

Network Rail announces start of £45bn rail improvement plan with climate change in its sights

April 3, 2024



Network Rail has announced that its five-year, £45.4bn* rail improvement plan begins today (Wednesday 03 March).

It added that the plan aims to deliver a simpler, better, greener railway, which provides the best level of train performance possible, and is better equipped than ever to cope with the extremes of climate change.

Commenting on the improvement plan, Andrew Haines, Chief Executive, said: “Delivering a better railway for passengers and freight users is at the heart of our new five-year investment plan. Tackling climate change, safely improving train performance, adapting and responding to changing commuter habits whilst managing an ageing infrastructure requires the whole industry to rally for the benefits of all rail users.

“Whilst there are challenges and opportunities ahead, our mission is constant – we’re here to connect people and goods with where they need to be. The railway is part of the fabric of our everyday lives and has been for generations. It provides essential services to society, underpinning economic growth and our plans will support that over the next five years – a period that will mark the railway’s bi-centenary.”

Rail Minister Huw Merriman added: “Our railways are at the heart of many people’s daily lives and getting

us to where we need to be, whether that's to family and friends, work, education or holiday destinations.

"That's why the network must be fit for the future, with the resilience to handle extreme weather while offering the reliability and level of service our passengers deserve. I am confident the plan set out by Network Rail today will help keep our railways on track for the coming years."

Commenting on the plan, Railway Industry Association Chief Executive Darren Caplan said: "The Railway Industry Association welcomes the publication this week of Network Rail's strategic priorities over the next five years, and its emphasis on boosting the performance and reliability of the rail network in the next Control Period, CP7.

"RIA member companies from across the rail supply chain stand ready to support the delivery of the key work streams in the various NR regions, and will work closely with NR to improve the railway's climate resilience.

"However, as we have regularly said, a rail investment strategy needs to include a comprehensive enhancements plan, given the significant infrastructure upgrades which lie ahead. We again urge the Government to publish a plan which sets out which rail schemes in Network North, the Integrated Rail Plan for the North & Midlands, and the Rail Network Enhancements Pipeline it intends to bring forward over the next five years. Doing so will enable NR and rail suppliers to ensure they are ready to carry out and co-ordinate both renewals and enhancements work in CP7, in a way which delivers maximum value to both rail customers and taxpayers."

A range of activities to help the railway cope with climate change

Over the five years to 2029, Network Rail will invest around £2.8bn in activities**and technology that will help it better cope with extreme weather and climate change, which will help deliver a more reliable and better performing railway. Examples include:

- Increased investment in looking after thousands of miles of drains, cuttings and embankments to make them more weather resilient.
- Recruiting almost 400 extra drainage engineers who will increase the care and maintenance of our drainage assets to be able to better handle increased and intense rainfall.
- Hundreds of key operational staff will attend Network Rail's new 'weather academy' to help make them 'amateur meteorologists', better able to interpret forecasts and make better operation decisions such as when and where to slow trains in stormy conditions.
- More than 600,000 metres of drains will be built or rebuilt, redesigned or see increased maintenance to enable our railway to cope with much heavier rainfall and reduce flooding.
- Targeting over 20,000 cuttings or embankments for attention, with over 300 miles being strengthened through renewal and refurbishment and over 900 miles seeing planned maintenance.
- Installing significantly more 'smart' movement sensors to cuttings and embankments giving early warning of any changes enabling engineers to react, hopefully before a full landslide.
- Installing CCTV at high-risk flooding sites to enable better and faster response.

- Introducing new technology that will help us keep services running safely in difficult conditions, such as: GUSTO – which uses topography to better predict windspeeds distinguishing valleys, trees and buildings enabling trains to run at higher speeds during stormy weather; Precise ‘real-time’ world leading rainfall forecasting, detailing weather conditions every 500m that will link with asset condition data for even better train service management.

Andrew continued: “Climate change is the biggest challenge our railway faces. The extreme weather of the past year that has seen an unprecedented 14 named storms, has taken its toll on our railway – with experts predicting more of the same to come. We are responding to that challenge with a huge investment in making our railway more resilient and better performing for rail users during such events.

“We can never completely ‘weatherproof’ our railway, but we can be better prepared and mitigate the worst that Mother Nature throws at us, now, and into the future, to keep passengers and services safe and moving.”

A breakdown of spending in CP7

Network Rail is funded in five-year chunks, called control periods, with the current one, CP7 running from 1 April 2024 to 31 March 2029. The funding and activity to be delivered is agreed in a long and complex three-year process working closely with the Office of Rail and Road, the Department for Transport and Transport Scotland.

Over the course of CP7 Network Rail will spend:

- £19.3bn on renewals (replacing old assets with new as well as investing in other capital expenditure to create a railway fit for the future e.g. digital signalling).
- £12.6bn on maintenance (day-to-day upkeep of current assets) with regions spending 6 per cent more on maintenance activity compared with CP6.
- £5.3bn on support functions (things like safety & standards, timetabling, IT, HR).
- £4.4bn on operations (things like signalling, stations, network controls).
- £1.8bn ‘risk fund’ (a pot to be used as and when to cope with significant unforeseen events).

Through CP7 Network Rail’s income will come from grants from Governments (England & Wales and Scotland) – £29.8bn – track access charges from train operators – £13.8bn – and commercial income (retail, property, freight) – £1.7bn.

As well as targeting climate resilience, improving the broader day-to-day performance of the railway for passengers and freight users is a critical area for focus and investment, by our whole industry.

Commenting on train performance, Andrew said: “Train performance has been suffering and the industry must come together and make this, and tackling climate change, our main focus.

“Our role is to deliver a safe railway that people can rely on, whatever the weather, with trains that turn up and arrive at their destination on time, and where passengers have confidence they are in safe hands. This is what we must deliver daily and what we should, and will, be held to account for.”

Network Rail’s focus on improving train performance will include:

- Reducing the impact of external factors, including weather impact, fatalities, trespass and vandalism – one of the biggest causes of delays – by harnessing new technology.
- Reducing infrastructure failures with over 5,000 kms of track being targeted for replacement or heavy maintenance as well as over 3,000 sets of points (rail that moves enabling trains to switch tracks) and heavy investment in new signalling.
- Building the capability of the workforce with investment in training and new technology to improve decision making and cross-industry working.
- Improving timetables to remove bottlenecks, conflicts and unrealistic timings at and between stations.
- Faster recovery from incidents so fewer trains and customers are delayed when things happen.

Andrew concluded: “Over the next five years we aim to re-join track and train with a new structure at the heart of our railway with a guiding mind, at arms-length from Government. This would create a simpler railway to better respond to the needs of rail users with its constituent parts joined up with common objectives and incentives, delivering for passengers and freights users.”

Rail Partners also responded to the plan, with Director of Policy Robert Girgis commenting: “Network Rail’s plans take place when the railway is facing a series of complex challenges including a delayed reform process.

“The funding is fair given the wider financial backdrop, but it still represents a real terms reduction at a time when network performance is below what customers expect and the impact of extreme weather on ageing infrastructure is likely to increase into the 2030s.

‘To deliver a better, more reliable railway, it is essential the regulator holds Network Rail to account over the next five years to ensure that it delivers its plans efficiently and whoever wins the next election gets on with rail reform.”

*£45.4bn is in cash prices (£40.6 in England and Wales, funded by the Department for Transport, and £4.8bn in Scotland, funded by Transport Scotland) – with this funding covering the five-year period from 1 April 2024 to 31 March 2029.

** climate resilience activities includes core renewals and maintenance that will deliver primary weather resilience benefits.