,311)**	**(2,311)**	–	–
Deferred tax liabilities	22	**(2,508)**	**(2,385)**	–	–
		(54,325)	**(50,830)**	–	–
Total liabilities		**(62,086)**	**(58,513)**	–	–
Net assets		**6,774**	**5,756**	–	–
Equity					
Revaluation reserve		**751**	**189**	–	–
Other reserve		**249**	**249**	–	–
Hedging reserve		**(844)**	**(1,043)**	–	–
Retained earnings		**6,618**	**6,361**	–	–
Total shareholder's funds and equity attributable to equity holders of the parent company		**6,774**	**5,756**	-	-

* Prior year comparatives have been restated for these balances. See change in accounting treatment policies on page 100 for more details.

The financial statements and accompanying disclosure notes on pages 95 to 138 were approved by the board of directors and authorised for issue on 27 June 2018.

They were signed on its behalf by:

Mark Carne
Chief executive

Jeremy Westlake
Chief financial officer

Company registration number: 4402220

Notes to the financial statements continued

Statement of cash flows

for the year ended 31 March 2018

	Note	2018 Group £m	2017 Group £m	2018 Company £m	2017 Company £m
Cash flows from operating activities					
Cash generated from operations	23	3,549	3,412	–	–
Interest paid*		(1,455)	(1,173)	–	–
Income tax paid		(1)	(2)	–	–
Net cash generated from operating activities		2,093	2,237	–	–
Investing activities					
Interest received		8	5	–	–
Purchases of property, plant and equipment		(6,547)	(6,837)	–	–
Proceeds on disposal of property		81	91	–	–
Capital grants received		791	436	–	–
Net cash (outflows)/inflows from joint ventures		(2)	2	–	–
Other capital expenditure**		(1,268)	–	–	–
Net cash used in investing activities		(6,937)	(6,303)	–	–
Financing activities					
Repayments of borrowings	19	(1,541)	(2,393)	–	–
New loans raised	19	6,713	6,094	–	–
Increase in collateral posted	19	(125)	194	–	–
Decrease/(increase) in collateral held	19	(172)	(71)		
Cash flow on settlement of derivatives	19	–	(7)	–	–
Net cash generated from financing activities		4,875	3,817	–	–
Net increase/(decrease) in cash and cash equivalents		31	(249)	–	–
Cash and cash equivalents at beginning of the year		942	1,191	–	–
Cash and cash equivalents at end of the year		973	942	–	–

* Balance includes the net interest on derivative financial instruments

** Cash flow on repayment of Crossrail project funding made available during the course of construction

Notes to the financial statements
for the year ended 31 March 2018

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. Network Rail Limited is an arm's length body of the Department for Transport.

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 4 to 7.

Network Rail is organised as a single operating segment for financial reporting purposes.

The Secretary of State is the sole member of the Company.

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 rail 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.

Change in presentation of government grants

Government grants have previously been recognised as a deferred income within non-current other payables. During the financial year Network Rail adopted the alternative method of presenting government grants by deducting grants in arriving at the carrying value of plant, property and equipment, as permitted by IAS20. Due to changes in Network Rail's funding arrangements management deemed the alternative method of netting off capital grants with the cost of associated property, plant and equipment as a more reliable and transparent method going forward. In preparing the consolidated financial statements, comparative amounts have been restated for the adoption of the revised accounting treatment.
The financial impact of the change in presentation is set out in note 12 and note 18.

The principal accounting policies adopted by the directors are set out below. The policies have been consistently applied to the years presented.

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 2017; except for the change in accounting policy noted above.

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 potentially material impact on the group:

i) IFRS16 '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. The standard is effective for accounting periods starting after 1 January 2019 and will be effective in Network Rail's 2019-2020 annual accounts. The standard will require lessees to account for all leases on their balance sheets, including those which had previously been treated as operating leases and accounted for in the Income Statement as an "in-year" expense. Had this standard been adopted in 2017-18 Network Rail's assets and liabilities would have been less than £200m higher and profit for the year less than £10m lower.

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 potentially material impact on the group but have not yet been assessed by the group:

i) IFRS 17 'Insurance Contracts .' This is a new standard released in May 2017 and applicable to annual periods from 1 January 2021.

The following accounting standards have not been early adopted by the group but will become effective in future years and are not considered to have a material impact on the group:

i) IFRS 9 'Financial Instruments'. This is a new standard that addresses the classification, measurement and recognition of financial assets and liabilities. It is effective for accounting periods starting after 1 January 2018 and will be effective in Network Rail's 2018-2019 annual accounts. Network Rail has assessed the impact on financial assets and with the exception of derivatives held at fair value, they will continue to be held at amortised cost as they are held-to-collect rather than traded assets.

Notes to the financial statements continued

2. Significant accounting policies continued

With regard to hedge accounting almost all the hedged events have now occurred and there will be no new hedging programme. It is therefore proposed to continue using the IAS 39 model for the final periods of hedge accounting.

As financial assets, the receivables disclosed in Network Rail accounts will be subject to the new "Expected Credit Loss " model. Network Rail's exposure to credit risk is limited largely to the property rental income and that had the new standard been adopted in 2017-18 then Network Rail estimates that profit would be less than £1m lower than currently reported. See trade and other receivables note on page 116 for more details.

ii) IFRS 15 'Revenue from Contracts with Customers' establishes a comprehensive framework for determining when revenue should be recognised and how it should be measured. It is effective for accounting periods starting after 1 January 2018 and will be effective in Network Rails 2018-2019 annual accounts. The grant income that Network Rail receives does not fall under IFRS 15; as such we will continue to recognise grant income in line with IAS 20 Accounting for Government Grants. Revenue from train operators has been assessed using the five-step model prescribed by the IFRS 15 and deemed that Network Rail's revenue recognition will be as it is under existing accounting standard. Network Rail believes its current accounting approach to revenue is materially in line with IFRS15 and any minor adjustment required will result in a less than £5m change in reported profit.

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.

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 4 to 6, and 'Business unit summaries' on pages 14 to 34. 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 to 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. The board considers the likely effectiveness of such actions through regular monitoring and review of risk management and internal control systems. Further details are set out in the Viability Statement on pages 46 and 47.

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 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 deducted from the fair value of assets which the grant funding relates to, and released to the income statement over the estimated useful economic life of the rail network. Revenue grants earned for the management and provision of rail network assets are credited to the income statement in the period to which they relate.

2. Significant accounting policies continued

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.

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 per cent of the total for each of the schemes. Further details on the retirement benefit schemes are provided in note 26.

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.

Notes to the financial statements continued

2. Significant accounting policies continued

Tax

The tax expense represents the sum of the current tax 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 tax is 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 tax is 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 rail network

The group has one class of property, plant and equipment, being the rail 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 rail 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 rail network using an income approach. The income approach assesses the discounted future cash flows that are expected to be generated by the rail 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 rail 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 40 years (2017: 40 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.

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.

Assets held for sale

Non-current assets are classified as held for sale if it is highly probable that they will be recovered primarily through sale or distribution rather than through continuing use.

Immediately before classification as held for sale the assets are re-measured in accordance with the accounting policies for the asset category. Subsequently, the assets are held at the lower of carrying value and fair value less costs to sell. Any impairment loss on a disposal group is recognised immediately in the income statement. For the assets held for sale in these financial statements Network Rail has opted to use the valuation as at 30 September 2017 as a proxy for the value of the assets immediately before classification date.

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 18, 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.

2. Significant accounting policies continued

Critical accounting judgements and key sources of uncertainty

(i) Property, plant and equipment – the rail network: the estimate of the fair value of the rail 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.

The most significant judgement underpinning the valuation is that the regulatory framework and associated cash flows remain sufficiently stable and robust to form the basis of a third party valuation. Management assess that based on the current regulatory environment, an investor could reasonably expect to recover the RAB value through the revenue deriving from future amortisation allowances and the regulatory return thereon. In its assessment management has considered the amendments to the regulatory framework that are set out in the regulator's draft determination for Control Period 6 (2019-2024), and noted that although the regulated asset base will cease to be a building block in the determination of the company's revenue requirement, the link between income and the regulated asset base would be reinstated in the event that the rail network asset were transferred to a private owner.

Management have also considered whether the portfolio of assets held for sale should continue to be deducted against the RAB in arriving at the fair value of the rail network, and based on an assessment of likely regulatory action in the event of a sale, have concluded that this remains appropriate. Further detail on this and other key judgements applied in the valuation are set out in Note 12.

The key source of estimation uncertainty within the valuation is the assessment of future performance against the regulatory determination which is discussed in more detail in Note 12.

Whilst not affecting the fair value of the asset recognised at the balance sheet date, management's assessment of the remaining life of the asset affects the depreciation that is charged on the asset, and is also an area of estimation uncertainty. IAS 16 requires that management regularly review asset lives on at least an annual basis and that that depreciation is charged on a systematic basis that reflects the way the asset is consumed. In September 2016 Network Rail produced a detailed and rigorous depreciated replacement cost (DRC) valuation of the rail network for inclusion in DfT's group accounts. In preparing these financial statements management reviewed the weighted average remaining asset lives as produced in the DRC valuation and concluded that it is still appropriate to use 40 years as the weighted average remaining life.

(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 12 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. For investment property transferred to assets held for sale this is also the inherited method of valuation. The transfer occurred on 24 November 2017; the valuation as at this date is regarded as the carrying value of these assets and the frozen ceiling valuation for assets held for sale. Further details are set out in Note 13.

(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. 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.

3. Revenue

	2018 Group £m	2017 Group £m
Grant income	**4,480**	**4,380**
Franchised network access	**1,707**	**1,505**
Freight revenue	**53**	**53**
Property rental income	**306**	**293**
Other income	**34**	**28**
Revenue	**6,580**	**6,259**

The effect of the performance regimes was a net loss of £232m (2017: net loss of £180m) which led to a reduction in revenue of the respective amount.

Notes to the financial statements continued

Property rental income relating to assets held for sale on the balance sheet was £81m.

4. Net operating costs

	2018 Group £m	2017 Group £m
Employee costs (see Note 6)	2,419	2,160
Own costs capitalised	(998)	(985)
Other external charges (including infrastructure maintenance costs)	2,094	1,968
Other operating income and recoveries	(323)	(307)
Net operating costs before depreciation and amortisation	**3,192**	**2,836**
Depreciation (see Note 12)	1,638	1,515
Capital grants amortised	(99)	(88)
Net operating costs	**4,731**	**4,263**

Other external charges relating to assets held for sale on the balance sheet was £17m.

5. Profit from operations

Total profit from operations is stated after charging/(crediting):

	2018 Group £m	2017 Group £m
Amortisation of intangible assets	1	1
Profit on sale of properties	(75)	(64)
Increase in the fair value of investment properties	(117)	(131)
Cost of inventories recognised as an expense	192	218
Write downs of inventories recognised as an expense	1	(2)

Amounts payable to auditors		
Fees payable to the company's auditors for the audit of the company and consolidated financial statements	0.38	0.36
Fees payable to the company's auditors for audit related services		
– The audit of the company's subsidiaries	0.05	0.04
– Regulatory accounts audit and interim review	0.08	0.08
Total amounts payable to auditors	0.51	0.48

For financial years ended 31 March 2018 and 2017 no fees were payable to the company's auditors in respect of non-audit related services. In addition to the audit fee information given in the table the group pays £0.11m for the audit of subsidiaries that are not performed by the group auditor.

6. Employee costs

The monthly average number of employees (including executive directors) was:

	2018 Group Number	2017 Group Number
Management and operation of the railway	**39,370**	**38,529**

	2018 Group £m	2017 Group £m
Their aggregate remuneration comprised:		
Wages and salaries	1,929	1,803
Social security costs	215	203
Defined contribution pension costs (see Note 26)	19	18
Defined benefit pension costs – current service costs (see Note 26)	256	178
Defined benefit pension costs – past service costs (see Note 26)	-	(42)

Total employee costs	**2,419**	**2,160**

In the years ended 31 March 2018 and 31 March 2017 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 74 to 85.

7. Finance income

	2018 Group £m	2017 Group £m
Interest receivable on investments and deposits	8	5
	8	5

Finance income earned on financial assets analysed by category of asset, is as follows:

	2018 Group £m	2017 Group £m
Loans and receivables (including cash and bank balances)	8	5
	8	5

8. Other gains and losses

	2018 Group £m	2017 Group £m
Net ineffectiveness arising from cash flow hedge accounting	7	(52)
Fair value (loss)/gain on fair value hedges	(445)	164
Fair value gain/(loss) on carrying value of fair value hedged debt	449	(171)
Gain/(loss) arising from fair value hedge accounting	4	(7)
Net increase/(decrease) in fair value of non-hedge accounted debt	21	(28)
Gain on derivatives not hedge accounted	202	66
Gain arising from non-hedge accounting	223	38
Total other gains/(losses)	**234**	**(21)**

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 18.

9. Finance costs

	2018 Group £m	2017 Group £m
Interest on bank loans and overdrafts	22	16
Interest on loan issued by Department of Transport	551	417
Interest on bonds issued under the Debt Issuance Programme	1,331	991
Interest on derivative instruments	164	75
Defined benefit pension interest cost	57	45
Debt Issuance Programme financial indemnity fee	281	299
Other interest	1	3
Total borrowing costs	**2,407**	**1,846**
Less: capitalised interest	(174)	(154)
Total finance costs	**2,233**	**1,692**

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 4.5 per cent (2017: 4.4 per cent).

Notes to the financial statements continued

10. Tax

	2018 Group £m	2017 Group £m
Current tax:		
Corporation tax charge	-	-
Adjustment in respect of prior years	2	6
Total current tax charge	**2**	**6**
Deferred tax:		
Current year (credit)/charge	(7)	92
Effect of rate change	-	(90)
Adjustments in respect of prior years	(22)	(77)
Total deferred tax credit	**(29)**	**(75)**
Total tax credit	**(27)**	**(69)**

The tax credit for the year can be reconciled to the profit per the income statement as follows:

	2018 Group £m	2017 Group £m
Profit before tax	48	483
Tax at the UK corporation tax rate of 19 per cent (2016: 20 per cent)	9	97
Adjustments in respect of prior years	(21)	(71)
Effect of rate change	-	(90)
Income not subject to tax	10	28
De-recognition of deferred tax assets - current year	-	1
Utilisation of tax losses previously derecognised	(25)	(34)
Tax credit for the year	**(27)**	**(69)**

Under IAS12 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 2017, it remains improbable that Network Rail will return to a level of taxable profits that will allow for recognition of a deferred tax asset relating to the trading losses carried forward. Additionally, whilst taxable income does not exceed allowable deductions in the year, Network Rail claims only the capital allowances sufficient to make the necessary claims for group relief and available tax credits.

Deferred tax at 31 March 2018 is calculated at a rate of 17 per cent (2017: 17 per cent) based on tax rate expected to prevail based on legislative enactments at the point temporary differences resolve.

UK corporation tax is calculated at 19 per cent (2017: 20 per cent). Further reductions to the UK tax rate have been enacted which reduced the rate to 19 % with effect from 1 April 2017 and to 17 per cent by 1 April 2020.

The Group has £36.9m (2017: £36.9m) of surplus advanced corporation tax carried forward. No deferred tax asset has been provided in respect of this amount.

11. Intangible assets

Group	Concession £m
Cost	
At 1 April 2016, 31 March 2017 and 31 March 2018	78
Accumulated amortisation	
At 31 March 2016	**(12)**
Charge for the year	(1)
At 31 March 2017	**(13)**
Charge for the year	(1)
At 31 March 2018	**(14)**
Carrying amount	
At 31 March 2018	**64**
At 31 March 2017	**65**

The intangible assets above relate to seperable economic rights associated with 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 rail network

	Group assets £m	Group capital grants £m	Group carrying value £m
Valuation			
At 31 March 2016	**58,532**	**(3,168)**	**55,364**
Additions	6,788	(437)	6,351
(Depreciation charge)/grant amortisation for the year	(1,515)	80	(1,435)
Revaluation in the year	(1,075)	-	(1,075)
At 31 March 2017	**62,730**	**(3,525)**	**59,205**
Additions	6,634	(822)	5,812
Transfer to investment properties	(3)	-	(3)
(Depreciation charge)/grant amortisation for the year	(1,638)	91	(1,547)
Revaluation in the year	675	-	675
At 31 March 2018	**68,398**	**(4,256)**	**64,142**

Given the economic and physical interdependency of the assets comprising the rail network, the company has concluded that the rail network is considered as a single class of asset. The rail 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 rail network using an income approach. Under this approach the cash flows that the network licence holder expects to generate from the rail 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.

To date, the independent rail regulator, the Office of Rail and Road (ORR), has determined the revenue requirement of the network licence holder using the building block model of regulation. Under this model the network licence holder's annual income (received in the form of the network grant and track access charges) has comprised:

a) The regulator's assessment of the efficient costs of operating and maintaining the network

b) 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 rail network over many years).

c) 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 rail network continued

In its draft determination for Control Period 6 (2019-2024), published on 12 June 2018, ORR explains that from 1 April 2019 the RAB will no longer be a building block in the determination of the company's revenue requirement, but that the previous method of revenue determination would be restored is the rail network asset were to be transferred to a private owner. IFRS 13 Fair Value Measurement requires management to assess fair value from the perspective of a theoretical market participant, rather than on the basis of the value-in-use. Accordingly, the amendments made to the regulatory framework for Control Period 6, which reflect the proximity of Network Rail to the public sector and which would not apply to a market participant, are not relevant to the valuation.

Future cash flows under (a) are assumed to be equivalent over time to the network licence holder's actual costs of operation and maintenance, on the basis that the Regulator aims to set targets which are ambitious but achievable. These therefore have no net impact on forecast future cash flows, or the valuations. The allowed return (c) is based on a cost of capital which would be offset in a discounted future cash flows model (see Discount rate below). The economic rights inherent in ownership of the regulated rail network asset are therefore vested primarily in the value of the RAB, which will be recovered through future regulated income as the RAB is amortised (b).

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 over the remainder of the current control period. No adjustment is made in respect of future control periods on the expectation of the Regulator setting, over the long term, ambitious but achievable determination. See forecast performance variation below.

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 companies 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.

Third party funding

Additions to the railway network funded by capital grant, rather than via the RAB funding mechanism, are included in the valuation at cost. The carrying value of property, plant and equipment is calculated after netting off associated grant funding received or receivable.

Depreciation

The depreciation charge for any year is calculated using the average carrying value for the year and the estimated remaining weighted average useful economic life of the rail network. The remaining weighted average useful economic life of the rail network was calculated using the engineering assessment of serviceable economic lives of the major categories that comprise the rail network. The estimated remaining weighted average useful economic life of the network is currently 40 years (2017: 40 years).

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 determined that for CP5 it would not provide Network Rail with a full market cost of capital. The ORR believed 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 confirmed that a conventionally funded market participant would receive an allowed return equal to the full market cost of capital. This has been reiterated in their final determination for CP6.

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 rail 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 rail 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.

12. Property, plant and equipment – the rail network continued

The following table shows the effect of changes in the market discount rate on the carrying value of the rail 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 rail 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 2018	31 March 2017
Change in fair value	25	**£173m**	**£318m**
	50	**£346m**	**£635m**
Percentage change in fair value	25	**0.3%**	**0.5%**
	50	**0.5%**	**1.0%**
Change in annual depreciation charge	25	**£6m**	**£11m**
	50	**£12m**	**£21m**

Forecast performance variations

In assessing the value of the rail 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.

Cost outturns on capital work (renewals and enhancements) have an impact on future cash flows under the regulatory framework, since only a fraction of spend in excess of regulated cost targets can be added to the RAB. (There is also a similar incentive for out-performance.) Enhancement performance is measured against the Hendy baseline of cost re-forecasts which followed the 2016 Hendy review into CP5 projects. This is the benchmark that a third party would use in assessing the valuation of the rail network.

At 31 March 2018 the valuation included £1,326m (2017: £1,308m) of projected financial underperformance, which is expected to crystallise in the income statement or result in the ineligibility of additions to the RAB primarily in 2018-19.

The most significant areas of projected underperformance are renewals (£243m), operating expenditure (£645m), income (£464m) and enhancements (£37m) offset by out-performance on financing costs (£63m) as a result of favourable interest rate movements, after allowing for the impact of inflation increases on RPI-linked bonds.

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 per cent increase in the Anticipated Final Cost of enhancement projects would result in additional financial underperformance of £10m, and a one per cent increase in the unit cost of renewals would result in additional financial underperformance of £8m.

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. As noted above, the ORR has made it clear in its final determination for Control Period 6 that the amendments made to the regulatory framework for CP6 reflect the proximity of Network Rail to the public sector and the amendments would not apply to a market participant.

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 regulator would most probably take action to prevent a market participant from achieving an equity gain through selling the assets classified as held for sale at 31 March 2018. This assumption is based on the draft proposal of the final determination for Control Period 6 for non-core asset sales to create the presumption of a reduction of the Regulated Asset Base.

Notes to the financial statements continued

12. Property, plant and equipment – the rail network continued

At 31 March 2018 the group had entered into contractual commitments in respect of capital expenditure amounting to £2,810m (2017: £3,505m).

Change in presentation of government grants

The change in Network Rail's method of presenting government grants (see page 100) in the Balance Sheet, has resulted in the amount previously presented as deferred income now being shown as a deduction in calculating the carrying value of plant, property and equipment. Reconciliation between the old and new method of presentation is as follows:

	2018 Group £m	2017 Group £m	2016 Group £m
Balance under old method	**68,398**	**62,730**	**58,532**
Add: capital grants	**(4,256)**	**(3,525)**	**(3,168)**
Revised balance under new method	**64,142**	**59,205**	**55,364**

13. Investment property

	Group £m
Fair value	
At 31 March 2016	**1,109**
Additions	18
Disposals	(27)
Increase in fair value in the year	131
At 31 March 2017	**1,231**
Additions	4
Disposals	(6)
Transfer from property, plant and equipment	3
Transfer to assets held for sale	(1,142)
Increase in fair value in the year	116
At 31 March 2018	**206**

The market values of the group's investment properties at 31 March 2018 have been arrived at on the basis of a valuation carried out at that date in conjunction with Jones Lang LaSalle, external valuers not connected with the group. Network Rail Property undertake a detailed review of the investment property portfolio to allocate the portfolio to beacons which represent particular groups of property sharing the same characteristics. Network Rail Property apply yields provided by Jones Lang LaSalle to these beacon categories. Jones Lang LaSalle will also value specific properties, as instructed by Network Rail Property.

Management are satisfied that Jones Lang LaSalle hold a recognised and relevant professional qualification, and have had recent experience in the location and category of the investment property being valued. 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 6 one-off individual properties (2017: 17), amounting to 35 per cent (2017: 12 per cent) of the total valuation. The balance of the estate was valued under the Beacon method by splitting the portfolio into 13 homogeneous classes (2017: 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 assets categorised at the year end as investment property, all of which is leased out under operating leases, amounted to £15m (2017: £90m). Direct operating expenses arising on the investment properties in the year amounted to £3m (2017: £6m). Rental income and direct operating expenses on assets now classified as held for sale is disclosed at note 15.

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.

During the year £1,142m of investment property was transferred to assets held for sale as part of Network Rail's asset divestment program. See key initiatives section on page 34 for more details.

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

* 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

	2018 Group £m	2017 Group £m
At 1 April	33	35
Investment in joint ventures	2	2
Share of profit/(loss)	–	(4)
At 31 March	35	33

15. Assets held for sale

In November 2017 Network Rail received clearance from Her Majesty's Government to begin marketing the sale of a substantial part of its investment property portfolio. On 24 November 2017, the assets were transferred from investment property to assets held for sale at their carrying value, as the criteria for reclassification had been met. The value at which the assets were transferred represents the valuation at this date on the measurement basis described in Note 13. See key initiatives section on page 34 for more details.. Network Rail anticipates to dispose of the assets held for sale in Auctumn 2018.

	2018 Group £m	2017 Group £m
At 1 April	–	–
Transfer from investment property	1,142	–
Transfer from trade and other payables	(11)	–
Additions	3	–
At 31 March	1,134	–

The transfer from trade and other payables relate to tenant bonds which will form part of the disposal of the investment properties.

The property rental income earned by the group from its assets held for sale, all of which is leased out under operating leases, amounted to £81m. Direct operating expenses arising on the assets held for sale in the year amounted to £5m.

16. Inventories

	2018 Group £m	2017 Group £m
Raw materials and consumables	215	191

As at 31 March 2018 a provision of £24m was held in respect of inventories (2017: £23m).

17. Trade and other receivables

Non-current assets: other receivables	2018 Group £m	2017 Group £m	2018 Company £m	2017 Company £m
Regulatory income receivable	–	37	–	–

Current assets: trade and other receivables	2018 Group £m	2017 Group £m	2018 Company £m	2017 Company £m
Trade receivables	340	298	–	–
Capital grants receivable	163	132	–	–
Other taxation and social security	102	130	–	–
Collateral receivable	750	625	–	–
Other receivables	55	66		
Prepayments and accrued income	185	211	–	–
	1,595	1,462	–	–

Trade receivables include an allowance for estimated irrecoverable amounts from the supply of services of £19m (2017: £14m). This allowance has been made by reference to past default experience. Average debtor days were 55 days (2017: 63 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 per cent 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 £92m (2017: £37m) 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 13 days (2017: 25 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:

	2018 Group £m	2017 Group £m	2018 Company £m	2017 Company £m
Past due by 1 – 28 days	79*	16	–	–
Past due by 29 – 56 days	7	12	–	–
Past due by 57 – 84 days	2	3	–	–
Past due by 85 – 180 days	4	6	–	–
	92	37	–	–

*£67m past due by 1-28 days relates to amounts owed by the Department of Transport. This amount was settled 18 days after the year end.

Trade receivables of £10m (2017: £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

Current liabilities: trade and other payables	2018 Group £m	2017 Group £m	2018 Company £m	2017 Company £m
Trade payables	556	614	–	–
Collateral held from banking counterparties	87	259	–	–
Payments received on account	21	34	–	–
Other payables	306	1,601	–	–
Other interest accruals	279	261	–	–
Other accruals and deferred income	1,591	1,453	–	–
	2,840	4,222	–	–

Other payables decreased significantly during the year due to £1,270m relating to Crossrail funding being settled during the year.

The average credit period taken for trade purchases is 28 days (2017: 30 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.

Non-current liabilities: other payables	2018 Group £m	2017 Group £m	2018 Company £m	2017 Company £m
Other accruals and deferred income	109	140	–	–
Other payables	137	300	–	–
	246	440	–	–

Change in presentation of government grants

The change in Network Rail's method of presenting government grants (see page 100) in the Balance Sheet, has resulted in the presentation of non-current other accruals and deferred income being represented as a deduction in calculating the carrying value of property, plant and equipment (see note 12). Reconciliation between the old and new method of presentation is as follows:

	2018 Group £m	2017 Group £m	2016 Group £m	2018 Company £m	2017 Company £m	2016 Company £m
Balance under old method	4,365	3,665	3,300	–	–	–
Less: capital grants	(4,256)	(3,525)	(3,168)	–	–	–
Revised balance under new method	109	140	132	–	–	–

19. Borrowings

	2018 Group £m	2017 Group £m	2018 Company £m	2017 Company £m
Net borrowings by instrument:				
Cash and cash equivalents*	**973**	942		–
Collateral placed with counterparties	**750**	625		–
Collateral received from counterparties	**(87)**	(259)		–
Bank loans	**(481)**	(479)		–
Bonds issued under the Debt Issuance Programme (less unamortised premium, discount and fees)	**(25,702)**	(27,046)		–
Borrowings issued by the Department for Transport	**(26,750)**	(20,037)		–
	(51,297)	(46,254)		–
Movement in net borrowings:				
At the beginning of the year	**(46,254)**	(41,606)		–
(Decrease)/increase in cash and cash equivalents	**31**	(249)		–
Proceeds from borrowings	**(6,713)**	(6,094)		–
Repayments of borrowings	**1,541**	2,393		–
Capital accretion	**(715)**	(449)		–
Exchange differences	**15**	42		–
Movement in collateral placed with counterparties	**125**	(194)		–
Movement in collateral received from counterparties	**172**	71		–
Fair value and other movements	**501**	(168)		–
At the end of the year	**(51,297)**	(46,254)		–
Net borrowings are reconciled to the balance sheet as set out below:				
Cash and cash equivalents*	**973**	942		–
Collateral placed with counterparties (included in trade and other receivables)	**750**	625		–
Collateral received from counterparties (included in trade and other payables)	**(87)**	(259)		–
Borrowings included in current liabilities	**(4,820)**	(3,396)		–
Borrowings included in non-current liabilities	**(48,113)**	(44,166)		–
	(51,297)	(46,254)		–

* Includes collateral received from derivative counterparties of £87m (2017: £259m).

Notes to the financial statements continued

19. Borrowings continued

	2018 Group £m	2017 Group £m	2018 Company £m	2017 Company £m
1.085% sterling index linked bond due 2052	134	129	–	–
0% sterling index linked bond due 2052	144	137	–	–
1.003% sterling index linked bond due 2051	25	24	–	–
0.53% sterling index linked bond due 2051	129	124	–	–
0.517% sterling index linked bond due 2051	130	125	–	–
0% sterling index linked bond due 2051	144	138	–	–
0.678% sterling index linked bond due 2048	127	122	–	–
1.125% sterling index linked bond due 2047	5,559	5,366	–	–
0% sterling index linked bond due 2047	91	87	–	–
1.1335% sterling index linked bond due 2045	52	50	–	–
1.5646% sterling index linked bond due 2044	290	279	–	–
1.1565% sterling index linked bond due 2043	58	56	–	–
1.1795% sterling index linked bond due 2041	71	69	–	–
1.2219% sterling index linked bond due 2040	285	275	–	–
1.2025% sterling index linked bond due 2039	78	75	–	–
4.6535% sterling bond due 2038	100	100	–	–
1.375% sterling index linked bond due 2037	5,447	5,247	–	–
4.75% sterling bond due 2035	1,231	1,230	–	–
1.6492% sterling index linked bond due 2035	433	418	–	–
4.375% sterling bond due 2030	872	871	–	–
1.75% sterling index linked bond due 2027	5,328	5,157	–	–
4.615% Norwegian krone bond due 2026*	53	56	–	–
4.57% Norwegian krone bond due 2026*	15	16	–	–
1.9618% sterling index linked bond due 2025	366	353	–	–
4.75% sterling bond due 2024	740	738	–	–
3 % sterling bond due 2023	398	398		
2.76% Swiss franc bond due 2021	224	238	–	–
2.315% Japanese yen bond due 2021*	71	78	–	–
2.28% Japanese yen bond due 2021*	71	77	–	–
2.15% Japanese yen bond due 2021*	72	78	–	–
4.625% sterling bond due 2020	999	999	–	–
1.75 % US dollar bond due 2019**	717	797	–	–
0.875 % US dollar bond due 2018**	1,248	1,394	–	–
0.75 % US dollar bond due 2017**	-	996	–	–
1 % sterling bond due 2017	-	749	–	–
	25,702	27,046	–	–

* 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.

19. Borrowings continued

Bank loans are analysed as follows:

	2018 Group £m	2017 Group £m	2018 Company £m	2017 Company £m
Index-linked European Investment Bank due 2036 (£243m) and 2037 (£241m)	**484**	**467**	**–**	**–**
Barclays Bank due 2017 repayable by instalments	**(3)**	**12**	**–**	**–**
	481	**479**	**–**	**–**

At 31 March 2018 and 2017 the group had the following undrawn committed borrowing facilities:

	2018 Drawn £m	2018 Undrawn £m	2018 Total £m	2017 Drawn £m	2017 Undrawn £m	2017 Total £m
Department for Transport loan facility	28,400	4,110	30,875	20,050	10,825	30,875
	28,400	4,110	30,875	20,050	10,825	30,875

Undrawn committed facilities expire as follows:

	2018 Group £m	2017 Group £m
Within one year	**4,110**	**–**
Within two to five years	**–**	**10,825**
After five years	**–**	**–**
	4,110	**10,825**

On 4 July 2014 the Secretary of State for Transport provided the group with a loan facility of £30,875m 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

	2018 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	125	128
Fair value hedges		
Cross-currency swaps to hedge debt issued under the Debt Issuance Programme	217	1,738
Non-hedge accounted derivatives		
Cross-currency swaps to hedge debt issued under the Debt Issuance Programme	97	198
Interest rate swaps	57	4,531
Forward foreign exchange contracts	0	11
	496	6,606
Included in non-current assets	269	3,497
Included in current assets	227	3,109
	496	6,606
Derivative financial instrument liabilities		
Cash flow hedges		
Interest rate swaps	(19)	130
Forward starting interest rate swaps	(242)	2,695
Non-hedge accounted derivatives		
Interest rate swaps to hedge debt issued under the Debt Issuance Programme	(905)	22,590
Forward foreign exchange contracts	(1)	66
	(1,167)	25,481
Included in current liabilities	(20)	2,401
Included in non-current liabilities	(1,147)	23,080
	(1,167)	25,481

20. Derivative financial instruments continued

	2017 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	153	128
Fair value hedges		
Cross-currency swaps to hedge debt issued under the Debt Issuance Programme	671	2,513
Non-hedge accounted derivatives		
Cross-currency swaps to hedge debt issued under the Debt Issuance Programme	120	198
Interest rate swaps	156	9,144
Forward foreign exchange contracts	2	43
	1,102	12,026
Included in non-current assets	864	9,027
Included in current assets	238	2,999
	1,102	12,026
Derivative financial instrument liabilities		
Cash flow hedges		
Interest rate swaps	(26)	130
Forward starting interest rate swaps	(636)	5,696
Non-hedge accounted derivatives		
Interest rate swaps to hedge debt issued under the Debt Issuance Programme	(864)	12,100
Forward foreign exchange contracts	(3)	48
	(1,529)	17,974
Included in current liabilities	(1)	34
Included in non-current liabilities	(1,528)	17,940
	(1,529)	17,974

Notes to the financial statements continued

21. Provisions

	Legal £m	Other £m	Total £m
At 31 March 2017	**1**	**63**	**64**
Charge for the year	8	22	30
Utilised in the year	-	(4)	(4)
Release for the year	-	(9)	(9)
At 31 March 2018	**9**	**72**	**81**

Included in current liabilities	81

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 31 March 2016	**2,470**	**608**	**(257)**	(13)	–	2,808
(Credit)/charge to income	75	–	(18)	(9)	–	48
(Credit)/charge to other comprehensive income	–	(204)	(115)	(3)	–	(322)
Impact of change in tax rate to income	(134)	–	10	1	33	(90)
Impact of change in tax rate to equity	–	(14)	(15)	10	–	(19)
Transfer between reserves	–	(344)	344	–	–	–
De-recognition of deferred tax asset to income	–	–	–	–	1	1
De-recognition of deferred tax asset to equity	–	–	–	(7)	–	(7)
Utilisation of losses previously derecognised	–	–	–	–	(34)	(34)
At 31 March 2017	**2,411**	**46**	**(51)**	(21)	–	2,385
Charge/(credit) to income	**10**	–	**(38)**	(1)	25	(4)
(Credit)/charge to other comprehensive income	–	**115**	**37**	31	–	183
Transfer between reserves	–	**1**	**(1)**	–	–	–
Utilisation of losses previously derecognised	–	–	–	–	(2)	(2)
Derecognition of deferred tax asset (income)	–	–	–	–	(23)	(23)
Derecognition of deferred tax asset (equity)	–	–	–	(31)	–	(31)
At 31 March 2018	**2,421**	**162**	**(53)**	(22)	–	2,508

22. Deferred tax continued

Certain deferred tax assets and liabilities have been offset. The following is the analysis of the gross deferred tax balances:

	2018 (£m	2017 (£m
Deferred tax liabilities	**2,583**	**2,457**
Deferred tax assets	**(75)**	**(72)**
	2,508	**2,385**

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. Additionally, whilst taxable income does not exceed allowable deductions in the year, Network Rail claims only the capital allowances sufficient to make the necessary claims for group relief and available tax credits.

During the year, a deferred tax asset in respect of current year losses on derivatives of £22m has been derecognised.

23. Notes to the statement of cash flows

	2018 Group £m	2017 Group £m	2018 Group £m	2017 Company £m
Profit before tax	**48**	**483**	**–**	**–**
Adjustments for:				
Property revaluation movements and profits on disposal	**(190)**	**(195)**	**–**	**–**
Fair value (gain)/loss on derivatives and debt	**(234)**	**21**	**–**	**–**
Net interest expense	**2,225**	**1,687**	**–**	**–**
Depreciation of the rail network	**1,638**	**1,515**	**–**	**–**
Amortisation of capital grants	**(99)**	**(88)**	**–**	**–**
Amortisation of intangible assets	**1**	**1**	**–**	**–**
Movement in retirement benefit obligations	**164**	**47**	**–**	**–**
Increase/(decrease) in provisions	**17**	**(7)**	**–**	**–**
Operating cash flows before movements in working capital	**3,570**	**3,464**	**–**	**–**
(Decrease)/increase in inventories	**(24)**	**14**	**–**	**–**
Decrease in receivables	**28**	**101**	**–**	**–**
Decrease in payables	**(25)**	**(167)**	**–**	**–**
Cash generated from operations	**3,549**	**3,412**	**–**	**–**

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 £305m of short term deposits held as at 31 March 2018 with an average term of 3 days from the balance sheet date (2017: £368m of short term deposits with an average term of 3 days). Cash and money market deposits had an average maturity of 39 days (2017: 52 days) from the balance sheet date.

Notes to the financial statements continued

24. Operating lease arrangements

The group as lessee	2018 Group £m	2017 Group £m
Minimum lease payments under operating leases recognised in the income statement in the year	40	36

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:

	2018 Group £m	2017 Group £m
Within one year	33	33
In the second to fifth years inclusive	98	81
After five years	121	115
	252	229

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 £674m (2017: £650m). This amount includes property rental income of £306m (2017: £293m), as disclosed in Note 3.

At the balance sheet date, the group had contracted with customers for the following future minimum lease payments:

	2018 Group £m	2017 Group £m
Within one year	444	426
In the second to fifth years inclusive	1,213	1,024
After five years	2,335	2,029
	3,992	3,479

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 AA by Standard and Poor's, Aa2 (outlook stable) by Moody's and AA (outlook negative) 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 per cent 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 18) as follows:

	2018 £m	2017 £m
Net debt per Note 19	**(51,297)**	**(46,254)**
Revaluations and remeasurements	**939**	**1,462**
Regulatory net debt	**(50,358)**	**(44,792)**

The RAB used to calculate the debt to RAB ratio is:

	2018 £m	2017 £m
Rail network per Note 12	**64,142**	**59,205**
Investment properties per Note 13	**206**	**1,231**
Other fair value adjustments	**2,444**	**1,317**
RAB	**66,792**	**61,753**

The debt to RAB ratio at 31 March 2018 and 2017 was as follows:

	2018	2017
Debt: RAB ratio	**75.4%**	**72.5%**

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 per cent of the ORR's RAB then the ORR will be formally notified. During the year Network Rail received consent from the ORR to exceed the financial indebtedness Debt:RAB ratio.

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 2018 and 31 March 2017.

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.

	2018		2017	
Group	Carrying value £m	Fair value £m	Carrying value £m	Fair value £m
Financial assets				
Cash and cash equivalents as loans and receivables	**973**	**973**	**942**	**942**
Other non-derivative financial assets				
Assets held for sale	**1,134**	**1,134**	–	–
Investment property	**206**	**206**	**1,231**	**1,231**
Plant, property and equipment - the rail network	**64,142**	**64,142**	**59,205**	**59,205**
Trade and other receivables (less prepayments and accrued income and other taxation and social security)	**1,308**	**1,308**	**1,158**	**1,158**
Collateral receivable	**750**	**750**	**625**	**625**
Derivatives				
Derivatives designated as cash flow hedging instruments	**125**	**125**	**153**	**153**
Derivatives designated as fair value hedging instruments	**217**	**217**	**671**	**671**
Other derivatives as fair value through profit and loss	**154**	**154**	**278**	**278**
Total derivatives	**496**	**496**	**1,102**	**1,102**
Total financial assets	**69,009**	**69,009**	**64,263**	**64,263**
Financial liabilities				
Financial liabilities held at amortised cost				
Bank loans	**(481)**	**(811)**	**(479)**	**(839)**
Bonds issued under the Debt Issuance Programme	**(25,419)**	**(30,617)**	**(26,742)**	**(31,975)**
Borrowings issued by Department for Transport	**(26,750)**	**(26,245)**	**(20,037)**	**(20,370)**
Collateral payable	**(87)**	**(87)**	**(259)**	**(259)**
Financial liabilities designated as fair value through profit and loss				
Bonds issued under the Debt Issuance Programme	**(283)**	**(283)**	**(304)**	**(304)**
Total borrowing	**(53,020)**	**(58,043)**	**(47,517)**	**(53,443)**
Trade and other payables at amortised cost	**(2,754)**	**(2,754)**	**(4,306)**	**(4,306)**
Derivatives				
Derivatives designated as cash flow hedging instruments	**(261)**	**(261)**	**(662)**	**(662)**
Other derivatives as fair value through profit and loss	**(906)**	**(906)**	**(867)**	**(867)**
Total derivatives	**(1,167)**	**(1,167)**	**(1,529)**	**(1,529)**
Total financial liabilities	**(56,941)**	**(61,964)**	**(53,352)**	**(59,278)**

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 has 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 £21m (2017: £28m loss) 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 2018 the fair value of collateral held was £87m (2017: £259m). 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 2018 was £750m (2017: £625m).

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 128.

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 per cent hedged and therefore no sensitivity analysis is produced.

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 £18,885m (2017: £21,373m) 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 £3,120m which hedge the interest rate on forecast borrowings in CP5. The weighted average rate on these swaps is 3.07per cent. The fair value movement on these swaps during the year was a gain of £41m.

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 per cent increase or decrease represents management's assessment of the reasonably possible changes in average interest rates and inflation.

	Group 31 March 2018		Group 31 March 2017	
	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	**341**	**(20)**	(726)	(159)
1 % increase in the GBP RPI on index linked bonds	**(179)**	**–**	(182)	–

A one per cent 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 per cent 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 £6,187m (2017: £5,885m) of revenue which is far in excess of an index-linked interest expense of £243m (2017: £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 2018					
Non-derivative financial liabilities					
Bank loans and overdrafts	(5)	(5)	(14)	(483)	(507)
Bonds issued under the Debt Issuance Programme					
– Sterling denominated bonds	(196)	(196)	(1,496)	(4,573)	(6,461)
– Sterling denominated index-linked bonds	(256)	(264)	(839)	(38,849)	(40,208)
– Foreign currency denominated bonds	(1,993)	(13)	(454)	(69)	(2,529)
Loan from the Department for Transport	(3,007)	(10,605)	(11,024)	(4,041)	(28,677)
Trade and other payables	(1,228)	(137)	-	-	(1,365)
Derivative financial liabilities					
Net settled derivative contracts	(191)	(177)	(372)	(104)	(844)
Gross settled derivative contracts – receipts	1,993	13	454	69	2,529
Gross settled derivative contracts – payments	(1,757)	(5)	(282)	(61)	(2,105)
	(6,640)	(11,389)	(14,027)	(48,111)	(80,167)

Group	Within 1 year £m	1-2 years £m	2-5 years £m	5+ years £m	Total £m
31 March 2017					
Non-derivative financial liabilities					
Bank loans and overdrafts	(17)	-	(10)	(527)	(554)
Bonds issued under the Debt Issuance Programme					
– Sterling denominated bonds	(971)	(214)	(1,595)	(5,149)	(7,929)
– Sterling denominated index-linked bonds	(155)	(155)	(464)	(20,612)	(21,386)
– Foreign currency denominated bonds	(1,055)	(2,237)	(535)	(979)	(4,806)
Loan from the Department for Transport	(2,117)	(3,290)	(13,910)	(2,240)	(21,557)
Trade and other payables	(2,443)	(1,570)	-	-	(4,013)
Derivative financial liabilities					
Net settled derivative contracts	(160)	(280)	(916)	(409)	(1,765)
Gross settled derivative contracts – receipts	1,040	2,225	964	146	4,375
Gross settled derivative contracts – payments	(794)	(1,764)	(276)	(61)	(2,895)
	(6,672)	(7,285)	(16,742)	(29,831)	(60,530)

25. Funding and financial risk management continued

Offsetting financial assets and liabilities

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: Financial instruments £m	Related amounts not set off in the balance sheet: Cash collateral received £m	Net amount £m
31 March 2018						
Derivative financial assets	**496**	-	**496**	**(406)**	**123**	**213**

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: Financial instruments £m	Related amounts not set off in the balance sheet: Cash collateral received £m	Net amount £m
31 March 2017						
Derivative financial assets	**1,102**	**–**	**1,102**	**(868)**	**(9)**	**225**

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: Financial instruments £m	Related amounts not set off in the balance sheet: Cash collateral paid £m	Net amount £m
31 March 2018						
Derivative financial liabilities	**(1,167)**	-	**(1,167)**	**406**	**540**	(221)

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: Financial instruments £m	Related amounts not set off in the balance sheet: Cash collateral paid £m	Net amount £m
31 March 2017						
Derivative financial liabilities	**(1,529)**	**–**	**(1,529)**	**868**	**375**	(286)

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).

	2018			
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Property, plant and equipment – the rail network	–	–	64,142	64,142
Investment properties	–	–	206	206
Derivative financial assets	–	496	–	496
Assets held for sale	–	–	1,134	1,134
Financial assets held at amortised cost	–	2,281	–	2,281
Assets	–	2,777	65,482	68,259
Derivative financial liabilities	–	(1,167)	–	(1,167)
Financial liabilities designated at fair value through profit and loss	(283)	–	–	(283)
Financial liabilities designated at amortised cost	(29,713)	(30,714)	–	(60,427)
Liabilities	(29,996)	(31,881)	–	(61,877)
Total	(29,996)	(29,104)	65,482	6,382

	2017			
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Property, plant and equipment – the rail network	–	–	59,205	59,205
Investment properties	–	–	1,231	1,231
Derivative financial assets	–	1,102	–	1,102
Financial assets held at amortised cost	–	2,100	–	2,100
Assets	–	3,202	60,436	63.638
Derivative financial liabilities	–	(1,529)	–	(1,529)
Financial liabilities designated at fair value through profit and loss	(304)	–	–	(304)
Financial liabilities designated at amortised cost	(30,471)	(27,019)	–	(57,490)
Liabilities	(30,775)	(28,548)	–	(59,323)
Total	(30,775)	(25,346)	60,436	4,315

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.

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.

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 % for the current control period, arrived at through advice from consultants, comparisons to similar infrastructure assets and discussions with Network Rail.

25. Funding and financial risk management continued

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.

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 2018 £m	Minimum £	Maximum £	Weighted average £	Minimum %	Maximum %	Weighted average %
Valuation Technique:							
One-off valuation	**73**	**0.66**	**336**	**3.53**	3.3	7.0	5.3
Beacon method*	**133**	**n/a**	**n/a**	**n/a**	5.3	12.0	8.3

* The Beacon methodology splits all the properties within the portfolio into 12 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.

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 2018, the NRDCPS had 12,170 members (2017: 10,595) and the average employer contribution rate in the year was 4.3 per cent (2017: 4.3 per cent).

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 2018 and 31 March 2017.

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.

The estimated amounts of contributions expected to be paid by the group and members to the schemes during the year ending 31 March 2019 are £114m and £74m 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.

	2018 %	2017 %
Key assumptions used:		
Discount rate	**2.4**	2.5
Expected rate of price inflation and CARE benefit increases (RPI measure)	**3.1**	3.2
Future earnings increases*		
- after changes to benefits from 1 April 2016	**3.1**	3.2
Pension increases (CPI measure)	**2.1**	2.2

* Excluding 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

	2018		2017	
	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)	**22.1**	**23.7**	21.2	23.0
– Member aged 65 now (others)	**22.1**	**23.7**	23.6	24.8
– Member aged 65 in 20 years' time (pension under £10,300 pa or pensionable pay under £35,000 pa)	**23.8**	**25.6**	23.6	25.4
– Member aged 65 in 20 years' time (others)	**23.8**	**25.6**	25.9	27.2

For the Network Rail Section of the RPS the discounted mean term of the Defined Benefit obligation is 22 years, for the CARE scheme it is 33 years.

Amounts recognised in income in respect of the group's pension arrangements are as follows:

	2018 £m	2017 £m
Current service cost – defined contribution (see Note 6)	**19**	18
Current service cost – defined benefit (see Note 6)	**256**	178
Past service credit - defined benefit (see Note 6)	**-**	(42)
Interest cost	**53**	45
	328	199

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.

Amounts recognised in the statements of comprehensive income in respect of the group's pension arrangement are as follows:

	2018 £m	2017 £m
(Gain)/loss on defined benefit obligation due to experience	**(31)**	(81)
Loss on defined benefit obligation due to assumption changes	**(132)**	1,292
Return on plan assets greater than discount rate	**(58)**	(412)
Actuarial (gain)/loss on defined benefit pension scheme	**(221)**	**799**

The cumulative amount of actuarial losses recognised in other comprehensive income was £1,488m (2017: £1,709m).

Financial statements

26. Retirement benefit schemes continued

The amount included in the balance sheet arising from the group's obligations in respect of its defined benefit schemes is as follows:

	2018 £m	2017 £m
The defined benefit obligation is made up as follows:		
Active members	**(5,827)**	(5,843)
Deferred pensioner member	**(1,281)**	(1,084)
Retired members	**(3,200)**	(3,156)
Present value of defined benefit obligation	**(10,308)**	(10,083)
Fair value of scheme assets	**6,457**	6,231
Deficit in the scheme	**(3,851)**	**(3,852)**
Group's share (60%) of the scheme deficit recognised in the balance sheet	**(2,311)**	**(2,311)**

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 31 March 2016	**5,375**	**(7,742)**	**(2,367)**
Current service cost including members' share	–	(314)	(314)
Interest on pension deficit	183	(259)	(76)
Administration expenses	(8)	–	(8)
Return on plan assets greater than the discount rate	687	–	687
Section amendment	–	70	70
Actuarial gain arising from experience adjustments	–	135	135
Actuarial loss arising from financial assumptions	–	(2,155)	(2,155)
Regular contributions by employer	107	–	107
Contributions by employees	69	–	69
Benefits paid	(182)	182	–
At 31 March 2017	**6,231**	**(10,083)**	**(3,852)**
Current service cost including members' share	**-**	**(440)**	**(440)**
Interest on pension deficit	**156**	**(249)**	**(93)**
Administration expenses	**(11)**	**-**	**(11)**
Return on plan assets greater than the discount rate	**97**	**-**	**97**
Actuarial gain arising from experience adjustments	**-**	**52**	**52**
Actuarial loss arising from demographic assumptions	**-**	**219**	**219**
Regular contributions by employer	**107**	**-**	**107**
Contributions by employees	**70**	**-**	**70**
Benefits paid	**(193)**	**193**	**-**
At 31 March 2018	**6,457**	**(10,308)**	**(3,851)**

*Including CARE scheme assets at 31 March 2018 of £214m (2017: £198m)
**Including CARE scheme liabilities at 31 March 2018 of £476m (2017: £377m)

The actual return on scheme assets was £253m (2017: £794m).

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 2018 IAS19 assumptions are as follows:

	£m
Benefits expected to be paid within 12 months	182
Benefits expected to be paid between 2 to 3 years	404
Benefits expected to be paid between 4 to 6 years	709
Benefits expected to be paid between 7 to 10 years	1,144
Benefits expected to be paid between 11 to 15 years	1,737
Benefits expected to be paid in over 15 years	12,129

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	
	2018 £m	2017 £m	2018 %	2017 %
Equity instruments	**5,714**	**5,509**	**88.49**	**88.41**
Debt instruments – Government	**472**	**417**	**7.31**	**6.69**
Debt instruments – non-Government	**265**	**259**	**4.10**	**4.16**
Property	**6**	**7**	**0.10**	**0.11**
Other	**-**	**39**	**-**	**0.63**
	6,457	**6,231**		

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 a 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.

26. Retirement benefit schemes continued

The following table shows the effect of changes in these assumptions upon the defined benefit obligation:

	2018 £m	2017 £m
Discount rate		
Change in defined benefit obligation at year end from a 25 basis points increase	**(529)**	**(495)**
Change in defined benefit obligation at year end from a 25 basis points decrease	**571**	**524**
Mortality		
Change in defined benefit obligation from a one year increase in longevity	**287**	**323**
Change in defined benefit obligation from a one year decrease in longevity	**(278)**	**(313)**
Earnings increase		
Change in defined benefit obligation at year end from a 25 basis points increase	**164**	**195**
Change in defined benefit obligation at year end from a 25 basis points decrease	**(159)**	**(189)**
Price inflation (CPI measure)*		
Change in defined benefit obligation at year end from a 25 basis points increase	**541**	**522**
Change in defined benefit obligation at year end from a 25 basis points decrease	**(505)**	**(496)**

* 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 grant income of £4,480m from the DfT in the year ended 31 March 2018 (2017: £3,916m). The group also paid the DfT £281m in respect of the Financial Indemnity Mechanism fee (see note 25 for more details). At 31 March 2018 the company held £26,750m of loans issued by DfT (2017: £20,037m).

The British Transport Police (BTP), with whom Network Rail has a Police Service Agreement is also a related party. Network Rail incurred £93m (2017: £90m) of costs relating to services provided by the BTP in the year ending 31 March 2018 and received £1m (2017: £1m) in property income from the BTP in the same period.

Network Rail is also a related party of High Speed 2 (HS2). At the end of the financial year Network Rail held £73m (2017: £45m) of capital work in progress relating to works on HS2 and had also received £50m (2017: £39m) of capital grants that was recorded against property, plant and equipment.

Network Rail Limited
1 Eversholt Street
London NW1 2DN

Tel **020 7557 8000**

networkrail.co.uk

Company number: 4402220
Registered in England and Wales

Working for you