



# Network Rail's Transformation Plan

Update September 2017

# Network Rail's Transformation Plan

In July 2016, we published 'Delivering for our Customers'; our plan to transform our organisation in order to deliver the services that passengers will want and need in the years ahead. Our plan is built around five key themes:

- customer focused;
- cost competitive;
- commercial;
- culture; and
- capacity.

You can read the original plan, and the update we published in February 2017, at [www.networkrail.co.uk/transformation](http://www.networkrail.co.uk/transformation)

## Introduction from Mark Carne

Britain has one of the safest, most reliable, and fastest growing railways in Europe. Our massive Rail Upgrade Programme reaches a crescendo in the next 18 months as massive projects like Thameslink, Crossrail, Great Northern Rail, Great Western Electrification, Edinburgh to Glasgow electrification all complete.

What a change is happening! But with soaring passenger growth, Government and the rail industry face a key challenge – how can we improve performance and drive innovation, whilst reducing the cost burden on government and passengers?

The answer will involve radical change on behalf of the industry. In recognition of this, in July 2016 I published our plan to transform Network Rail from an inward facing monopolistic organisation, to an open, outward, customer focused, efficient and competitive one. It squarely addresses the challenges of the past, and is based on three underlying principles:

- Becoming relentlessly customer focused, with aligned incentives between devolved Network Rail routes and train operators – bringing ‘track’ and ‘train’ together for the benefit of local passengers.
- Using competition, internally and in the external market, to drive innovation and efficiency. This will open up the railway, reducing the monopolistic mindset of state supported industries, and will require us to learn new skills and behaviours.
- Attracting third party funding, capturing some of the economic value that improved railways create through jobs, housing and growth.

We have already made significant steps forward, particularly in relation to devolution and alignment with our customers. But we now need to take this to the next level, and accelerate the pace of change, to drive better investment decisions in the industry and reduce the financial burden on government.

This report sets out the work that is now underway to increase efficiency and contestability, driving transformational change internally and across the rail industry. This work has already started, and will be a key priority through the whole of our next five year funding period. Transformational change needs resilience, determination and focus. To that end, I have appointed a new director of transformation and efficiency, who will be responsible for ensuring these initiatives are delivered and that cost consciousness is embedded across the organisation.

This is a manifesto for radical change, and we cannot deliver it alone. Working as one railway, however, we can meet the challenges facing the railway of today and deliver the improvements needed for the railway of tomorrow.



**Mark Carne**  
Chief Executive

# Summary of our transformation journey to date

Network Rail is changing. We are creating customer-focused businesses, demonstrably meeting customer needs, with clear accountabilities, able to make decisions quickly. Our vision is of a company founded on high-performing devolved route businesses operating within a national framework.

- We have devolved into nine route businesses, placing accountability closer to customers and passengers, so that decisions can be more relevant to their needs and taken faster. These businesses will continue to evolve and grow in strength as capabilities develop and the new regulatory regime, focused on the route businesses, becomes established.
- We are aligning track and train by creating shared targets between Network Rail and train operating companies, focused on what passengers want and holding the industry to account through independently chaired Route Supervisory Boards when it doesn't deliver. Future franchises should build on this approach.
- We have restructured so that we can deliver externally market tested services to our devolved businesses, bringing a 'do or buy' mindset to all Network Rail services.
- We are changing our approach to infrastructure projects so that we lower costs, drive innovation and create meaningful contestability through a review that is jointly sponsored with the Secretary of State of the whole enhancements process.
- We are creating a culture of continuous improvement to make Network Rail 'Better Every Day'.
- We have set up the System Operator to help make sure the railway is planned for, and operates, as a whole. This will also enable informed investment decisions based on transparent economic analysis. And we have established the Technical Authority to set and maintain high standards of technical excellence and facilitate effective knowledge sharing. Our Standards will be the best in the industry because they will be open to the industry to challenge.
- We are leading the railway industry in the drive to deliver a Digital Railway, a whole industry change project that can be a world first, in turn creating export opportunities.

Britain's railways are extremely complex, with deeply embedded norms of behaviours and ways of working. It takes time to completely change a large national organisation but our transformation plan is beginning to bring real benefits for passengers and our customers. It is the right strategy. There are encouraging signs of green shoots and a clear plan to accelerate the pace of change, now and over the next five years.

# 1. Transformation phase one – devolved route businesses in a national framework

Central to our transformation plan is our vision of a company based around high-performing devolved route businesses, operating within a national framework. We have made significant progress in this area over the last two years.

To bring decision-making closer to passengers, we have devolved the day-to-day business of running the railway to nine routes (see appendix two). Each has its own managing director and senior leadership team, responsible for making the decisions about the work undertaken in their area as well as securing third party funding and investment.

In autumn 2016, we announced new route leadership structures to make sure each route has the capacity and capability to deliver an increased focus on project delivery, customer expectations and third party funding, as well as day-to-day operational excellence.

Each managing director works closely with the train and freight operating companies (TOCs and FOCs) on their route, and our approach to scorecards (the set of targets by which we measure our performance, and determine performance-related pay) has been essential to creating closer alignment with our customers. In 2015 we introduced route-based

scorecards (in addition to a national scorecard), and in 2016/17 we began consulting with TOCs and FOCs on what our targets should be. 60 per cent of route performance targets are now developed in conjunction with the local TOCs and FOCs.

To embed this further, we are also working with the Department for Transport, Transport Scotland and Transport for Wales to improve alignment between the targets set for TOCs in their franchises and our own targets.


To help hold the industry to account, we are setting up Route Supervisory Boards to oversee the delivery of joint scorecard elements. We have piloted this approach with GWR on the Western route, with an independently chaired board, and Transport Focus representation so that the voice of the passenger is heard when performance targets are set. Further Boards for Wales and for the East Coast Main Line were announced in August 2017, and we are on track to have a Supervisory Board in all routes by spring 2018.



## Our devolution timeline



- 2015**
- We produced performance scorecards for each route for the first time, moving away from working to national targets set by the ORR and towards ones set locally by customers.
  - The ScotRail Alliance was established, bringing us together with Abellio ScotRail to jointly deliver safety, performance and financial improvements for the benefit of passengers.
- 2016**
- We reviewed all services held in the ‘centre’ of Network Rail. 440 roles have now been devolved to routes, strengthening their capacity and capability to deliver better outcomes for customers.
  - We established the Freight and National Passenger Operators route, to sit alongside our eight geographically-bound routes. This will enable the needs of freight operating companies, and those train operating companies whose interests extend across geographical routes, to be understood and addressed.
  - We increased the authority of route managing directors so that they are able to authorise 99 per cent of all maintenance and renewals work carried out.
  - We created the Route Services Organisation with a clear competitive ‘make or buy’ mandate to drive efficiency.
- 2017**
- We piloted our first Route Supervisory Board, on the Western Route. The Board brings train operating companies and Network Rail together, with an independent chair and with the passenger voice represented by Transport Focus, to oversee progress on joint priorities. Further Boards have since been announced for Wales and for the East Coast Main Line.
  - We developed our route performance scorecards in conjunction with train and freight operating companies. All train performance measures are now set at a route level.
  - We strengthened our route leadership teams, to make sure they have the skills and experience needed to deliver their enhanced responsibilities.
  - We will establish a new team to focus on customers in the north of England. They will work with Transport for the North and the Department for Transport to drive improvements and investment in the region.
  - We have acted on the recommendations of the Hansford review into project contestability, opening up Network Rail to competition in the delivery of projects, which will drive efficiency and encourage new sources of funding.

- 
- 2018**
- All routes will have a Route Supervisory Board, or equivalent, by spring 2018.
  - The regulatory settlements for 2019-2024 will be agreed with the ORR. These will cement devolution as the model for the railway and new governance relationships will be developed.
  - Network Rail will act as a holding company of route based businesses.
  - Property will be sold for reinvestment or for new housing opportunities.
  - Route Services will become market competitive to face the full power of competition in 2019.
  - Route businesses will grow capability to meet the new responsibilities for project sponsorship, business development and raising new sources of funding.
  - The System Operator will have an independently chaired supervisory board to ensure independence, transparency and adequate capability to fulfil its new industry role.
  - The Digital Railway will start to become a reality with the commissioning of Thameslink and delivery of traffic management schemes.

- 2019-2024**
- Each route will have its own regulatory settlement. They will have their own income streams, business plans and targets which they will be accountable for.
  - Routes will drive economic growth, jobs and housing through better relationships with the communities they serve.
  - Routes will drive efficiency through better decision making, closer to the customer.
  - Route businesses will drive better performance through collaborative working with TOCs – One Railway.
  - Routes will be free to use suppliers other than Route Services Directorate.
  - The System Operator will ensure transparent economic assessment drives rational investment decisions.
  - The Technical Authority will develop world class technology, have industry supported standards and help define and recruit the skills needed for a modern railway.
  - Third parties will increasingly fund and build projects on and around the railway.
  - The Digital Railway will accelerate, progressively replacing conventional signalling, unlocking capacity, increasing reliability and reducing costs. Conventional signalling replacement will cease during CP6.
  - Major projects may be financed by private sector investment.

# 1. Transformation phase one – *continued*

## Case study

In Scotland, there has been real improvement in performance as a result of closer working with the train operating company as part of the ScotRail Alliance. We now have a clear joint performance improvement plan. Key managers from both organisations help spot problems and agree solutions much more quickly than before.

Transport Minister Humza Yousaf wrote recently to the managing director of the Alliance to thank staff for their efforts, saying “the continuing improvement is testament to the focus from each and every one of you and a key part of making our rail services one which passengers both desire and deserve”.

To support these route businesses, our central support functions create the organisational environment which enables the routes to innovate and drive improvements at a local level. A diagram of how our routes and support functions work together can be found in appendix two. Central support functions provide assurance to the Executive Committee and Board on key activities being carried out by routes and route support, including safety, finance, asset management and project delivery, as well an overall framework for assuring and reporting Network Rail’s overall performance. Moving into CP6<sup>1</sup>, as routes grow their capability, we will continue to assess whether activities are most efficiently delivered by routes or route support functions.

Two critical supporting functions are the System Operator and the Technical Authority. The System Operator leads on long term planning of the rail network, identifying the improvements that will be needed to meet future demand, and on allocating capacity across the network to allow for the creation of a national timetable. The Technical Authority is responsible for engineering, safety, maintenance, operations, sustainable development, quality, security and information. It also leads research and new technology development, knowledge management across the company, competency frameworks and skills.

## Case study

The Freight and National Passenger Operators route has been working closely with freight operating companies to free up scarce capacity on the network. 4,702 unused freight paths have been released as a result, with

Virgin Trains East Coast, ScotRail and Great Western Railways all taking advantage of the new capacity to offer additional passenger services. This was only made possible by the work of the System Operator.

<sup>1</sup>Control Period 6. Control Periods are the five year timespans which we work to for financial and planning purposes. CP6 is the period 2019-2024.





## Route regulation

From 2019, we will see the next major step change in devolution, with each route (including the Freight and National Passenger Operator route and the System Operator) having a separate regulatory determination from the ORR. We will begin publishing regulatory accounts and annual returns at a route level, alongside our route scorecards.

As well as recognising and reinforcing the scale of decision-making at a route level, this change offers the opportunity for comparison between routes thereby incentivising innovation that improves efficiency and performance. We are working closely with the ORR to develop a series of metrics that will allow people to compare the relative performance of each route in a consistent and transparent way. This comparability will drive innovation and sharing of best practice.

We will continue to review the overall assurance and control provided by the corporate core to ensure that is effective following the introduction of route based regulation. It will be important that the overall control framework for CP6 enables routes to run their business without being unnecessarily constrained by central functions. For example, routes need to be able to deliver the most appropriate decisions to replace or maintain assets. This flexibility is regarded by routes as a key benefit of devolution.

## 2. Transformation next steps – working with the industry to change how railway work is delivered

Whilst transformation to date has been largely internal, aimed at getting the company in the right shape, we know that to achieve real transformational change we must look outwards and work with our partners in the rail industry and beyond.

We want to break down traditional boundaries to make it easier for others to invest in and deliver rail projects, and look at how we can work with train and freight operating companies, contractors and government in different ways so that together, as one railway, we can deliver improvements more efficiently and creatively.



## 2.1 Using franchises to drive competition in the delivery of infrastructure

We believe that rail franchises should be set with targets that align with what the infrastructure can deliver and with the targets set for the infrastructure provider. So we would expect the winning franchisee to commit to a level of performance that took into consideration the infrastructure's capability.

Our targets can then be developed jointly with and by the franchisee, so interests can be aligned. This would also allow our targets to be competed in the market, which would be a powerful way of driving competitive elements into an inherent monopoly. Those franchise operators who develop the most effective ways of working with us, and therefore driving up performance, will be advantaged in the bidding process.

We also see the franchise as a potential mechanism to deliver infrastructure improvements. This is now being explored for the new South East franchise, where it is planned that aspects of Digital Railway technology will be franchise requirements to be delivered by the train operating company.

## 2.2 Alliancing

We believe that greater collaboration in contracting is key to driving efficiency and delivery. Alliances create aligned objectives around target prices, encouraging partners to be innovative and to drive down costs. Conventional fixed cost contracting approaches can encourage the opposite behaviour in contractors; raising variations, working less efficiently but still being paid to deliver it. Others industries, notably oil and gas, have adopted deep alliances effectively and the railway must learn these lessons and apply them.

In CP5<sup>2</sup>, alliance contracts have outperformed conventional projects. Of the five major programmes being delivered through an alliance-type arrangement, there has only been a 1.3 per cent variance from the original costings. The Stafford Area Improvement Project, for example, used an alliance model of contracting. It was delivered a year early, and for only around a quarter of the initial cost estimate (£250m compared to £940m).



<sup>2</sup>Control Period 5 (2014-2019).

### 2.3 Encouraging third party funding, financing and delivery of rail projects

We strongly believe in the power of competition to improve performance. That is why, in July 2017, we announced our plans to introduce contestability into aspects of project delivery and renewals activity, and make it easier for third parties who want to work with us. You can read the full details on our website.

**We believe there are a number of clear areas of opportunity for third parties, including:**

- Third party delivery of Government/ Network Rail funded activity. Route managing directors will now be able to decide to put the delivery of projects or activities out to market if they feel it will offer improved value for money.
- Third party funded projects. If a third party has a particular project that they would like to take forward, and is in a position to do so, then the most effective model may be for them to take on responsibility for the funding, design, and build. We would advise on standards and on compatibility with, and protection of, the existing rail network.
- Third party financed schemes. We know there is considerable private sector appetite to invest in long-life secure assets such as railways. We are establishing a dedicated team to identify suitable opportunities for this.

**Actions we are taking to support this include:**

- Publishing a pipeline of opportunities for third parties, by the end of 2017, to provide greater visibility for those interested in investing in or delivering projects.
- Providing a better service to third parties. We will standardise our approach across our nine routes, develop a Service Level Agreement so third parties know what they can expect from us, and provide a single point of contact to act as a liaison with the different parts of Network Rail. We will trial this approach on the Anglia route in autumn 2017, before rolling out across Network Rail in spring 2018.

- Encouraging the industry to challenge our standards. Alongside our own review (see section 3.4), we are looking at how we could incentivise the industry to identify where standards are driving unnecessary cost and complexity. This is a radical and innovative approach that goes even beyond the recommendations of the Hansford review.
- Ensuring we have the capacity to support third parties develop, fund and deliver schemes. We must welcome third parties not freeze them out.
- Making our Chief Financial Officer responsible for governance and reporting of third party involvement, and the senior escalation point for all disputes.

### 2.4 Developing role of the System Operator

The System Operator function already plays an important role in ensuring 'joined up' planning across the rail network. We believe that this could evolve further. There is a stronger role for it to play in franchises, for example, to make sure proposed specifications are consistent with outputs. The industry, through RDG, now agrees that it should provide much broader economic analysis to support decisions in the railway and within the wider transport sector, so that railways can be seen as a part of an overall transport solution that supports the wider economy. We believe the System Operator should be a source of transparent, high quality industry-based analysis for Government and potential investors, and help underpin improved decision-making about the future of the railway within the overall transport context. Demonstrating openness and transparency in its economic analysis and decision-making should be a key part of the future agenda of the System Operator.

To demonstrate this change in role, capability and transparency, we will implement an independently chaired supervisory board as a shadow in 2018 ready for full operation by CP6, when the System Operator will be subject to a separate regulatory settlement.

## 3. Transformation next steps – driving efficiency

We recognise that our plans for CP5 were not as robust as they needed to be. They were top down impositions, not bottom up reality based plans. We will make sure that CP6 is planned and delivered differently.

We are producing fully-costed, deliverable efficiency strategies as part of our CP6 Strategic Business Plan, which will be submitted to government in December 2017. These will focus on a number of areas where we can increase productivity, remove inefficiency or increase existing efficiency, including:

- Driving Operations, Maintenance and Renewals efficiencies by:
  - Increasing productivity (improving access, delivery efficiency and Better Every Day)
  - Reducing Inefficiency (commercial changes, Renewals recovery)
  - Increasing Existing efficiency (intelligent infrastructure, Digital Railway, and employment cost savings).
- Delivering Lower cost Infrastructure projects by:
  - Reducing project costs (optimising economic value, challenging scope, and Alliances)
  - Maximising an assets life-cycle value (challenging standards)
  - Increasing contestability (driving innovation, increasing private sector funding and publishing potential upgrade projects).

### Driving transformation

**We know that change can take time. New ways of working can take time to embed and some people can find change unsettling. But we must increase the pace of transformation so that we hit the ground running in 2019, when we start our next five-year funding period.**

**Our newly appointed director of transformation and efficiency will oversee this work, and we will also seek learning from other companies who have successfully managed major change. This programme of work will include:**

- **looking at our internal structures to see how we can speed up decision making and make accountabilities clearer;**
- **establishing what processes need to change in order to drive future efficiencies; and**
- **defining the right measures of efficiency.**

### 3.1 Culture Change – Better Every Day

Key to driving efficiency is the empowerment and engagement of the whole organisation. Lean and continuous improvement techniques have transformed manufacturing efficiency for over 50 years and the core principles and process tools have since been used successfully in transformation of all kinds of businesses from law firms to the BBC to National Grid.

Our Better Every Day programme is founded on the same principle: that an empowered workforce challenging waste, striving for customer value, and making many small changes will deliver safety and quality improvements and significant savings. Since its launch in 2015, over 5,000 people across the organisation have received training in lean techniques and we are committed to training 50 per cent of our workforce by the end of 2019. This approach has already realised c£35m of benefit, and the business plans we are developing for CP6 reflect further efficiency to come from the growing culture of lean and structured continuous improvement.

## Case studies

- On the London North Western route, the implementation of a range of lean initiatives have reduced overhead line failures by 50 per cent, saving 22,000 delay minutes<sup>3</sup> and £10m in compensation to train operators.
- On the Wessex route, information sharing prompted by attending a 'lean academy' has resulted in them adopting a quicker and more cost effective way of repairing rail heads (the top part of the rail, that train wheels run on). By comparing the method they had been using with the one used by colleagues on the South East route, they found that the latter saved £8,700 per repair and also resulted in repairs that lasted longer. The new approach is now being rolled out across the Wessex route.
- In Derby, lean techniques were used to find a more effective way of managing stock. By bringing in standardised processes to determine what stock they needed and monitoring stock levels effectively, they have been able to generate £174,000 of savings.

Whilst some of these changes might seem small, the significance is that they have been driven by individual members of staff feeling empowered to improve how we work. This is the culture we want to embed across all parts of Network Rail.

Cost consciousness needs to be instilled in all of our colleagues as part of this overall culture change. We will do this by drawing on lessons learned from our work to instil a safety culture across the organisation, which resulted in a 44 per cent reduction in our employee injury rate in three years. We achieved this through management focus, clear performance measures and monitoring, and holding leaders to account. We do not tolerate failure to report safety incidents and we must now drive this same culture in regards to costs.

We have already begun this process, changing our performance scorecard measures to include cash compliance as well as financial performance<sup>4</sup>. We have also changed how performance-related pay is calculated, so that failure to meet financial targets has a greater impact on the payments staff receive. And we have started an internal communications campaign aimed at driving cost-consciousness across the organisation and emphasising the importance of becoming more efficient.

## Case study

Following an eight week internal communications campaign to encourage staff to book the cheapest possible train tickets, the number of staff booking 'anytime return' tickets reduced by over 40 per cent.

<sup>3</sup>Total number of minutes delay to passengers and freight trains.

<sup>4</sup>Our Financial Performance Measure considers how we are performing against our income, Opex, renewals and enhancement expenditure budgets. Cash Compliance measures how well we have remained within our funding envelope in total (it is an aggregation of all variances against our Capex, Opex and income budgets).

### 3.2 Improving train performance

Improving train performance is good for passengers, but also saves us money – we pay train operators compensation when their services are disrupted. We have a number of plans to improve train performance, including:

- creating incident management teams across all routes to help respond to major incidents more quickly and effectively. We have already recruited Senior Incident Officers and are finalising the recruitment of their teams;
- continuing to increase the effectiveness of our maintenance regime, to improve the reliability of our infrastructure;
- completing major upgrades to the network, including our upgrade of Waterloo, Crossrail readiness and the introduction of Traffic Management in Wales; and
- using continuous improvement and lean principles to reduce delays per incident and the need for temporary speed restrictions.

### 3.3 Project scope

The most effective way, by far, to reduce the cost of infrastructure projects is for the project to be specified and scoped correctly in the first place; this is undoubtedly the key lesson from the disastrous initiation of the Great Western electrification project several years ago. We will strengthen our project governance to require every project to demonstrate how varying outputs specified by funders (usually DfT) would impact on funding needed, so that the trade-offs between outputs and costs are fully understood and that the optimum return for the tax payer/ funder is achieved. We will also encourage continual challenge of a project's scope, to make sure all aspects of a project are really necessary. From September 2017, any project not selecting the lowest life cycle cost design option must have a business case signed off by the route business managing director. These will also be reviewed annually by the Chief Engineer and reported to the Executive. We will not announce project costs and timescales until adequate design has been done to understand risks. The failure to do this in the past brought the whole industry into disrepute.

### 3.4 Reviewing our standards

Policies and standards are extremely important for ensuring safety and best practice, and standardisation can help keep costs down. Some standards, however, can also drive disproportionate costs. Our Technical Authority function is updating all our internal policies and standards, and will complete this process by March 2018. This is in addition to encouraging the industry to challenge our standards (see section 2.3 on page 12).

### 3.5 Improving access

In order to maintain and improve the rail network, we need access to the track. Some of our work can only be completed when there are no trains running, which is an increasing challenge when trains are running later into the evening and starting earlier in the mornings. Given this, and given that we are required to pay train operators compensation if we need services to be cancelled in order to carry out our work, we need to make sure we are using the times when we have access as effectively as possible as well as looking at how we can increase track access.

It currently takes around 90 minutes, for example, to isolate the electrical current on the track and make it safe for engineers to start work. Decreasing the time this takes would increase productivity.

Equally, the closer relationships that we are building with train operating companies as a result of devolution should help us come to agreements around access that can benefit all parties. On the Wessex route, for example, we worked with train operators to agree longer (eight hour) access windows, allowing record volumes of ballast cleaning and track renewals in single shifts. As a result, we have significantly improved the condition of the track and reduced the number of speed restrictions, saving around £5m. To have delivered this using conventional methods would have required 22 weekends of line closures.

We have conducted a full analysis of the access available to deliver renewals in the first three years of CP5, and are using the learning to inform the development of our CP6 access plans.



### 3.6 Delivery efficiency

Our lean training programme (described in section 3.1) is bringing new and better ways of working right across the organisation. The healthy competition that is developing between routes is driving innovation in delivery, with the most effective methods being shared and adopted elsewhere. We are also taking forward specific initiatives to drive efficiency in delivery in CP6, for example:

#### *Ensuring Infrastructure Projects delivers effectively for the routes*

We are currently undertaking a jointly sponsored review with the Secretary of State of our Infrastructure Projects division, who deliver major projects as a service to the devolved route businesses. We are conducting a series of interviews with stakeholders, and benchmarking against best practice in other organisations, to develop a model that is excellent at delivering projects for the new devolved route businesses.

#### *Multi-functional delivery teams*

Traditionally, our staff have worked in discipline-based teams (track, signals, overhead lines etc.) which means that one piece of railway may be inspected on a number of occasions by different teams. In Bristol, a trial of multi-disciplinary teams has resulted in a 24 per cent reduction in points and signal failures, a 22 per cent reduction in delays resulting from points and signal failures, a 23 per cent reduction in associated compensation costs to train operating companies and a 26 per cent improvement in the work delivery rate.

#### *Refining work specification*

We know that the easiest way to deliver work efficiently is to have a clear, detailed specification that does not change. We are developing standard 'minimum specification' designs that can be re-used on multiple projects. We have identified the highest value opportunities and prioritised them for standardisation. The benefits of this work will come to fruition throughout CP6.

### 3.7 Knowledge sharing

In order to maximise the benefits of developing a lean culture (see section 3.1), we need to facilitate effective knowledge sharing to turn excellent route-led initiatives into organisation-wide best practice.

The Better Every Day programme is leading this work, and has developed a four pronged approach to knowledge sharing: 1) setting up forums to share face to face; 2) setting up an online knowledge hub to share digitally; 3) using internal communications to showcase best practice or lessons learned; and 4) using benchmarking internally and externally to identify best practices.

### 3.8 Contracting and procurement

In 2016, we established our route services directorate in order to maximise the benefits that come from economies of scale in delivering the services each of our route businesses will need – everything from IT support to the purchase of materials. The services provided by route services must be competitive compared to the outside market. If they are not competitive the routes have the right to procure elsewhere – an important cultural change within Network Rail.

The route services directorate has recently conducted a market testing and benchmarking exercise, reviewing 80 per cent of its services. As a result of this benchmarking, we are making a number of improvements to our processes and contracts, and may decide to outsource some operations that we currently supply in-house. Overall, we expect to make efficiencies of £60-100m per year as a result of these changes.

## Case studies

- Rail grinding is an essential part of track maintenance, keeping the top surface of the rail in good condition to allow for a smooth train ride. When the contracts for the operation and maintenance of rail grinders came up for renewal, we went out to market and negotiated much more competitive agreements. As well as saving £5.5m a year, the new contracts have also resulted in improved performance (97.2% success, compared to 90.3% under the old contract).
- Historically, haulage was contracted on spot rates. Route services formed a partnership with a leading logistics company, and reduced the supplier base to a small number of key hauliers. This has resulted in a £3m cost saving in the first two years.



### 3.9 Technology

#### *Intelligent infrastructure*

We need to have a good understanding of the condition of our infrastructure in order to plan our maintenance and renewals work most efficiently.

We are increasingly using train-borne inspection devices, including radar and ultrasonics, to monitor the condition of our tracks. For example, we are rolling out the use of Plain Line Pattern Recognition technology, which uses cameras to scan the tracks in place of manual track inspections, which will save £7m a year from 2018/19.

We believe that much more can be done through the use of technology and, as part of their work providing leadership in this area, our Technical Authority function is currently trialling or deploying a number of initiatives including the increased use of drones, acoustic sensing and satellite monitoring.

#### *Digital Railway*

The Digital Railway programme is an industry-wide initiative, led by Network Rail, for the UK to transform the way trains are controlled on the network through the use of digital signalling. Plans are currently being developed for five of our routes to be enabled with varying levels of digital technology, which would enhance the performance of over 70 per cent of passenger train journeys. Whilst Digital Railway will require substantial up-front investment, it would be a step-change in improving the efficiency of the rail network, by allowing trains to run more closely together and therefore creating capacity to allow more trains to run. The industry must move faster. It cannot be sensible to continue to renew signalling systems with outdated technology when our trains have the capability to operate fundamentally differently, bringing greater capacity, reliability and lower cost. Digital Railway is a strategic imperative for Britain's railway.



### 3.10 Work bank planning and stability

Alongside improved access, work bank stability is absolutely essential in helping us plan and deliver work efficiently. To increase overall planning stability we are developing Route Asset Management Plans, five year documents that are updated on a rolling year-on-year basis. This approach will drive a step change in our delivery in CP6.

### 3.11 Renewals

Improving efficiency in how we deliver renewals has been a key focus for us. As well as issues such as improved track access and work bank stability (covered above), we are implementing specific actions, that will deliver benefits throughout CP6, relating to renewals including developing standardised specifications for some activities.





## Conclusion

Britain's railway network is critical to its economic success – creating jobs, regenerating communities, transporting people and goods around the country. We all need a railway that is able to meet the challenge of growing demand and to find ways of paying for the improvements that are needed. These are not challenges that Network Rail alone can meet but, as this report sets out, we are transforming how we operate to ensure that we can do our bit. We will be a very different organisation at the start of CP6 than we were at the start of CP5 and I am absolutely confident that we are on track to deliver the improved railway needed for Britain's future success.

# Appendix one

## – key transformation milestones



- 2014**
- Reclassification of Network Rail.
  - Matrix organisation put in place – devolved operating model, System Operator and Technical Authority formed.



- 2015**
- Introduction of route-based scorecards.
  - Lean transformation programme ('Better Every Day') begun.



- 2016**
- Freight and National Passenger Operator route formed.
  - Route services directorate formed.
  - Increased delegated authority to routes.
  - Hansford review established.



- 2017**
- Route Supervisory Board pilot established.
  - 80 per cent of route services market tested.
  - Route scorecards developed with train and freight operating companies.
  - Trial of new approach to third party involvement.
  - CP6 business plans submitted, including detailed efficiency strategy.
  - Pipeline of third party opportunities published.
  - Elements of Digital Railway introduced at Wales Operating Centre and Upminster IECC.





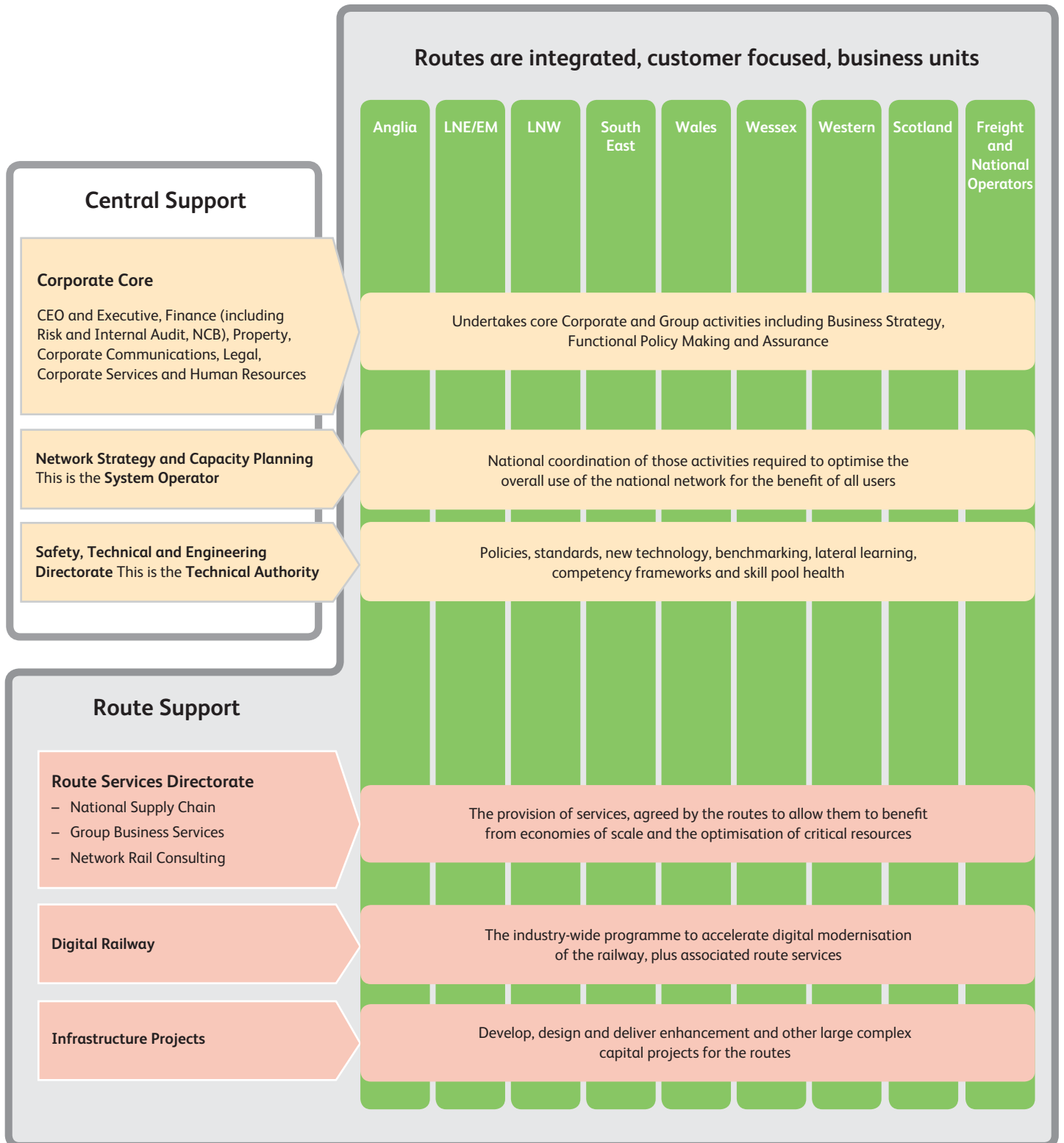
- 2018**
- Supervisory Boards in place in all routes.
  - New approach to third parties rolled out across Network Rail.
  - Systems in place to enable right time starts to train services after engineering works.
  - Commercial incentives in place to encourage the industry to challenge our standards.

- 2019**
- **Start of CP6**
  - Route regulatory settlements in place.
  - Rollout of plain line pattern recognition technology.
  - 50 per cent of employees lean trained.

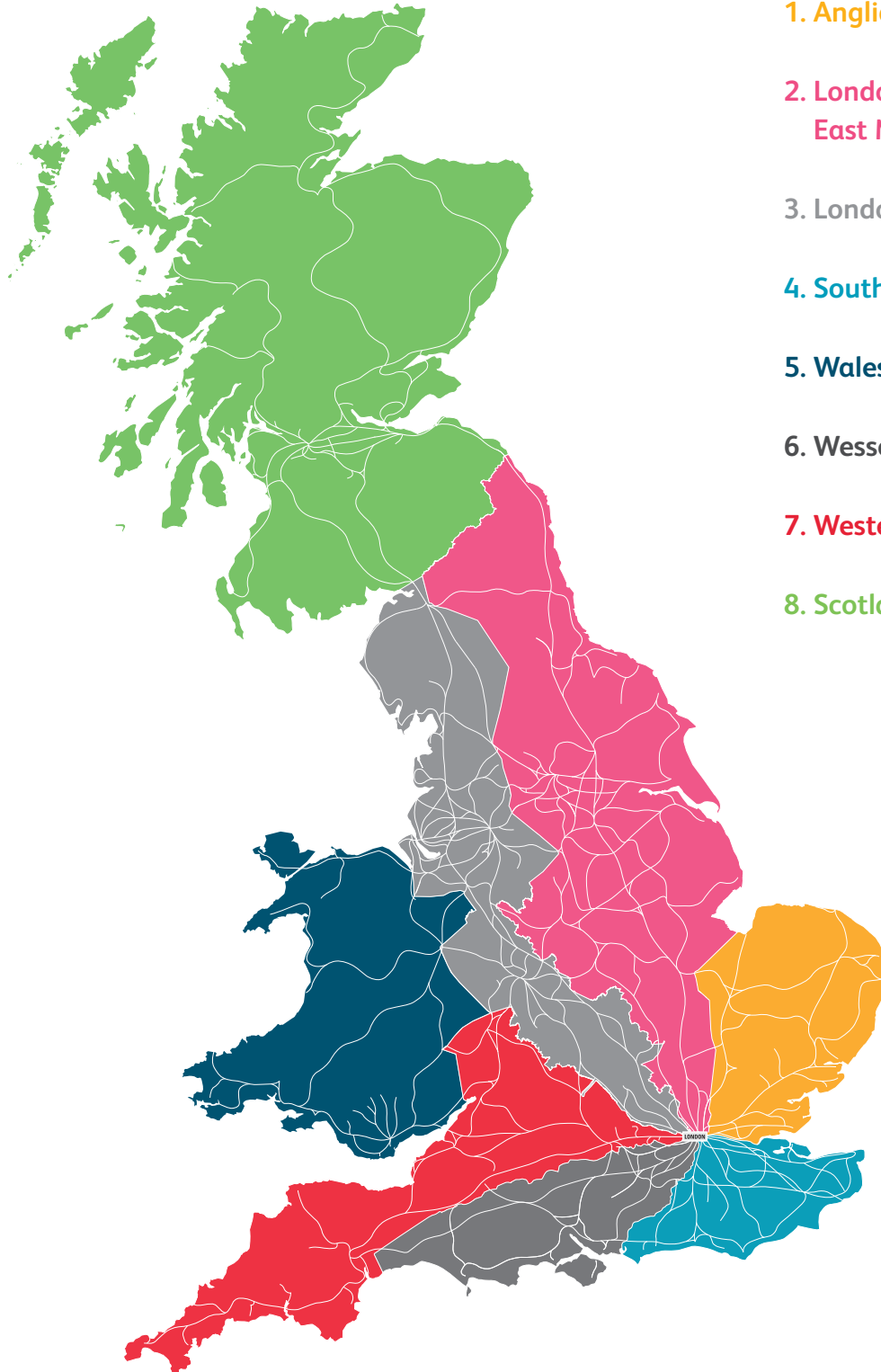
- 2024**
- Digital technology in place to improve capacity and performance, and reduce costs, on five routes.
  - We will have reduced our annual operating costs by £60-100m as a result of Route Services transformation.

**A full update on all our transformation milestones is available on our website.**

# Appendix two – how Network Rail works



# Our routes at a glance



1. Anglia

2. London North Eastern and East Midlands (LNE&EM)

3. London North Western (LNW)

4. South East

5. Wales

6. Wessex

7. Western

8. Scotland

**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***