

Network Rail monitor Q3 2008-09

14 September 08 - 3 January 09



OFFICE OF RAIL REGULATION

Trend in train accident risk flattens

- The level of train accident risk remains broadly the same as in the past two years.

Train punctuality is at the highest level since at least March 1998

- Train punctuality continues to improve. The public performance measure (PPM) moving annual average (MAA) at the end of Q3 was 90.8%, above the industry year-end target of 90.6% and 1.4% higher than at the end of Q3 last year. This is the highest level since the measure was introduced in its current form (March 1998).
- There were further reductions in Network Rail delay minutes to passenger trains. The MAA at the end of Q3 was 11.6% lower than at the same point last year.
- Network Rail delay per 100 freight train kms operated fell by 7.0% year-to-date, only very slightly behind Network Rail's own target.

Asset reliability

- Infrastructure reliability continues to improve overall. This is largely driven by improvements in the reliability of the track assets. What are described as non-track assets (a diverse grouping that includes electrification, points and the whole signalling system), are improving at a much slower rate than track assets and there are still significant variations across the network and by asset type. In some cases (e.g. signal failures) performance improvements appear to have stalled altogether, while the number of points failures causing delay is actually worse than last year.

- While failures of the overhead electrification system are only responsible for a small proportion of total delay to trains, when they do occur the impact is severe and usually includes train cancellations. This has most recently caused serious disruption on the West Coast main line (WCML). Further improvements in this area will be needed for Network Rail to meet its overall performance targets in coming years.
- The introduction of new technologies by Network Rail, such as axle counters and certain point drives, has not always achieved the level of reliability that should be expected. We are challenging Network Rail on this issue and we will continue to monitor progress closely as it applies the important lessons it is learning.

Challenging renewals and enhancement budget for Network Rail

- Network Rail's budget for 2008-09 includes a substantial increase in renewals and enhancements spend over last year. Given that actual spend for the year to date is below budget, we continue to doubt whether the company's full-year forecast spend is achievable and whether the timing of the expenditure will be efficient.
- Network Rail has previously said that it is intending to plan and deliver work more evenly throughout the year and is developing a rolling programme of work that will cover a number of years, instead of planning for an annual period. This should help to ensure that where possible unplanned and inefficient peaks in expenditure are avoided.

West Coast mainline project delivery

- Since the previous monitor Network Rail has delivered the final seven commissioning milestones necessary for the December 2008 timetable and the introduction of a new more intensive train service.
- We will monitor Network Rail's delivery of the residual milestones planned for 2009 that complete its obligations for the WCRM project and its progress with completing work that enables maintenance on the route to sustain long-term performance.

West Coast mainline performance

- In June 2008 Virgin formally raised concerns regarding poor reliability on the route. A joint recovery plan was put in place and ORR undertook weekly monitoring and regular review with the parties. It was agreed to introduce a commissioning timetable from mid-December. This timetable essentially introduced the planned service changes, including faster journey times and improved frequencies for Virgin trains, but with a small number of services omitted and some reductions in London Midland and Southern services. The full timetable was subsequently introduced from 16 February.
- Although services on the route have experienced major disruption on a significant number of occasions in recent months these have mainly been due to failures of long-installed equipment (together with some external incidents and extreme weather). We have kept closely in touch with Network Rail's investigation and management of these events and we are satisfied that there is no direct connection between most of them, although there are longer-term underlying issues which Network Rail must address.

Network Rail's management of engineering projects involving possessions

- In response to our enforcement order to address the areas of weakness that we identified, Network Rail submitted a report on 23 December setting out why it believes it has now delivered the required improvements.
- The independent reporter will audit a selection of engineering projects in March 2009 to check whether the improvements have been delivered on the ground. We will then be in a position to consider whether Network Rail has complied with the terms of the enforcement order.

Western route performance improving

- First Great Western performance continues to do well. PPM for Q3 was 89.7% and the MAA figure of 89.1% at the end of Q3 was well ahead of the trajectory in the agreed joint performance improvement plan. Although we continue to monitor results on Western route closely, ORR remains satisfied that all parties are working together effectively to improve performance.

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1. Great Britain summary data



Q3 2008-09 (14 September 2008 - 3 January 2009)

Key performance indicators (KPIs)		2007-08		2008-09			2008-09
		Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Year end forecast
1 - Safety risk	Actual	47.9	46.3	46.8	47.1	n/av	n/app
RSSB train accident precursor measure (composite)	Previous year's actual	46.6	48.7	48.9	49.9	47.9	n/app
2 - Passenger train performance	Actual at end of quarter	89.3	89.9	90.1	90.5	90.8	90.6
Public performance measure (PPM) (MAA) (%)	Industry target	88.9	89.5	90.0	90.2	90.6	90.6
3 - Network Rail delay minutes	Year to date actual	7.4	9.5	1.9	3.8	6.8	8.7
Number of delay minutes (millions) attributed to Network Rail	ORR target	7.6	9.8	2.0	4.1	7.0	9.1
4 (a) – Delays to passenger trains	Normalised for the quarter	2.03	1.63	1.52	1.46	1.76	n/av
Network Rail delay minutes to Train operating companies per 100 train km	ORR derived target	1.94	1.70	1.57	1.70	1.81	1.65
4 (b) – Delays to freight trains	Normalised for the quarter	4.25	4.23	3.86	3.94	4.17	n/av
Network Rail delay minutes to Freight operating companies per 100 train km	Network Rail target	4.13	3.76	3.94	3.95	4.09	3.95
5 - Asset failures	Actual 4-weekly average	3,862	3,998	4,075	3,932	3,762	n/av
Number of infrastructure incidents	Previous year's actual	4,334	4,583	4,431	4,230	3,862	45,668
6 - Asset stewardship index (ASI)	Actual	0.66	0.63	0.62	0.62	0.60	n/av
Composite of seven asset condition measures	Network Rail target	0.71	0.70	0.68	0.66	0.63	0.61
7 - Activity volumes (track renewals only)	Actual cumulative	97.6	97.1	94.9	97.0	96.5	99.3
% Activity compared with plan	Network Rail target	100	100	100	100	100	100
8 (a) - Expenditure (OMR)	Year to date actual	3,872	5,187	1,163	2,420	4,142	5,676
Operating, maintaining and renewing the network (£ millions)	Year to date budget	4,161	5,611	1,255	2,630	4,456	5,895
	Variance %	-6.9	-7.6	-7.3	-8.0	-7.0	
8 (b) - Expenditure (enhancements)	Year to date actual	481	743	249	542	963	1,308
Enhancing the network (£ millions)	Year to date budget	555	749	276	614	1,020	1,278
	Variance %	-13.3	-0.8	-9.8	-11.7	-5.6	
9 - Financing	Actual	68.6	69.3	66.3	65.8	67.5	68.8
Net debt to RAB (Regulatory asset base) ratio (%)	Network Rail budget	70.2	72.4	66.1	66.1	67.1	68.4
10 - Financial efficiency index (FEI)	Year to date actual	78.9	78.1	79.2	79.3	77.8	76.7
Adjusted cost of operations, maintenance and track renewals	Network Rail target	78.5	77.9	78.4	78.2	77.0	75.3

1. Great Britain



Key performance indicators (KPIs)		2007-08		2008-09			2008-09
		Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Year end forecast
1 - Safety risk RSSB train accident precursor measure (composite)	Actual	47.9	46.3	46.8	47.1	n/av	Year end target
	Previous year's actual	46.6	48.7	48.9	49.9	47.9	n/app
							n/app
							n/app

1 – Safety Risk

The level of overall train accident risk on the network, as measured by RSSB's train accident risk measure, the precursor indicator model (PIM), has remained broadly unchanged since Q1.

Level crossing misuse remains the biggest source of risk of a train accident, with an increase in the risk from misuse of level crossings due to public actions. This has been on an upward trend since Q4 last year and Network Rail has launched a further stage in its television and radio campaign to raise road users' awareness of the risk.

1. Great Britain



Key performance indicators (KPIs)		2007-08		2008-09			2008-09
		Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Year end forecast
2 - Passenger train performance	Actual at end of quarter	89.3	89.9	90.1	90.5	90.8	90.6
Public performance measure (PPM) (MAA) (%)	Industry target	88.9	89.5	90.0	90.2	90.6	90.6

2 – Passenger train performance

(Franchised passenger operators only)

The public performance measure (PPM) moving annual average (MAA) at the end of Q3 was 90.8%, above the industry year-end target of 90.6% and 1.4% higher than at the end of Q3 last year. This is the highest level since the measure was introduced in its current form (March 1998).

The improvement has been driven by year-to-date reductions in Network Rail delay minutes of 8.9% and in train operators' delay minutes of 7.9%.

West Coast main line

PPM in Q3 for Virgin Trains and London Midland was poor at 82.0% and 84.3% respectively. A detailed explanation of issues on the WCML is provided on page 22.

East Coast main line

National Express East Coast (NEXC) Q3 PPM was 87.1%, 1.4% better than in Q2 and 1.4% higher than in Q3 last year.

Western route

First Great Western's performance, and Network Rail's delay, continued to go well, with PPM at 89.7% in Q3. Neither seasonal factors nor the December timetable change appeared to cause any major issues.

1. Great Britain



Key performance indicators (KPIs)		2007-08		2008-09			2008-09
		Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Year end forecast
3 - Network Rail delay minutes Number of delay minutes (millions) attributed to Network Rail	Year to date actual	7.4	9.5	1.9	3.8	6.8	8.7
	ORR target	7.6	9.8	2.0	4.1	7.0	9.1
4 (a) – Delays to passenger trains Network Rail delay minutes to Train operating companies per 100 train km	Normalised for the quarter	2.03	1.63	1.52	1.46	1.76	n/av
	ORR derived target	1.94	1.70	1.57	1.70	1.81	1.65
4 (b) – Delays to freight trains Network Rail delay minutes to Freight operating companies per 100 train km	Normalised for the quarter	4.25	4.23	3.86	3.94	4.17	n/av
	Network Rail target	4.13	3.76	3.94	3.95	4.09	3.95

3 – Network Rail delay minutes

(all train operators)

Delay at the end of Q3 was 6.77 million minutes, year-to-date. Network Rail delay to all services in Q3 was 7.6% lower than in Q3 last year, 2.9% lower than the regulatory target of 7,034 million minutes and 0.8% lower than Network Rail's own business plan target of 6,807 million minutes. The MAA at the end of Q3 was 13.9% lower than at the same point last year.

A year-to-date comparison with last year shows notable reductions in delay from:

- severe weather – 49% better;
- track faults (including broken rails) – 17% better; and
- real time signalling decisions – 11% better.

However there were increases in delays from:

- external other – 83% worse;
- low adhesion – 46% worse;
- infrastructure damage – vandalism /theft – 14% worse (largely cable theft);
- signal failures – 7% worse; and
- signal systems and power supply failures – 3% worse.

4 (a) and (b) – Delays to passenger/freight trains

Although delay caused by Network Rail continue to decline overall there has been considerable variation within some categories as noted above. Signalling equipment issues are described in Section 5.

The external other category is relatively small – 13th largest on a year-to-date basis – and can be significantly affected by a small number of unforeseeable events. Q3 saw some external power supply failures and an aircraft crash on the West Coast main line at Colwich. The power supply failures raise questions about the resilience of emergency power supplies to the signalling system and we will be discussing this issue with Network Rail.

The problem of cable theft continues on some parts of the network, despite a range of continuing actions to increase security and apprehend those responsible. These challenges are by no means confined to the rail industry. Network Rail is working well with the British Transport Police and other agencies to tackle the problem.

1. Great Britain



The weather in Q3 caused more problems than last year and the latter part of autumn undoubtedly proved to be more difficult than expected. Despite a high level of activity in vegetation management and railhead treatment, adhesion problems were significant. The extent of the effect can vary from year to year depending on the combination and timing of weather conditions.

Although there no longer appears to be a general trend of worsening freight performance across the network we continue to monitor this area closely. Network Rail delay per 100 freight train kms operated fell by 7.0% year-to-date, only very slightly behind Network Rail's own target. The current economic situation is causing considerable changes to freight traffic mix and any problems on the West Coast main line have a major effect on freight performance.

1. Great Britain



Key performance indicators (KPIs)		2007-08		2008-09			2008-09
		Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Year end forecast
5 - Asset failures	Actual 4-weekly average	3,862	3,998	4,075	3,932	3,762	Year end target
Number of infrastructure incidents	Previous year's actual	4,334	4,583	4,431	4,230	3,862	n/av
							45,668

5 – Asset failures

Overall infrastructure reliability continues to improve. Infrastructure failure incidents were 6% down on Q3 last year and delay was down by 8.5% to 3.4 million minutes. The adjacent table provides a breakdown of delay year-to-date by asset category.

The overall improvement is being driven by the improving reliability of track assets, which in Q3 accounted for 21% of all infrastructure delay. Conversely, the reliability of non-track assets (which includes electrification, points and the signalling infrastructure), which account for 62% of infrastructure delay, is improving much more slowly and in some cases not at all.

There also remain significant reliability differences across the network and between asset groups, with the reliability of the overhead electrification system and some types of new equipment being particular concerns at present. Both issues are major elements in our on-going monitoring activity.

Track assets

Delay from track asset failures for the year to date was 20% less than at the same point last year, a significant reduction reflecting much improved track asset management.

Track faults were down 12% compared to Q3 last year and temporary speed restrictions (TSRs) caused by track condition were down by 26%.

Categories of infrastructure caused delay: delay minutes year-to-date

	Delay minutes	% of total
Track assets	722,347	21%
Non-track assets		
Points failures	565,234	17%
Track circuits (train detection)	544,718	16%
Signals and telecommunications	864,188	25%
Electrification	150,410	4%
Total non-track assets	2,124,550	62%
Other categories including structures, weather and external factors	568,116	17%
Total	3,415,013	

Source: Network Rail period performance report

The number of rail defects on some routes due to new heavier trains with stiffer suspensions, particularly on routes out of Waterloo, remains an issue, although this is decreasing on other routes. The national total of continuous rail defects remaining per 100km at the end of Q3 was 27% lower than last year.

The mitigation measures for this long-term problem are progressing as planned with the exception of the 18-month trial of a new wheel profile on the trains serving the Windsor routes. The acceptance procedure is following due process but has delayed the December 2008 start date. The new wheel profile is now expected to be introduced with a programme between March and May this year. We will continue monitoring progress with this important work.

Non-track assets

Although there was a slight improvement in the reliability of non-track assets overall, it was very small and compares most unfavourably with what has been achieved on the track. Just 1.7% fewer non-track incidents reduced total delay by 2% when compared with last year.

Points

At a network level the number of points failures causing delay was slightly higher (1.7%) than last year.

Welcome new data from Network Rail provides a fuller picture of all points failures than previously available. A rolling four-year trend MAA figure shows that although the current rate of failure per switch and crossings (S&C) unit is better than it was eighteen months ago, points reliability nationally is still worse than it was in and before 2005. This does not reflect well on Network Rail's initiatives to improve the reliability of points.

There is a wide variation between the best and worst routes. It appears that the national figure is being significantly affected by the two worst performing routes - Scotland and LNE. Both routes are seeing more points failures than last year and have a current failure rate equivalent to one for every set of points each year. The figure for LNE has steadily deteriorated and is now 44% worse than it was four years ago. In contrast, on other parts of the network such as Kent and East Anglia the figures of 0.57 and 0.64 failures per unit per annum reflect a level of reliability that is almost 75% better than the two worst routes.

We are encouraging Network Rail's moves to apply such analysis, to understand the reasons for such variations and to exploit the opportunities to improve performance by migrating best practice across the network.

Train detection

There was a slight reduction in the number of failures of train detection equipment (track circuits and axle counters) and in the delay caused, but once again better results could be achieved if the reductions on routes such as East Anglia and Wessex were replicated elsewhere. In contrast, LNW and Sussex routes have experienced a decline in the reliability of train detection equipment.

Signalling and telecommunications

Delay from all signalling and telecoms categories for the year to date showed a very small reduction of 1.5% compared with the same point last year, whereas the reduction over the previous 12 months was almost 10%. This illustrates well the slow down in the rate of improvement of the reliability of non-track assets. Although past improvements (for example in the reliability of train detection assets) are being consolidated, new initiatives and a new emphasis are clearly needed if further performance improvements are to be achieved.

Elsewhere, we note and welcome the fact that cable faults were down 21% and the delay was down 13%.

Although a relatively small contributor to overall delay, the category showing the worst performance was telecom failures, with delay 14% more than a year ago and 32% more than two years ago. We are investigating the reasons for this increase.

Electrification

The total number of incidents year-to-date is higher than last year (60 against 55). Although most of this increase was actually caused by a slight rise in failures on the third rail DC network, 80% of all incidents actually occur on the 25kv OLE network. These continue to be the main focus of concern.

Introduction of new technology onto the network

As part of our asset monitoring activity we are examining Network Rail's record with rolling out and maintaining new equipment and technology. For example on a number of routes, particularly (but not limited to) the West Coast main line, the introduction of new types of point drive and axle counters in place of traditional track circuits has had a substantial detrimental effect on train performance, as new equipment has often proved to be less reliable than that replaced.

We believe there are several relevant factors, but it is clear that in the past Network Rail has sometimes introduced new equipment with insufficient attention to detail, be it in relation to design, installation quality, maintenance requirements and/or staff training. Network Rail urgently needs to learn everything it can from such cases in order to drive up the reliability of its assets and avoid similar performance dips whenever new equipment is introduced onto the network. From briefings received so far we are encouraged by the steps Network Rail is taking to identify the issues and correct past deficiencies. However, the proof that it has successfully done so will only come in sustained better performance on the affected routes, and we will continue to seek evidence of this. Given both current performance issues and the scale of future technology changes such as ERTMS and GSM-R, it is essential that the lessons learned by Network Rail are applied at all levels of the organisation.

1. Great Britain



Key performance indicators (KPIs)		2007-08		2008-09			2008-09
		Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Year end forecast
6 - Asset stewardship index (ASI)	Actual	0.66	0.63	0.62	0.62	0.60	n/av
Composite of seven asset condition measures	Network Rail target	0.71	0.70	0.68	0.66	0.63	0.61
7 - Activity volumes (track renewals only)	Actual cumulative	97.6	97.1	94.9	97.0	96.5	99.3
% Activity compared with plan	Network Rail target	100	100	100	100	100	100

6 – Asset stewardship index (ASI)

The ASI continues to outperform the ACR2003 target and Network Rail's own internal stretch target. This improvement is evident in all territories except Scotland through the corresponding ASI-R measure. The quarter ended with an ASI of 0.60, 5% better than Network Rail's target and 9% lower than for Q3 last year.

7 – Activity volumes (track renewals only)

Plain line track renewals

Network Rail renewed¹ 1,766 km of plain line track in the year to date compared to a planned output of 1830 km. This is a composite measure, comprising rails, sleepers and ballast. This is a minor shortfall and Network Rail expects to fully deliver its target for the year.

Switch and crossing renewals

Network Rail renewed¹ 277 switch and crossing equivalent² units in the year to date compared with a planned output of 289. This minor shortfall occurred in the first quarter. Network Rail is forecasting a year-end shortfall of 67 against the planned total of 470 equivalent units. This is partly due to a change to its S&C renewal policy which allows some full renewals to be re-scoped to partial renewals. However, the projected shortfall has increased since the last quarter, and we have asked Network Rail to explain this to ensure it does not compromise future network reliability and performance.

1 Excludes WCRM

2 Weighted to reflect the mix of full renewals, partial renewals and abandonments.

1. Great Britain



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		Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Year end forecast
8 (a) - Expenditure (OMR) Operating, maintaining and renewing the network (£ millions)	Year to date actual	3,872	5,187	1,163	2,420	4,142	5,676
	Year to date budget	4,161	5,611	1,255	2,630	4,456	5,895
	Variance %	-6.9	-7.6	-7.3	-8.0	-7.0	
8 (b) - Expenditure (enhancements) Enhancing the network (£ millions)	Year to date actual	481	743	249	542	963	1,308
	Year to date budget	555	749	276	614	1,020	1,278
	Variance %	-13.3	-0.8	-9.8	-11.7	-5.6	

8 – Expenditure variance

Comparison to budget: Year-to-date

Total expenditure in Q3 was £89m (4.0%) lower than budget with the year-to-date total expenditure £371m (6.8%) below budget. The year-to-date variance was largely due to:

- underspend on renewals of £325m (12.4%), particularly deferral of signalling (£35m), fixed telephone network (FTN) programme (£110m), Efficient engineering access (EEA) (£56m) and plant & machinery (£63m) as a result of delays to these programmes, which is unlikely to have a material impact on improving railway services. These deferrals are partly offset by above budget expenditure on WCRM (£52m) due to the acceleration of work to enable the introduction of the new timetable in December; and
- underspend on enhancement projects of £57m (5.6%), particularly due to underspend on the Thameslink programme (£81m), slower than planned spend of the safety and environment fund (£38m) due to delays in the planning process, offset by higher spend on NRDF schemes (£30m) due to improved planning and additional overspend on WCRM (£22m) due to additional customer/funder requirements.

Comparison to budget: Full year

For the full year, Network Rail is forecasting to spend £189m (2.6%) below budget. This is £177m lower than forecast in Q2, reflecting a more realistic view of renewals expenditure in 2008-09 and an acknowledgement that maintenance costs will be lower than expected largely as a result of a delay to the introduction of new terms and conditions for maintenance staff.

In particular, Network Rail is forecasting to spend:

- £215m (6.2%) below budget on renewals. This reflects deferrals of signalling works (£53m), FTN programme (£114m), EEA (£43m) and plant and machinery (£50m) as a result of delays to these programmes, which is unlikely to have a material impact on improving railway services. These deferrals are partly offset by expected above budget expenditure on WCRM (£95m); and
- £30m (2.3%) above budget on enhancements. Network Rail is forecasting overspend on some of the projects, e.g. WCRM (£38m) due to additional customer/funder requirements, and NRDF (£37m) due to improved planning. This additional spend is partly offset by underspend on Thameslink (£58m). Overall, the projects are expected to cost £69m more than budget but Network Rail is taking the view that it will not be able to deliver all of that spend in 2008-09, so it includes a deliverability adjustment of £39m, which reduces the net overspend to £30m.

1. Great Britain



In our view, Network Rail faces a challenge in delivering its forecast renewals programme in 2008-09, as it involves a significant step up in expenditure in comparison to 2007-08 (12.8%) and would be higher than the spend on renewals in any of the first four years of CP3. Given the size of the underspend in the year to date, we have doubts about the company's ability to deliver its forecast full-year renewals programme.

Our calculation of the starting point (1 April 2009) for the PR08 final determination included our assumptions for 2008-09 income and expenditure for the purposes of forecasting the size of the regulatory asset base, debt levels and corporation tax balances. These assumptions affect the levels of access charges in CP4. Where appropriate, we will adjust for the difference between our assumptions and the 2008-09 outturn in CP5.

1. Great Britain



Key performance indicators (KPIs)		2007-08		2008-09			2008-09
		Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Year end forecast
9 - Financing	Actual	68.6	69.3	66.3	65.8	67.5	68.8
Net debt to RAB (Regulatory asset base) ratio (%)	Network Rail budget	70.2	72.4	66.1	66.1	67.1	68.4
10 - Financial efficiency index (FEI)	Year to date actual	78.9	78.1	79.2	79.3	77.8	76.7
Adjusted cost of operations, maintenance and track renewals	Network Rail target	78.5	77.9	78.4	78.2	77.0	75.3

9 – Financing (Net debt to RAB ratio)

At the end of Q3 Network Rail's net debt to RAB ratio (gearing) of 67.5% was within the regulatory limit but 0.4% above budget. According to Network Rail this is due to:

- net debt being £198m below budget, largely as a result of the lower expenditure (in particular the Q1 and Q2 expenditure variance (£282m)), offset by higher debt as a result of higher inflation adjustments to index linked debt (£163m); and
- the RAB being £444m lower than budget due to actual inflation (used to index the RAB) being lower than assumed in the budget (£371m) and spend on projects that can be added to the RAB being lower than budget, largely due to the underspend on Thameslink (£81m).

Forecast gearing of 68.8% at the end of the year is also within the regulatory limit but higher than the budget by 0.4%, for largely similar reasons as for the year to date.

10 – Financial efficiency index (FEI)

According to Network Rail, at the end of Q3 the financial efficiency index was 0.8 worse than the target of 77.0 largely due to overspend on opex (0.2) and higher than budget track unit costs (0.3). The full-year forecast is 1.4 worse than the target of 75.3 largely due to higher than targeted track renewal unit costs (1.3).

Track unit costs have more impact on the full year forecast as Network Rail's budget assumed they would fall during the year. However, they were significantly worse than in Q2 as Network Rail is finding it harder to achieve efficiency savings.

2. England and Wales summary data



Q3 2008-09 (14 September 2008 - 3 January 2009)

Key performance indicators (KPIs)		2007-08		2008-09			2008-09
		Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Year end forecast
2 - Passenger train performance	Actual at end of quarter	89.2	89.8	90.0	90.4	90.8	n/av
Public performance measure (PPM) (MAA) (%)	Industry target	88.9	89.4	89.9	90.1	90.6	90.6
3 - Network Rail delay minutes	Year to date actual	6.9	8.9	1.8	3.6	6.3	8.2
Number of delay minutes (millions) attributed to Network Rail	ORR target	7.0	9.0	1.8	3.8	6.4	8.3
5 - Asset failures	Actual 4-weekly average	3,518	3,606	3,707	3,590	3,416	n/av
Number of infrastructure incidents	Previous year's actual	3,909	4,160	4,008	3,892	3,518	41,765
6 - Asset stewardship index (ASI)	Actual	0.60	0.57	0.57	0.56	0.53	n/av
Composite of seven asset condition measures	Network Rail target	0.64	0.62	n/av	n/av	n/av	n/av
7 - Activity volumes (track renewals only)	Actual cumulative	97.5	97.2	95.1	97.3	97.2	99.6
% Activity compared with plan	Network Rail target	100	100	100	100	100	100
8 (a) - Expenditure (OMR)	Year to date actual	3,517	4,705	1,064	2,234	3,791	5,189
Operating, maintaining and renewing the network	Year to date budget	3,759	5,058	1,150	2,432	4,074	5,395
(£ millions)	Variance %	-6.4	-7.0	-7.5	-8.1	-6.9	
8 (b) - Expenditure (enhancements)	Year to date actual	466	719	235	505	893	1,199
Enhancing the network	Year to date budget	530	710	260	571	943	1,163
(£ millions)	Variance %	-12.1	1.2	-9.6	-11.6	-5.3	
10 - Financial efficiency index (FEI)	Year to date actual	78.9	78.9	81.9	81.1	78.5	77.3
Adjusted cost of operations, maintenance and track renewals	Network Rail target	78.5	77.9	80.6	79.8	77.9	75.9

3. Scotland summary data



Q3 2008-09 (14 September 2008 - 3 January 2009)

Key performance indicators (KPIs)		2007-08		2008-09			2008-09
		Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Year end forecast
2 - Passenger train performance	Actual at end of quarter	90.2	90.6	91.0	91.0	90.9	n/av
Public performance measure (PPM) (MAA) (%)	Industry target	89.5	90.0	90.7	90.5	90.4	90.6
3 - Network Rail delay minutes	Year to date actual	439.7	604.8	104.0	228.1	440.4	586.2
Number of delay minutes (thousands) attributed to Network Rail	ORR target	642.0	820.0	160.6	324.7	589.0	762.0
5 - Asset failures	Actual 4-weekly average	345	393	369	342	347	n/av
Number of infrastructure incidents	Previous year's actual	425	423	423	338	345	3,903
6 - Asset stewardship index (ASI)	Actual	0.65	0.70	0.68	0.71	0.66	n/av
Composite of seven asset condition measures	Network Rail target	0.91	0.97	0.91	0.85	0.76	0.71
7 - Activity volumes (track renewals only)	Actual cumulative	98.6	96.1	111.5	94.8	90.6	96.2
% Activity compared with plan	Network Rail target	100	100	100	100	100	100
8 (a) - Expenditure (OMR)	Year to date actual	355.3	482.0	99.0	186.0	350.5	487
Operating, maintaining and renewing the network	Year to date budget	401.9	553.5	105.0	198.0	381.6	
(£ millions)	Variance %	-11.6	-12.9	-5.7	-6.1	-8.1	500
8 (b) - Expenditure (enhancements)	Year to date actual	15.1	23.9	14.0	37.0	69.6	109
Enhancing the network	Year to date budget	24.8	38.7	16.0	43.0	77.1	
(£ millions)	Variance %	-39.1	-38.2	-12.5	-14.0	-9.7	115
10 - Financial efficiency index (FEI)	Year to date actual	79.1	77.3	74.2	75.5	72.0	70.9
Adjusted cost of operations, maintenance and track renewals	Network Rail target	77.8	77.9	73.4	75.7	69.2	69.7

3. Scotland



Key performance indicators (KPIs)		2007-08		2008-09			2008-09
		Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Year end forecast
2 - Passenger train performance	Actual at end of quarter	90.2	90.6	91.0	91.0	90.9	Year end target
Public performance measure (PPM) (MAA) (%)	Industry target	89.5	90.0	90.7	90.5	90.4	n/av
3 - Network Rail delay minutes	Year to date actual	439.7	604.8	104.0	228.1	440.4	586.2
Number of delay minutes (thousands) attributed to Network Rail	ORR target	642.0	820.0	160.6	324.7	589.0	762.0

2 – Passenger train performance

PPM MAA for Scotrail at the end of Q3 was 90.9%, an improvement of 0.7% over Q3 last year.

3 – Network Rail delay minutes (Scotland route)

Network Rail was well ahead of both regulatory and business plan targets for Q3. However, there were some particular problems associated with renewal of the signalling at Glasgow Central over the Christmas and New Year period, as described on page 20.

3. Scotland



Key performance indicators (KPIs)		2007-08		2008-09			2008-09
		Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Year end forecast
5 - Asset failures	Actual 4-weekly average	345	393	369	342	347	n/av
Number of infrastructure incidents	Previous year's actual	425	423	423	338	345	3,903
6 - Asset stewardship index (ASI)	Actual	0.65	0.70	0.68	0.71	0.66	n/av
Composite of seven asset condition measures	Network Rail target	0.91	0.97	0.91	0.85	0.76	0.71
7 - Activity volumes (track renewals only)	Actual cumulative	98.6	96.1	111.5	94.8	90.6	96.2
% Activity compared with plan	Network Rail target	100	100	100	100	100	100

5 – Asset failures

The general trend of slowly improving infrastructure reliability across the whole of the network is generally matched in Scotland where asset failure incidents were 4% less than in Q3 last year, although asset failures fell in only 11 of the 19 infrastructure categories. There remain specific categories where reliability is worse than the average, for example points failures, where delay minutes were up by 20% and failures per unit over 4 years are worst in class. Although this is 20% better than a peak of two years ago it remains 20% worse than 4 years ago. We welcome the improved analysis by Network Rail which has highlighted this issue and shall be seeking further explanation and proposed solutions for improvement.

Delay minutes due to signalling system and telecoms failures were up by 19% on the same period last year, reflecting concerns about non-track assets for the network as a whole. A large proportion of this can be attributed to the post-commissioning system problems at the West of Scotland signalling centre at Glasgow central. We are soon to meet with Network Rail to understand the causes of the problems and its plans to resolve them.

Although the number of train detection failures is relatively small, there was an increase of 59% compared to Q3 last year. We will be seeking an explanation for this increase from Network Rail.

6 – Asset stewardship index (ASI-R)

The equivalent regional measure (the ASI-R) was 14% better than Network Rail's internal stretch target, but had fallen back by 1.5% compared to last year's result.

7 – Activity volumes (track renewals only)

Network Rail renewed 156km of plain line track in Scotland in the year to date compared to a planned output of 173km. This shortfall represents 10% of the planned target and we expect Network Rail to recover this volume in the last quarter. It is not of concern at this stage of the year.

Twenty nine switch and crossings were renewed compared to a planned volume of 41. The year-end target has also been reduced, from 49 to 41. As explained in the GB section, we have asked Network Rail to explain this reduction.

3. Scotland



Key performance indicators (KPIs)		2007-08		2008-09			2008-09
		Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Year end forecast
8 (a) - Expenditure (OMR) Operating, maintaining and renewing the network (£ millions)	Year to date actual	355.3	482.0	99.0	186.0	350.5	487
	Year to date budget	401.9	553.5	105.0	198.0	381.6	500
	Variance %	-11.6	-12.9	-5.7	-6.1	-8.1	
8 (b) - Expenditure (enhancements) Enhancing the network (£ millions)	Year to date actual	15.1	23.9	14.0	37.0	69.6	109
	Year to date budget	24.8	38.7	16.0	43.0	77.1	115
	Variance %	-39.1	-38.2	-12.5	-14.0	-9.7	
10 - Financial efficiency index (FEI) Adjusted cost of operations, maintenance and track renewals	Year to date actual	79.1	77.3	74.2	75.5	72.0	70.9
	Network Rail target	77.8	77.9	73.4	75.7	69.2	69.7

8 – Expenditure variance

Comparison to budget: Year-to-date

Total expenditure in Q3 was £21m (9.5%) lower than budget and year-to-date total expenditure was £39m (8.4%) below budget. The year-to-date variance was largely due to:

- underspend of £30m on renewals (13.6%), largely due to the deferral of work to Q4 (£25m) as a result of project delays, efficiency savings of (£2m) and an insurance recovery in relation to 2007-08 costs (£2m); and
- delays on enhancement projects of £8m (9.7%), particularly on Airdrie – Bathgate (£2m) and safety & environment schemes (£4m), which is unlikely to have a material impact on improving railway services.

Comparison to budget: Full year

For the full year, Network Rail is forecasting to spend £19m (3.0%) less than budget, largely due to:

- underspend of £10m (3.4%) on non-track renewals largely due to efficiency savings of (£5m), an insurance recovery in relation to 2007-08 costs (£2m), deferral of work to CP4 (£5m), partly offset by overspend on track renewals (£3m) as a result of increased

unit costs; and

- delays on enhancement projects of £6m (5.2%), particularly on Airdrie – Bathgate (£5m), which is unlikely to have a material impact on improving railway services.

10 – Financial efficiency index (FEI)

According to Network Rail, at the end of Q3, efficiency was 2.8 worse than the FEI target of 69.2, largely due to higher track unit costs (3.3) mainly as a result of a correction of the FEI track budget, offset by savings in maintenance costs (0.7). The full year forecast is 1.2 worse than the target of 69.7 largely as a result of higher track unit costs (2.1), where the year-to-date variance has been partially reversed, offset by savings in maintenance costs (0.8) including a delay in the introduction of new terms and conditions for maintenance staff.

Even though most of the underlying issues are the same, the FEI position in Scotland is different to the GB position because some of Network Rail's efficiency targets in Scotland are different. This reflects the relatively low track renewal unit costs in Scotland and the mix of work, i.e. in Scotland there is a higher proportion of track renewal activity where Network Rail achieves higher efficiencies.

4. Major projects and other significant issues



West Coast route modernisation (WCRM)

As planned, Network Rail completed all 21 required milestones consistent with the introduction of the new timetable on 14 December 2008. A commissioning timetable was introduced which provided all the planned service changes, including faster journey times and improved frequencies for Virgin trains, but with a small number of services omitted. Network Rail stated that the remaining services would be introduced as soon as performance was at the required levels and in the event the remaining timetabled services were introduced on 16 February. The greatly changed new timetable during the last four weeks of the quarter appeared to be fundamentally sound.

We are currently monitoring Virgin services on a daily basis.

Meanwhile there are a further four milestones to be delivered in 2009, mostly associated with further improvements to the power supply system and additional linespeed improvements. We will monitor delivery of these milestones to ensure Network Rail meets its funded obligations.

OLE incidents - WCML

In the first half of January there was a series of significant overhead line equipment (OLE) incidents on the West Coast main line. Seven of these occurred south of Crewe over five days, during a period of cold weather. We estimate that the overall revenue loss to passenger train operators due to these incidents was around £5m, with a further impact on passengers due to the inconvenience caused valued in excess of £5m.

The most significant in terms of delay followed a light plane crash near Colwich, when the plane struck the overhead equipment. One incident involved a neutral section (physical isolated section inserted in the contact wire to create discrete electrical sections). Three were caused by poor or faulty installation during renewals over a period of time and the other two appeared to be isolated component failures, but nevertheless resulted in substantial delay to passengers and freight.

Recently there has also been a substantial increase in damage to the pantographs on the Virgin Pendolino fleet. Network Rail was initially slow to respond to this problem. However this changed and good joint work by Network Rail and Virgin identified a cause (poorly aligned elements of the overhead line) which is being corrected. Network Rail and Virgin Trains are continuing to monitor both the OLE system and the trains. Network Rail is now carrying out detailed investigations into all the OLE failures and will brief ORR to explain its conclusions on the causes of each incident. Although we are satisfied that there was no direct connection between the incidents we will want to understand any possible common factors in respect of the quality of original installation, inspection and the subsequent maintenance regime, and to understand the remedial actions that are being taken. We will report more fully in the next monitor.

Possessions overrun

Following the engineering overruns at Rugby, Liverpool Street and Shields Junction in January 2008, we found Network Rail in breach of its network licence and issued a Final Order. This required Network Rail to deliver real improvements in its project management by 31 December 2008. In accordance with the requirements of the order Network Rail has now delivered a submission demonstrating why it believes that it has delivered the necessary improvements.

The independent reporter, as well as reviewing this submission, is currently auditing a sample of Network Rail projects, to be completed in March. We will then review the reporter's findings and conclude whether Network Rail has fulfilled its obligations and met the terms of the final order.

4. Major projects and other significant issues



Implementation of GSM-R

An important milestone has been reached by the GSM-R project in securing a bulk order for the cab mobile units from the supplier, Siemens. Crucial to this achievement was the agreement with train operators on the functionality required.

This illustrates one of the key issues for the project, that of managing all the interfaces across the range of affected parties. There are still many significant issues to be resolved and the project must continue to build on the co-operation between all parts of the railway industry if the national roll-out is to succeed.

The trial in the Strathclyde area continues to provide the project with better operating knowledge but is not yet free of technical issues. There is increasing pressure to complete the trial with formal authorisation so that national roll-out can take place and to avoid delay to the Cambrian ERTMS trial, which will require GSM-R to be authorised. We have briefed Network Rail on the expectations for successful authorisation.

Great Eastern line re-wiring project

This project will see Network Rail replace the existing fixed tension overhead line equipment from Liverpool Street to Chelmsford and Southend with a modern balance weight constant tension system.

The £144m project continues and the first stage of rationalising the existing system is underway. The planned Christmas work of simplifying the catenary in the Bethnal Green area was completed on time.

First stage work will be followed by installation of the new wiring system out to Chelmsford by 2012 with the Southend branch delivered in CP5.

European rail traffic management system (ERTMS)

With a new technology and an evolving understanding of the new technical standards required, Network Rail is tackling many issues which are also faced by its European counterparts.

The Cambrian trial is addressing the challenge of finding an acceptable way of introducing ERTMS onto an existing railway whilst maintaining the existing train service. Many European railways are experiencing similar difficulties. Whilst this problem is still to be fully resolved, the increasing awareness of migrating an operational railway has already led to a re-assessment of how to introduce the new system onto the Great Western main line without introducing major risk into the timetable.

The processes of compliance with national and European legislation are also proving to be complex, with a lack of familiarity in the process as well as in the technology. There is a need for all parties involved across Europe to work closely together and to share experiences to find a clear and common understanding, to avoid the technical challenges being overshadowed by logistical and procedural issues.

Regenerative braking

This project made limited progress in the last quarter.

On the 750v DC system in SE England, 20% of the Southern Electrostars now operate with regenerative braking but software issues delayed its extension to the remainder of the fleet. These have now been resolved and 50% of the fleet will soon be operating with regenerative braking. Testing continues on other fleets (Class 460s, Junipers and Networkers).

4. Major projects and other significant issues



£ million	2008-09							
	Year to date				Full year			
	Actual	Budget	Variance	Variance %	Forecast	Budget	Variance	Variance %
ACR funded	439.7	449.2	-9.5	2.1%	596.9	493.1	103.9	21.1%
Government sponsored	331.9	428.3	-96.4	22.5%	482.6	538.2	-55.7	-10.3%
NRDF	78.8	48.9	29.8	-61.0%	114.9	77.9	36.9	47.4%
Out performance	46.7	37.7	8.9	-23.7%	61.6	64.7	-3.1	-4.8%
TOC sponsored	62.8	64.6	-1.7	2.7%	88.5	101.9	-13.4	-13.1%
Planning adjustment	3.4	-8.3	11.7	141.0%	-36.8	2.1	-	n/av
Total	963.3	1,020.4	-57.1	-5.6%	1,307.7	1,278.0	29.7	2.3%

ACR funded

Expenditure on ACR funded schemes is forecast to be £104m over budget in 2008-09. This is due to a number of drivers, the most significant being:

- as reported last quarter, re-profiling of the WCRM project activity means that the full year forecast is above budget (by £38m in the latest estimate); and
- an overspend of £52m is forecast on Network Rail sponsored projects, driven by development work on CP4 projects (for instance an unbudgeted £13m is expected to be spent on Crossrail development this year).

Government sponsored

The picture is similar to Q2, with lower than expected spend on Thameslink (overall an underspend of £58m is forecast for the year) and the Access for all programme (£15m underspend forecast for the year), as reported last quarter.

The King's Cross programme has progressed faster than planned, particularly the Network Rail plant room and access ramp, and so an overspend of £22m is expected this year.

Network Rail discretionary fund (NRDF)

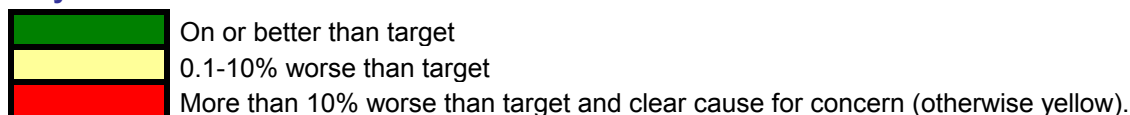
Network Rail is now expecting to spend £37m more than budgeted this year, with the forecast for the portfolio little changed since Q2. Over the control period, including the £115m forecast to be spent this year, this amounts to £190m of the total fund of £200m.

TOC sponsored

As reported last quarter the significant variances from budget in this category are an expected underspend on West Coast main line car park enhancements (of £25m over the year) and an overspend on the Waterloo gating project. Expenditure on the South West Trains programme of franchise commitment enhancements is expected to be under budget this year by £11m (against the budget of £15m).

5. Key to tables and data notes

Key:-



n/app	Information not applicable
n/av	Information not available at the moment

For Expenditure variance KPI 8 (a) only



< -20% -15% -10% -5% 0% 5% 10% >

For Expenditure variance KPI 8 (b) only



< -30% -25% -20% -15% -10% -5% 0% 5% 10% 15% 20% 25% 30% >

Data notes

Where an indicator is shown to be red, we will assess the reasons for this and determine the extent to which there is cause for concern and what Network Rail needs to do to improve the situation.

Introduction

Safety data is measured monthly and published by Rail Safety and Standards Board (RSSB) each calendar quarter.

All other data is four-weekly based. There are 13 four-week periods (P) in a financial year. The period quarters (Q) are set out below.

Q1	Q2	Q3	Q4
P1-3	P4-6	P7-10	P11-13

KPIs 1, 2 and 6 are actual values at the end of quarter.

KPI 2 is a 'moving annual average' (MAA), the total for the previous 13 four weekly periods divided by 13. (This definition of MAA makes it a lagging indicator). Latest quarter is a provisional estimate.

Network-wide KPIs 1 and 9 are not disaggregated below network level.

For KPI 2, an increase over time denotes improvement.

For KPIs 3, 4, 5, 6 and 10, a decrease over time denotes improvement.

For KPI 6, the ASM has been replaced by the ASI for the whole network and ASI-R for routes. Historic targets for this measure are not available.

Figures in the monitor are the latest available and may be further updated.

Please note that RSSB PIM data and National rail trends are based on calendar months. The Network Rail monitor reflects the Network Rail four-week periods and quarters split by period rather than by calendar month. This results in some small differences in figures reported.

Targets

The 'actual' data is compared with the appropriate ORR target where one has been set. Otherwise Network Rail's own internal target (to meet Network Rail's required overall outputs as set by ORR) is used. Where this is not available or appropriate, the data for the corresponding period in the previous year is used as the comparator.

6. KPI definition and developments



KPI 1 Safety risk

The train accident precursor indicator model (PIM), which is managed by the Rail Safety and Standards Board (RSSB), measures the risk per million train miles of a train accident, e.g. collisions, derailments, fires or striking a road vehicle at a level crossing. The measure incorporates 84 precursor events in six groups. Around 65% of the risk arises from events largely under the control or the responsibility of Network Rail, e.g. track geometry, infrastructure failures, and environmental factors (such as flooding or land slips). Significant risk arises from public behaviour, such as level crossing misuse, trespass and vandalism and the management of these represents a major challenge for the industry. The PIM risk indicator was set to a reference value of 100 at the end of March 2002 and it provides a measure of the change in risk relative to this level. A reduction in the index is therefore beneficial, denoting a reduction in risk.

KPI 2 Passenger train performance

The public performance measure (PPM) represents the percentage of trains run by franchised passenger operators arriving at their destination within a specified lateness margin (five or ten minutes) and making all planned station stops. This measure captures all delay causes (including Network Rail and train operators). For simplicity, the Great Britain monitor reports PPM for all franchised TOCs. The England & Wales monitor reports PPM for all franchised passenger operators with the exception of First ScotRail. The Scotland monitor reports only First ScotRail PPM, as it accounts for the great majority of passenger train mileage in Scotland.

KPI 3 Network Rail delay minutes

This measures the total number of minutes delay to all passenger and freight trains where the cause of delay is attributed to Network Rail.

For England & Wales and for Scotland, we compare Network Rail's delay to passenger trains with our derived target.

KPIs 4 (a) & 4 (b) Passenger and freight delay

These measures are delay minutes per 100 train kilometres. For franchised passenger operators, we compare delay against a derived regulatory target. For freight operators, we compare delay against Network Rail's target.

KPI 5 Infrastructure assets - Asset failures

This is the total number of incidents causing train delay where the cause is the responsibility of Network Rail. This measures the performance of assets where failure directly delays trains.

KPI 6 Infrastructure assets - Asset stewardship index (ASI) (GB only)

This is a composite index that includes elements (e.g. track geometry) where degradation is more gradual and does not necessarily cause train delays. This established measure has been adopted on an interim basis, but we intend to work with Network Rail to develop an indicator which covers a wider range of infrastructure assets and which has no overlap with the asset failures measure.

KPI 6 Infrastructure assets - Asset stewardship index - routes (ASI-R) (England and Wales, and Scotland)

The asset stewardship measure has been replaced by the ASI-R. The ASI-R is similar to the network-wide ASI and differs only in detailed respects for the track geometry, which in part explains the difference in the national figures shown in the England and Wales, and Scotland monitors compared with those in the Great Britain monitor. The split ASI-R also uses different baselines for different parts of the network, which prevents direct comparisons of local asset stewardship with this measure. We expect Network Rail to develop this measure to facilitate benchmarking across the network.

6. KPI definition and developments



KPI 7 Activity volumes

While Network Rail can analyse its expenditure by class of work, at present it can only provide a detailed measure of the volume of track renewals. Network Rail has been reviewing for some time a composite measure encompassing the vast majority of infrastructure renewals. A draft of this has now been received and is under review. The activity volumes measure in this monitor remains confined to track renewals.

KPI 8 (a) & (b) Expenditure

(a) compares Network Rail's expenditure on operations, maintenance and renewals (OMR) against the company's own budgeted expenditure.

(b) compares Network Rail's expenditure on enhancements (excluding third party funding and investment) against the company's own budgeted expenditure.

KPI 9 Financing (Debt to RAB (regulatory asset base) ratio)

This financial indicator measures Network Rail's net debt position as a percentage of its regulatory asset base (RAB). This is one way of measuring the financial gearing of the company and is used for regulatory purposes.

The actual figures are based on actual net debt (on a regulatory basis) divided by the company's own valuation of the RAB at the end of the period concerned. The budget figures are calculated similarly, using budgeted net debt and budgeted RAB.

KPI 10 Financial efficiency index (FEI)

This index shows changes in Network Rail's operating, maintenance, and renewal expenditure, normalised to take account of changes in the volume of work required.

Total maintenance expenditure is normalised for the change in equivalent track miles (a measure of track type, length, traffic tonnage and speed). Plain-line track renewals expenditure is normalised for changes in the volume of track renewed. Expenditure on switch and crossing renewals is normalised for changes in switch and crossing volumes renewed. Expenditure on major resignalling schemes is normalised by signalling equivalent units. A base score of 100 reports efficiency levels equivalent to actual performance in 2003-04, scores below this represent efficiency gains beyond 2003-04 performance.

Major schemes

There is no single performance indicator for projects. We monitor projects which are specifically funded in the ACR2003, for emerging expenditure against the regulatory settlement, and for the delivery of projects compared to high-level objectives.

Feedback

We welcome feedback on the content and format of this publication. If you have any comments, please contact Alan Hayden-Case on 020 7282 3861 or alan.hayden-case@orr.gsi.gov.uk