SHORT FORM STRATEGIES

22nd February 2019

Table of Contents

Short Form Strategy Introduction

A Short Form Strategy (SFS) is required from each major subject area within the business to support the routes and national functions in developing their strategic plans. The SFSs are live documents – updated at least annually – that provide clarity around the content of our national strategies and are readily visible to all interested parties across the business, industry partners, and the wider general-public. They are written at a summary level, and many will reference more detailed supporting documentation.

Each SFS is split into four key components:

1.   The future, or "where we want to be"
2.   The present, or "where we are now"
3.   How we move from the present to the future
4.   Activities

The Short Form Strategies provide detail at a national level of how the various corporate objectives will be achieved or supported. Many of the SFSs convey particular key pieces of information that are vital for routes and/or national functions to be aware of when they construct their plans.

Asset Management Capability - Short Form Strategy

NetworkRail

Purpose & Scope

Excellence in Asset management requires that we align decision making in our planning and delivery of works in order to provide infrastructure that supports the delivery of our corporate objectives. Realising this goal in a whole life cycle cost efficient way will require improvement in our people, process, tools and information capabilities to get better every day and to embrace the opportunity created by new technology.

This strategy represents the key areas of improvement necessary to support excellence in Asset Management and thereby deliver enhanced reliability in our infrastructure, maximising the availability of our network for the use of customers.

This advice is advisory at this stage. Further discussion with Routes will determine the mandated projects & milestones.

The Future – Where we want to be

As the largest public sector asset management organisation in the United Kingdom, we want to be recognised as excellent in what we do and are seen a benchmark against which organisations worldwide assess their own asset management capabilities. We are already favourably placed against this objective, but recognise that continuous improvement and adapting our approach to exploit the potential of new technology is essential for us to retain and further develop our pedigree. Additionally in looking to the future needs of our customers it is clear that we must transform our infrastructure management to determine when and where intervention is necessary to prevent a disruption to services. The intended future improvement is ambitious covering all aspects of asset management.

- We have used the intelligence gained from past reviews / benchmarking to understand what needs to be done to achieve our objectives. Future success will be secured by more widespread implementation and use of the capabilities across the business together with the definition of the specific competencies we need in a single coherent Engineering and Asset management competency framework. This will compliment the development, upskilling and deployment of new means of control and analysis tools. This will require a blend of network wide actions on asset policies, standards, information and tools, together with Route owned improvements (as defined within each Route's Strategic Plan)

- To compliment the need to improve business uptake of the asset management capabilities on offer, we are adopting accordance with ISO 55001 (the international standard for asset management) as a key measure of success, thereby testing and verifying that the business is applying the agreed framework for asset management in an aligned and integrated way.

Through the above we will: Demonstrate that we accord with best practice processes (measured against ISO 55001), reduce service affecting failures by 10% across CP6, support efficient delivery by demonstrating more stable plans, improve competency levels against our specified requirements, maintain our data quality at grade A2 and demonstrate learning from our governance and assurance activity. As a consequence we will demonstrate a reduced demand on future whole life cycle costs of managing our infrastructure.

The Present – Where we are now

- This Strategy confirms the continuation of a long standing journey of improvement. Our rate of progress has been confirmed through the use of acknowledged best practice 'excellence model' (assessment undertaken every two years since 2006). This demonstrates continuous improvement in the approaches we have applied to planning, risk based decision making, interventions, data & information, people competency and risk and review processes. This measure also confirms our improvements in integrating historical 'silos' such that our planning and delivery supports an improved 'organisation' delivering greater availability and capability of our infrastructure system.

- Since devolution we have been investigating how to help routes identify their own prioritised improvement initiatives from a route-specific, rather than simply a network wide, generic perspective. All Routes are now using the International Standard for Asset Management (ISO 55001) as a framework to guide and demonstrate the effectiveness of their uptake of the asset management tools / techniques. A 'gap analysis' toolset is being used to baseline each Route's position. This will be in place for all Routes by December 2017. Results are available for four routes so far and this shows that a select number of individuals have the understanding and are using the techniques. The results also demonstrate that greater familiarity and use is required across Routes, maintainers and delivery organisations.

How we will get to the future

The priority areas that provide the foundation for improvement are structured within 4 key areas:

- **Alignment of Planning & Delivery capabilities.** Improving process for collaboration in decision making, planning and delivering asset management activities on our infrastructure, developing our capability to a point where we have a single recognised version of the plan in which all asset stewards and deliverers have been involved and contributed. (ISO 55000 & RAMP programmes)
- **People.** Enabling the required culture, competencies, leadership and organisation, by providing competency tools and training materials. Embedding the skills we need in each role, addressing key gaps and enabling succession plans to be put in place. (Engineering Capability Programme)
- **Data & Intelligence.** Exploiting technology to improve common access to our asset information systems, data and analytical tools, required to support the aligned business process. We will develop a capability where we can analyse and predict activity early enough to prevent a service affecting failure or unduly costly remedy (Our Intelligent Infrastructure programme)
- **Management Review.** Confirms how we will govern change, analyse risks and assure the asset management system such that we develop a common understanding of the system, where issues exist, where potential opportunities may lie, and agree structured means to learn and drive continuous/LEAN improvement.

Plan of activities (8-year horizon)

To EXIT CP5	CP5	
Theme	**Required Maturity**	**Agreed remedy**
Business Alignment	A single clear, adopted, reviewed and improved management system exists.	Adopt a common framework certified to iSO 55000
People	All Leaders are clear and agree on roles, accountabilities, how to collaborate and key areas of competency to improve .	Asset Management System Handbook, Training catalogue & Competency framework
Intelligence	A core information system is adopted aligned to ISO 55000 requirements. Separate analytical and visualisation tools support decision making & change control.	Ellipse Roadmap & Critical Predict and Prevent Toolset
Data	Data specifications exist and are aligned to process needs. Governance supports better data quality.	Assured management system within ISO 55000
Management Review	Business performance is transparent, the right metrics are systematically tracked, reviewed and acted on.	BPMF , One RAMP, Change control through Sharpcloud

To EXIT CP6	CP6	
Theme	**Required Maturity**	**Agreed remedy**
Business Alignment	Key processes are known, tracked and improved on a continuous basis (tested, refined and adapted) Process users are experienced and are able to demonstrate competence. Process deviations are low and outcomes are highly predictable.	Integrated Management System, Agreed RACIs,
People	Strategic resource plans are in place with an Increasing focus on data and information competency.	Engineering Capability Programme .Aligned Incentives/Op Model. Data competency training
Intelligence	Planning across all required disciplines aligned , with integrated decision support tools enable accurate plans. Advanced Analytics allow interventions to be targeted, and failures to be predicted and prevented where possible.	Intelligent Infrastructure. Ellipse exploitation & DSTs, EBAK. Supported by RD & T
Data	Information products known and value understood, and mapped to data specifications. Information insights from upskilled staff and analytics allow greater knowledge of infrastructure systems, allowing better decision making.	Intelligent Infrastructure supported by - Information Governance, & RD&T
Management Review	Demonstrable Improvements in the management system from review. Effective compliance processes. Continuous improvement projects, Standards and controls can be proved to be effective. Comprehensive benchmarking measures exist. Suppliers can be effectively managed.	Business Performance Management framework

Material changes in this version

Incorporates PBR decisions on ISO 55001 , Ellipse Roadmap and Sharpcloud.

Incorporates scope of Intelligent Infrastructure

Includes reliability objectives in planning guidance.

Confirms ISO 55001 to be used as a guide and to confirm alignment (not specific certification)

Identifies dependency to Chief Engineers Strategy

Continuous improvement

National Asset Management Review (internal)

Asset Management Excellence benchmarking work (2017/18)

PBR quarterly papers

Governance of specific projects. Asset management Strategic Theme Programme Board. Engineering capability programme Board.

Related documents

Asset Management Policy

Asset Policies

Asset Management System Guidance

Intelligent Infrastructure Roadmap

Ellipse Roadmap

Route Asset Management Planning guidance

Asset management competency framework

Capacity & Timetabling - Short Form Strategy

Purpose & Scope

Capacity Planning's long term vision is to deliver a zero defect timetable that's safe, robust and able to accommodates growth. It is the guiding mind for planning activities across the rail industry and is organised to deliver the following activities:

- capability and capacity analysis to support investment, service level and franchise decisions
- advanced timetabling activities in line with agreed Event Steering Groups
- development and delivery of the working timetable process, including leadership of industry steering groups to support timetable change, management of the timetable planning rules and delivery of permanent alteration for emerging operator requirements
- the weekly adjustment of the timetable for engineering work and short term operator requirements
- Ownership of the engineering access planning framework

As a part of System Operator, Capacity Planning aligns with the strategic planning teams to support effective relationships with route businesses.

The Future – Where we want to be

- Increased capability – process, organisation, technology and information – to deliver safe and high performing timetables that continue to accommodate growth
- To have a highly efficient and effective modelling, simulation and predictive analytics capability to improve key decisions in the end to end planning process e.g. franchise specification or capacity allocation when access is restricted
- More accurate rules, and increased systems automation, to develop a more granular timetable with the potential to release the quantum of train services without compromising reliability
- Delivery of customer focused professional services, ensuring industry wide participation in the production of quality outputs
- Ability to use all functionality offered in our planning systems providing greater precision and a higher level of automation eliminating redundant systems and better utilisation of scarce planner resource
- Timetable change delivered through a collaborative approach in full compliance with Part D of the Network Code and other relevant contracts

The Present – Where we are now

- Train service growth in CP6 is forecast at 10% . Timetable change is the final enabler or inhibitor to this
- Capacity constraints make finding paths more complex. Average time per schedule is expected to increase by ~1 min (175,000 hours of additional planning time across CP6 (equivalent to 56 heads annually)
- Our Continuous Improvement capabilities are still immature alongside a low level of process maturity
- Work load increase is forecast at ~20% based on Calendar of Events Levels of Late Change engineering work remains high
- Modelling is manual, slow and identifies operational challenge rather than calculating performance impact
- Growth is great news but M,R & E will increase alongside this. Protecting engineering access will further become an issue.
- ~90,000 502a incidents and 1.2m delay minutes are estimated across the control period, costing Sch. 8 forecast at ~£87m
- Historic retention of staff has been difficult, Approximately 20% of staff have left the department every year. Knowledge and productivity loss affect ability to cope with demand. Pay, leadership, technical career paths and overall structure and size of the business is being strengthened through a formal retention programme
- TPS performance is erratic, with users running on an unsupported version of the system
- The recent experience of the informed traveller recovery plan and development of the December 2018 timetable, have clarified the urgent need for whole industry reform, ranging from processes through planner competencies, systems, data and industry contracts

How we will get to the future

Organisational capability improvements
- Increase in headcount to meet the demand outlined in the calendar of events and the increases in complexity
- Review pay, leadership and technical career path options to retain planners and meet demand through improved competencies
- Develop production capability by creating an organisation that focuses on timetable development to complement the timetable delivery function. This includes a permanent advanced timetabling team
- Increased focus on train performance with introduction of an assurance capability and delay investigation resource increase
- Process Mapping and Continuous Improvement initiatives centred around reducing waste and increasing process maturity
- Develop planning capability in line with industry wide change readiness initiatives and lessons learnt
- Establish an industry Programme Management Office to analyse and report industry readiness for timetable change including infrastructure projects, rolling stock and Route/Operator operational readiness

Data Improvement Programme
- Programme aims to apply the principles of ISO8000. The industry will be consulted in order to design and deliver a data strategy enabling the delivery of a single platform to share data
- Investment in improving key datasets and data attributes where shortcomings will be identified

Whole System Modelling Programme
- Delivering increased modelling and simulation capability to inform better decision-making. This is split into short, medium and long term timescales to enable the programme to develop early tactical solutions and to work with suppliers to find innovative solutions to align and improve capabilities.
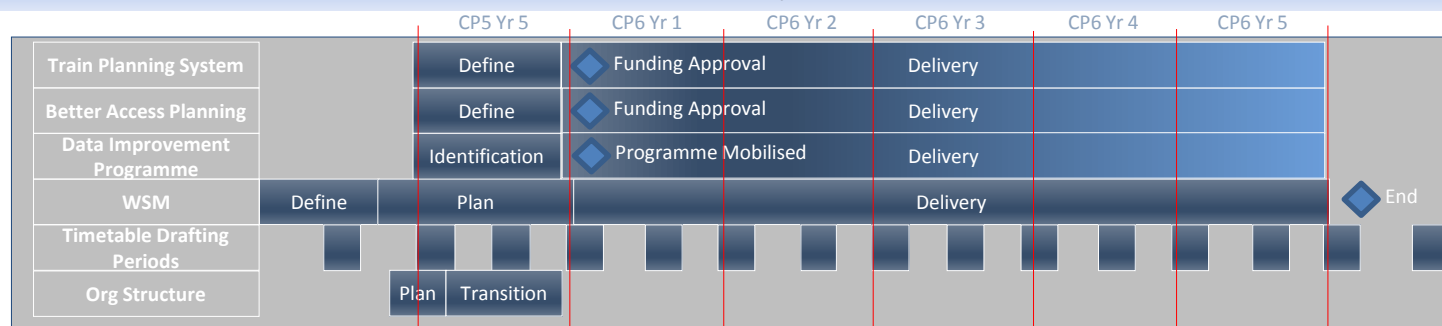
Better Access Planning Programme
- Review of current access planning processes, timescales and incentive mechanisms. Working with industry decision makers to develop a framework, improved processes, tools and assurance capability for access planning, stepping up to the System Operator obligations. Develop the PPS system in line with emerging business requirements for an optimised access footprint.

Train Planning System (TPS)
- Automated conflict detection, identification of available capacity
- Opportunities to embed integrated planning tools (ITPS) in Operator businesses
- Support readiness and integration with Digital Railway principles
- It is anticipated the project will consider dynamic running times, increased granularity of time increments, integration of TPRs into the train planning tool and TPR development strategy

Plan of activities (8-year horizon)

	CP5 Yr 5	CP6 Yr 1	CP6 Yr 2	CP6 Yr 3	CP6 Yr 4	CP6 Yr 5
Train Planning System	Define	Funding Approval		Delivery		
Better Access Planning	Define	Funding Approval		Delivery		
Data Improvement Programme	Identification	Programme Mobilised		Delivery		
WSM	Define	Plan	Delivery			End
Timetable Drafting Periods						
Org Structure	Plan Transition					

Material changes in this version

v6.0

Addition of text reflecting advanced activity on lessons learnt following May-18 issues.

Update of "Plan" section following submission of POAPs as part of SODP drafting

Continuous improvement

Capacity Planning CI strategy:

- Invest in building lean leadership capability
- Develop & apply lean skills and techniques
- Encourage continuous professional improvement
- Reward autonomy and accountability

Related documents

- CP5 Business plan updates
- CP6 Business plan
- Programmes on a Page (SODP consultation)
- CP Lean strategy

7

Contracts & Procurement - Short Form Strategy

Purpose & Scope

In collaboration with our functional partners Route C&P and Infrastructure Projects, Route Services C&P aims to provide our internal customers with proactive sourcing solutions that meet their fundamental **operational and safety** requirements, and also deliver:

Assurance of Supply, The highest **Quality** and **Service** standards, **Value for Money** via fit for purpose commercial contracts, **Innovative sourcing solutions** from the external supply base (including SME development) to support the future landscape of the rail network.

The Future – Where we want to be

Route Services C&P will be renowned as an expert business partner working collaboratively with route businesses, internal peers and the full range of external supplier partners to support Network Rail's commercial ambition to create competition and choice for the route businesses. In all that we do we will have a **sense of urgency** to reflect the nature of our customers' requirements.

We will achieve this by putting **Strategic Value Management (SVM)** at the core of what we do. SVM will be underpinned by three pillars: Route business requirements, Integrated Category Strategies and Supplier Segmentation. This approach will enable whole life costing, market readiness and supply assurance to be assessed more effectively. We will start all our activities by clearly understanding the route and other internal customer business (e.g. Digital Railway) objectives and how we can help to deliver them. Whilst researching and influencing the supply market to develop strategic opportunities, we will also execute tenders and contracts with a high level of excellence. Our roles, responsibilities and accountabilities will be clear to all who interact with the Route Services C&P group, and we will offer valuable insights into the third party spend under our control.

Striving for economies of scale through aggregating spend to the most appropriate geographic level, we will create a corporate framework that clearly identifies a local, regional and national approach to leveraging the total third party spend in the most effective and efficient manner.

Our **systems and processes** will be fit for purpose. Recognising the investment in BravoNR, we will utilise data analytics and measurement reporting techniques to plan early, deliver good quality contract management, and be proactive in offering benefits to our customers. We will identify, manage and mitigate risks across the network in order to enable reliable performance from our third party suppliers. Our processes will respect all **governance and assurance** requirements, and will also seek to be lean and timely in their execution.

In reporting Route Services C&P performance and delivery we will have clear, unambiguous and Route-**aligned metrics** ratified by Finance and the broader business to track delivery against targets which are recognised as ambitious but realistic.

As well as seeking economies of scale in our activities we will target economies of skill. Through a "**best people**" approach we will enable our people to be trained and developed on core activity (Strategic Value Management – customer relationship management, category strategy, supplier relationship management), such that our reputation with our internal customers and external supply base is professional and we are consistently highly regarded in terms of our performance. We seek to create an internal commercial community with our Route C&P colleagues, and provide professional leadership across the community, acting as a support network on all matters relating to third party spend.

Ultimately the return on investment from Route Services C&P will increase to reflect the cost of the function, the third party spend and the savings delivery profile, and will demonstrate increasing benefit to route businesses.

The Present – Where we are now

The internal C&P landscape has shifted since devolution and it is fair to say we are still experiencing teething problems with the efficiency and effectiveness of managing Network Rail's total third party spend. If our future state is to be achieved, as a company we need to develop a robust system-wide C&P strategy and a commercial community identity, and as Route Services C&P we need to develop a more Route-focussed operating model.

Whilst strides have been made in establishing BravoNR as the core system through which to manage data relating to third party spend, progress on establishing Strategic Value Management has not evolved quickly enough. This will be a focus over the coming months.

A strong governance approach has been established and with that platform the next steps will be to Lean the process of procuring goods and services, be responsive to immediate customer needs that could enable the running of the network, and drive maximum value for money.

Corporate Communications - Short Form Strategy

NetworkRail

Purpose & Scope

- Network wide corporate communications strategy
- Establishes overarching objectives for all external communications produced by Network Rail, also an operating framework for leadership communications with employees, as well as channels and initiatives to promote more collaborative working and higher staff engagement

The Future – Where we want to be

The CEO'S vision…

"A company that is **on the side of passengers and freight users**; that is **easy to engage with and a dependable partner**; a company **people are proud to work for**; **instinctively recognised as the industry leader**"

SUCCESS IS:
- Passionate about customer service
- Network Rail managed stations as centres of excellence
- Driven by ambition for passengers and freight users

Communications theme: passenger first

SUCCESS IS:
- Behaviours that encourage alignment and alliancing
- Devolution allowing closer alignment with customers and stakeholders
- A more agile and efficient organisation that delivers value for money for the taxpayer

Communications theme: dependable partner

SUCCESS IS:
- World class personal and operational safety
- The best train service performance ever
- Determination to say yes and deliver
- Developing and supporting our people in doing the tough stuff
- Where our people can truly say "I'm doing my best work and have the best boss I've ever had"

Communications theme: proud to work for network rail

SUCCESS IS:
- Influence where it matters
- Building skills and capacity where leadership is needed
- Clarifying accountabilities

Communications theme: industry leadership

The Present – Where we are now

Analysis of survey and performance data has revealed:

- Following three years of improved favourability across most measures, we are currently down across the board, with the May timetable and performance generally being the cause.

- The public's view of Network Rail is inextricably linked to the performance of the industry as a whole.

- Areas within our control to influence are: caring about passengers, being seen to be truthful, working well with the rest of the rail industry and showing leadership within it.

- Confidence in Network Rail has also declined, particularly among passengers but among them, and lineside neighbours, confidence scores are higher than among the general public – proving that those with a relationship with the railway have more confidence than those who do not.

- Insight-led safety campaigns can change public, passenger and staff behaviour leading to continuous improvement in a safe, effective railway.

- There is confusion as to what we are responsible for and do. Around half of the general public believe that we are responsible for the trains and fares.

- Those members of the public who have heard or seen positive stories are over four times more likely to be favourable.

- Most MPs say better delivery is the most important thing that Network Rail must do to improve their opinion of the organisation.

How we will get to the future

Communications objectives
- To build trust and confidence in Network Rail's ability to deliver for passengers and freight users
- To enable our people to play their role in delivery with pride
- To increase key audiences' understanding of what we do and the values we hold
- To lead change in the way the industry works together, making the case for Britain's railways through our actions and our insights
- To develop our communication teams to play their role in delivering outstanding communications

Strategy
- Tell how we deliver on our promises, be honest where we can't and say what we will do about it
- Develop all our communications through the lens of the passenger and their experiences
- Listen, respond and explain with a human face
- Ensure all our communications are insight driven
- Devolve communication and engagement locally wherever possible

Audiences

Passengers, TOCs/FOCs, Government, MPs, Employees, Media, Funders, Neighbours, Supply Chain, Taxpayers

How
- Honesty and humility in tone, showing passenger empathy
- Joint industry communications wherever possible
- Local communications delivered as locally as possible

Plan of activities (8-year horizon)

We will deliver our strategy through four themes of the CEOs vision, with safety running through everything we do. Activity will be developed and delivered jointly with routes.

Passenger first	Dependable partner	Proud to work for Network Rail	Industry leadership
• Passionate about customer service • Network Rail managed stations as centres of excellence • Driven by ambition for passengers and freight users	• Behaviours that encourage alignment and alliancing • Devolution allowing closer alignment with customers and stakeholders • A more agile and efficient organisation that delivers value for money for the taxpayer	• World class personal and operational safety • The best train service performance ever • Determination to say yes & deliver • Developing and supporting our people in doing the tough stuff • Where our people can truly say "I'm doing my best work and have the best boss I've ever had"	• Influence where it matters • Building skills and capacity where leadership is needed • Clarifying accountabilities • Demonstrating how Britain's railways bring benefits to UK's society & economy

← Safety →

• Customer service excellence programme • Supporting our people to think passenger first • 'Brilliant at the Basics'/Every Second Counts • Passenger focussed information campaigns: Railway Upgrade Plan and Check Before You Travel • Undertake and use research on what passengers need and want from Network Rail • Drive improvement in safety attitudes and behaviours among passengers	• Cross industry communications and narrative • 100 day implementation change communications (external) • Develop Government Relations capability • Work with industry and partners to develop new safety strategies and behaviour change programmes • Stakeholder engagement and CRM • Community engagement	• Supporting People Strategy outcomes eg. reward and recognition, mental health, diversity and inclusion • Launch Network Rail vision, values and behaviours across organisation • Drive improvement in safety attitudes and behaviours amongst our staff • 100 day implementation change communications (internal)	• Rail review • Service excellence – collaborating with industry partners to deliver • Showcasing wider value of the railway to the UK – jobs, homes, regeneration, economic growth • Digital railway • Drive improvement in safety attitudes and behaviours amongst partners & contractors • Cross industry narrative on performance

15

Material changes in this version

V2.0

Updated
- Local dependency map
- The future 'where we want to be'
- The present 'where we are now
- How will we get to the future
- Plan of activities
- Continuous improvement
- Related documents

Continuous improvement

- Corporate performance as measured by corporate reputation tracker
- Results of corporate surveys including MP satisfaction & journalists
- Your Voice scores – 'my team puts passengers first' and 'I am proud to work for Network Rail'

Related documents

- Initial Thoughts – Board and ExCom paper May 2018
- Corporate Communications Deep Dive July 2018
- CCG papers June 2018
- ELT papers Dec 2018
- Board papers Jan 2019

Digital Railway Programme - Short Form Strategy

NetworkRail

Purpose & Scope

Digital Railway is a cross-industry change programme enabled by technology, which will enable the delivery of systems, technology, business & people change in an integrated way. As part of a package of interventions, the Digital Railway will help to address industry challenges by supporting the deployment of digital solutions in areas that offer the best strategic fit for the rail industry & greatest value for money, balancing benefits of capacity, performance, safety, journey time & reduction in disruption, with affordability.

The Digital Railway Programme will co-ordinate activity across industry, providing guidance & expertise to support Digital Railway deployments. The Digital Railway Strategy provides clarity on:
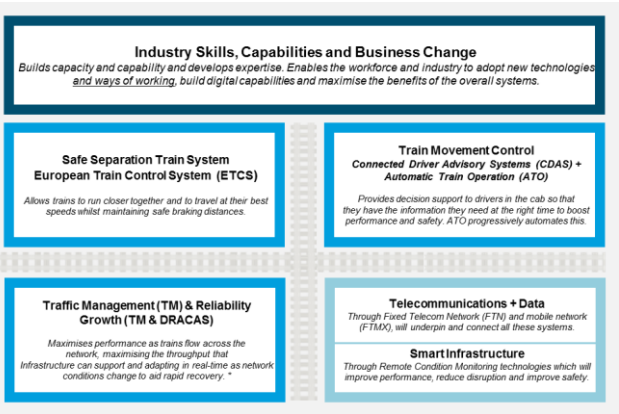
- Why the Digital Railway Programme is needed;
- How it will contribute to the Governments' wider economic, social & environmental objectives; &
- The agreed approach to addressing industry challenges relating to affordability & asset sustainability, safety, capacity & performance.
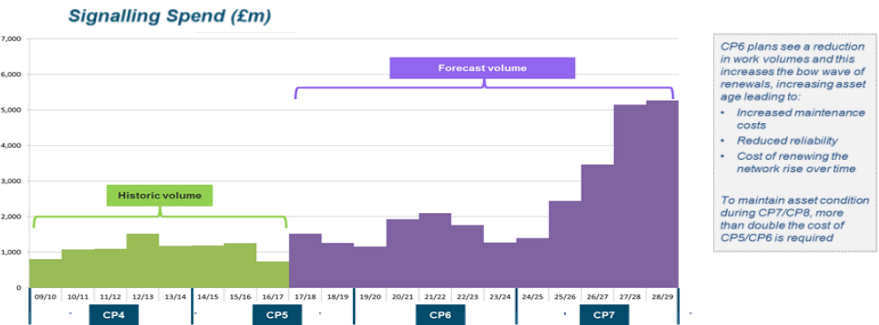
The Future – Where we want to be

As part of a system wide upgrade & a package of interventions, the Digital Railway Programme has a significant role to play in enabling the delivery of benefits to passengers & freight users, broader society & to the rail industry itself:

- **Asset sustainability (e.g. London-Peterborough)** - digital solutions (such as ETCS) offer the lowest whole life cost over the medium-to-long term. The cost of rolling stock fitment in the long term is offset by the reduction in cost of command, control & signalling infrastructure renewals.
- **Increased capacity (e.g. the Moorgate Branch)** - Digital Railway technologies have the potential to enable a step-change by allowing more trains to run on the same underlying infrastructure (in a way that not only avoids compromising journey time, performance & safety, but actually improves them).
- **Reduced safety risks (e.g. the Western Route)** - Digital Railway technology enables the use of other systems that introduce new ways of working, reducing the safety risks to track workers. ETCS introduces an enhanced level of train protection, reducing the risk of SPADs & maintains compliance to fulfil the Railway Safety Regulations 1999. On the Western Route, this technology is being examined as a potential replacement for ATP.
- **Improved performance (e.g. South East Route)** - through a combination of increasing capacity, & giving signallers, drivers, train controllers & incident managers better tools to manage incidents & knock-on delays, Digital Railway offers a once-in-a-generation opportunity to enable improved performance on the railway. The direct impact of increased capacity & improving performance; reduced crowding, more trains therefore offering reduced generalised journey times, through a reduction in disruption & delay, will improve the **passenger experience** for Great Britain Railway passengers.

The Digital Railway Programme will enable delivery of the benefits outlined below by embedding a number of key ways of working & technologies:

Industry Skills, Capabilities and Business Change
Builds capacity and capability and develops expertise. Enables the workforce and industry to adopt new technologies and ways of working, build digital capabilities and maximise the benefits of the overall systems.

Safe Separation Train System
European Train Control System (ETCS)
Allows trains to run closer together and to travel at their best speeds whilst maintaining safe braking distances.

Train Movement Control
Connected Driver Advisory Systems (CDAS) + Automatic Train Operation (ATO)
Provides decision support to drivers in the cab so that they have the information they need at the right time to boost performance and safety. ATO progressively automates this.

Traffic Management (TM) & Reliability Growth (TM & DRACAS)
Maximises performance as trains flow across the network, maximising the throughput that Infrastructure can support and adapting in real-time as network conditions change to aid rapid recovery. *

Telecommunications + Data
Through Fixed Telecom Network (FTN) and mobile network (FTMX), will underpin and connect all these systems.

Smart Infrastructure
Through Remote Condition Monitoring technologies which will improve performance, reduce disruption and improve safety.

* Also link to TOC crew and stock systems

The Present – Where we are now

Signalling Spend (£m)

CP6 plans see a reduction in work volumes and this increases the bow wave of renewals, increasing asset age leading to:
- *Increased maintenance costs*
- *Reduced reliability*
- *Cost of renewing the network rise over time*

To maintain asset condition during CP7/CP8, more than double the cost of CP5/CP6 is required

Expected future growth & making the most of existing assets create industry challenges:

- Affordability & asset sustainability in terms of addressing the renewals challenge at a lower whole life cost;
- Capacity & performance issues that cannot be addressed by traditional infrastructure investment alone in a cost efficient or effective manner;
- Preserving & enhancing safety across the rail network for passengers & workers;
- Shortage in skills across the GB rail industry.
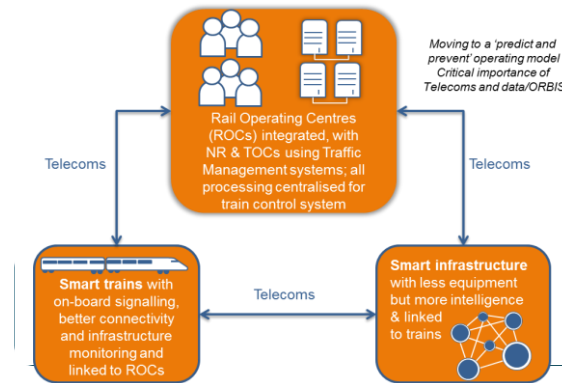
How we will get to the future

The Digital Railway Programme will facilitate the wider industry with achieving the vision of **"a Digital Railway for a modern Britain**" by providing;
- Systems leadership & industry support through an enterprise architecture & national systems authority for digital train control & signalling;
- Industry sponsorship to ensure business cases for deployment of digital train control systems are identified, funded, & deliver whole of life benefits;
- Industry change strategies to ensure that an industry operating model is in place to optimise the use & extract the full benefits of new technology;
- Requirements for Network Rail's Route organisations & wider industry to procure & implement the Digital Railway; &
- Enabling & national projects to support local deployments.

The rail industry has experience of delivering large & complex programmes, but there have been few truly industry wide change programmes at this scale. Successful delivery of the Digital Railway Strategy will be dependent on overcoming a number of key delivery challenges relating to industry collaboration, funding & financing, & business change.

To encourage innovation & drive cost efficiencies, engagement with the Supply Chain will be instigated during option development. In response to funding & financing challenges, third party funding & financing will be considered as a potential option for Digital Railway schemes, & the franchise competition process will be used to create opportunities for delivering the Digital Railway.

With new ways of working & digital technologies having an 'integrative' effect as they are deployed on the rolling stock, track infrastructure & operating centres; industry collaboration & effective business change will be more important than ever. To develop the skills & capabilities required to deliver the Digital Railway, as well as build & sustain confidence from the Supply Chain, visibility of a long-term pipeline of digital deployments will be required, supported by an industry wide Signalling & Operational Control Systems Strategy.

The Vision for the Future Railway Operating Model

Moving to a 'predict and prevent' operating model Critical importance of Telecoms and data/ORBIS

Rail Operating Centres (ROCs) integrated, with NR & TOCs using Traffic Management systems; all processing centralised for train control system

Telecoms

Smart trains with on-board signalling, better connectivity and infrastructure monitoring and linked to ROCs

Telecoms

Smart infrastructure with less equipment but more intelligence & linked to trains

Plan of activities

Will optimise need, infrastructure & rolling stock – retro-fitment, DAS & new trains

Short term (to 2019): Committed Projects & Learning Lessons

Implementation of Digital Railway schemes on Crossrail 1, Thameslink, Cardiff, Romford and Didcot will deliver localised benefits

Lessons learned from these deployments, as well as international lessons, will inform future deployments and enable best practice solutions to be incorporated

Medium term (CP6 to mid CP7): Targeted Deployments

Digital Railway schemes (ECML, SE, Wessex & Anglia) have been identified and prioritised within the Routes' SBPs as the most compelling stand-alone business cases, based on a set of principles using an integrated and targeted approach

The National Productivity Investment Fund (NPIF) is proposed to accelerate the deployment of a selection of digital schemes to deliver benefits by mid-CP6

Longer tem (mid CP7 and beyond): Digital as the Default

The delivery strategy will be based predominantly on asset condition within the notional asset life of CCS assets, which will form the basis of a long term infrastructure plan under development in 2018/19

Digital solutions will become business as usual, as the costs reduce and experience is gained from earlier deployments

Development of new technologies may change the development strategy

DR SOBCs

Other SOBCs and opportunities

Trans Pennine Upgrade

West Coast Mainline

Western

Wessex

East Coast Main Line

Anglia

South East

East London Line

Our case studies are based on the following:
Improved safety | Improved performance | Decreased journey time | Increased capacity | Reduced environmental impact | Cost and time requirements

Material changes in this version

Updated information on dependencies, continuous improvement, activity plan, risks & related documents.

Continuous improvement

The programme has a number of measures in place to enable continuous improvement:
- ►**staged approach** – the staged approach being taken by the programme enables effective sharing of lessons learned across multiple phases;
- ►**integrated programme controls & programme management team** – this central team's role includes gathering & integrating feedback from first deployments into the wider programme;
- ►**dedicated lessons learned strategy** – the business cases set out how lessons learned will be gathered & processed, both across & within the Digital Railway schemes.

Related documents

Whilst the programme has produced & contributed to a wide range of documents to support its objectives, these are most effectively summarised in the Digital Railway business cases:
- ►**COMPLETED: 5 x Route Digital Upgrade Strategic Outline Business Cases (SOBCs) –** modelling & appraisal of targeted schemes where most needed; updated analysis of supply chain capability & review of options for financing.
- ►**COMPLETED: DfT's NPIF SOBC –** modelling & appraisal of candidate enabling schemes for & sub-elements of Route SOBCs.
- ►**COMPLETED: Digital Railway Programme Strategy** – launched 10/5/18 by Secretary of State.
- ►**COMPLETED: ECML SOBC+** - for ETCS & TM on ECML(S). DfT approved funding for OBC on 21/5/18.
- ►**CLIENT REQUIREMENTS IN DEVELOPMENT:** OBC for TM rollout across South East Route; cost estimates for Crewe TM; SOBC for TM in Castlefield Corridor near Manchester. Programme is supporting development of digital options for TransPennine Route Upgrade.
- ►**IN DEVELOPMENT: A long term infrastructure plan** for wider rollout of digital signalling & train control technology in CP7 & beyond.

13

Financial Sustainability - Short Form Strategy

Purpose & Scope

Our customers tell us that we are not focused on their needs and priorities and this was highlighted by the Shaw report. It is also clear that direct taxpayer funding is insufficient to fund all the capacity improvements necessary on the rail network given the October Statement of Funds Available (SoFA) did not include money for new CP6 enhancements. NR needs to find new ways to meet the increase in passenger demand long term.

NR has therefore committed to rapid transformation to address:
- A lack of customer focus in our structure and culture
- A need for wider sources of funding and financing for enhancements
- An existing and growing capacity problem on the network

The Future – Where we want to be

VISION - When this change has been successful:
- Network Rail will look and behave like a normal private sector company
- Routes will be better incentivised and focused on what they need to achieve and be closer to customers
- Network Rail will have an additional level of financial discipline due to increased 3rd Party funding and financing
- Network Rail will have an improved commercial discipline resulting in improved customer focus and an improvement in cost, speed and efficiency and be better placed to secure 3rd party funding and financing
- Network Rail will attract investment through looking like a normal private sector company

The key project within the Financial and Commercial Transformation Programme (FaCT) that will deliver long term financial sustainability is the Future Capital and Financing Structure project.

This will deliver the following outputs:

- A financial framework with sustainable financing arrangements for CP6 will be agreed with stakeholders and implemented
- An appropriate CP6 WACC will be agreed with ORR
- A restructured 'healthy' balance sheet

In addition, two other projects within the FaCT programme, the 3rd Party Financing Project and the 3rd Party Funding Project will introduce an increased amount of 3rd party money which will support the delivery of CP6 enhancements.

The Present – Where we are now

IMPERATIVE - We can't stay where we are because:

- Our funding is inconsistent with our devolved structure and we do not attract private sector capital
- We are a national "monopoly" and not responsive to our regional customers
- There is an inherent lack of flexibility in the current funding and outputs framework which makes it difficult to respond to evolving customer needs
- We need to reduce the cost to government of the railway it wishes to buy
- The government is looking to control public spending to cut the deficit and bring down public sector debt which impacts Network Rail

How we will get to the future

SOLUTION - To achieve this we will:
Develop and deliver a pipeline of 3rd Party Financing and Funding Projects using two enhancements as pathfinders, Digital Railways' ECML South and the Western Rail Link to Heathrow project. The focus is on delivering the business cases required to put a financing transaction in place. Work has commenced on understanding the likely impacts of a 3rd party financier delivering enhancements and possibly financing, operating and maintaining them. The FaCT Programme is working closely with the 'Open for Business Programme' which is focussed on creating the conditions for 3rd parties to invest and deliver on the rail network.
The 3rd Party Funding Project is focussed on increasing levels of 3rd party funding for enhancements and renewals by building 3rd party funding capability.

Plan of activities

To Be Updated

Material changes in this version

No material changes, minor updates to ' How we will get to the future.'

Continuous improvement

Governance is through the OFB Steering Board (chaired by Jeremy Westlake)

Related documents

Funding and Commercial Transformation Programme Brief

Funding and Commercial Transformation Programme Blueprint

External reports
Hansford Review

FNPO (Freight & National Passenger Operators) - Short Form Strategy

Purpose & Scope

FNPO purpose is to :-
- Deliver excellent service, through improving safety and performance, and enhancing capacity and capability, at an efficient cost
- Support the rail freight sector and strengthen support for Cross Country (XC), Caledonian Sleeper (CS), Charter Train operators and Aspirant Open Access Operators, with customer scorecards at the heart of our relationships and customer focus

FNPO is different in scope and scale to the eight geographical routes in that it does not physically manage infrastructure. Its key role is to provide a principal point of focus and contact for delivery of service and other outputs for customers who operate nationally across multiple routes. As Network Rail continues to transform, devolving greater accountability and responsibility to Route Businesses, FNPO will continue to work collaboratively with each Route and the System Operator, as they are instrumental in delivering our future plans for our customers.

The Future – Where we want to be

Freight: Current freight growth forecasts predict a 15.6% increase by the end of CP6 – subject to the ongoing macro-economic factors. FNPO expect strong demand for modal shift across the construction, intermodal, automotive sectors and emerging demand for express freight / urban logistics rail solutions; the key areas for action and influence in CP6 is:

- Network Capability & Capacity: Achieve a strategic network of freight capable corridors with nodal yards at key intersections delivering the capacity to accommodate traffic growth. Corridor target parameters:775m train length, W10-12 loading gauge, RA10 at line speed, AC electrification, 24/7 availability through diversionary routes. Manage capacity strategically, securing freight paths, in line with evolving traffic patterns and growth predictions
- Terminals & Railheads: Realisation of the next generation of Strategic Rail Freight Interchanges (SRFIs), establishment of a NR freight-ready railhead portfolio, capability and capacity optimisation of End User Terminals (EUT) sites, development of NR stations for express freight capability
- Performance: Adoption and delivery of proposed 94.0% Freight Delivery Metric (FDM) for CP6. Collaborative improvement of right time departure discipline for yards and terminals and nationwide dissemination of best practice
- Access Charges: Stable & fair, long term charging structure and funding framework for CP6 and thereafter, reflective of environmental and economic benefit of rail freight
- Safety: Roll out of the £22m FNPO Safety Improvement Programme (FSIP) seeing improved conditions and processes to improve safety for our customers and staff. Improvement in network siding track and yard standards, as well as consistent and accessible safe operating procedures.

NPO: key areas for action and influence in:
- Franchises: FNPO will work collaboratively with DfT, potential and successful bidders and the franchising process, for the award of the new Cross Country franchise
- Performance: The Cross Country franchise will have an established Joint Performance Strategy, aligned metrics for performance that relate to the Cross Country scorecard and FNPO will continue to develop and deliver this with the new franchisee
- Safety: A Joint Safety Improvement Strategy will be developed & implemented with the new operator of the Cross Country franchise

Caledonian Sleeper: Smooth introduction of new rolling stock, delivery of 80% Right Time Target into and through CP6

Charters: Development of strategic capacity to secure business certainty for charter operators and to eradicate effluent discharge across the network

The Present – Where we are now

Freight: Positive growth across the construction, automotive and intermodal sectors, is describing a changed freight operational geography - characterised by an increasing density in the south, posing new challenges over busier parts of the rail network.
- Network Capability & Capacity: Some W10 capability from key ports to W.Mids and NW. Limited W12 capability and east / west gauge capability. Capacity limitations impacting traffics from some ports, including Felixstowe..
- Terminals & Railheads: Limited spread of intermodal terminals & certain hot-spots facilities for capacity. A need for a number of London & SE area sites to support bulk construction growth. A number of SRFI proposals progressing through planning and a range of end-user railhead developments in play
- Performance: Continuous achievement of regulatory 92.5 % FDM target, focus on arrivals to 15 mins (A2F) and right time departures from terminals
- Access & Charging: Conclusion of ORR discussions on Track Access Contract charges
- Safety: Strong focus on derailments in Network yard & siding & Signals Passed at Danger (SPADS). Vegetation issues on most geo-routes

NPO:
- Franchises: Cross Country hold the Franchise until Oct 2019 Performance: End CP5 Target of 90.8% Safety: Joint Safety Plan embedded and is reviewed regularly
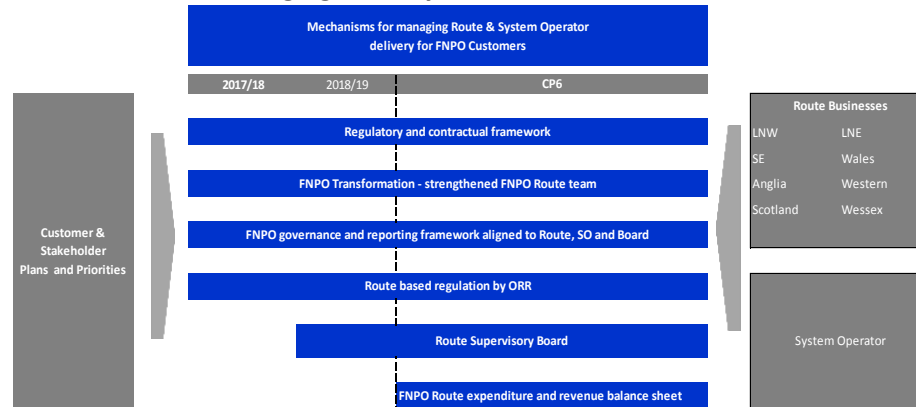
How we will get to the future

As Network Rail continues to transform, devolving greater accountability and responsibility to Route Businesses, FNPO will continue to work collaboratively with each geographical route to ensure continued delivery to our customers. The mechanisms already in place to give our customer the necessary assurance as to how we will work with Routes and SO are summarised in the diagram "Mechanism for managing delivery for our customers".
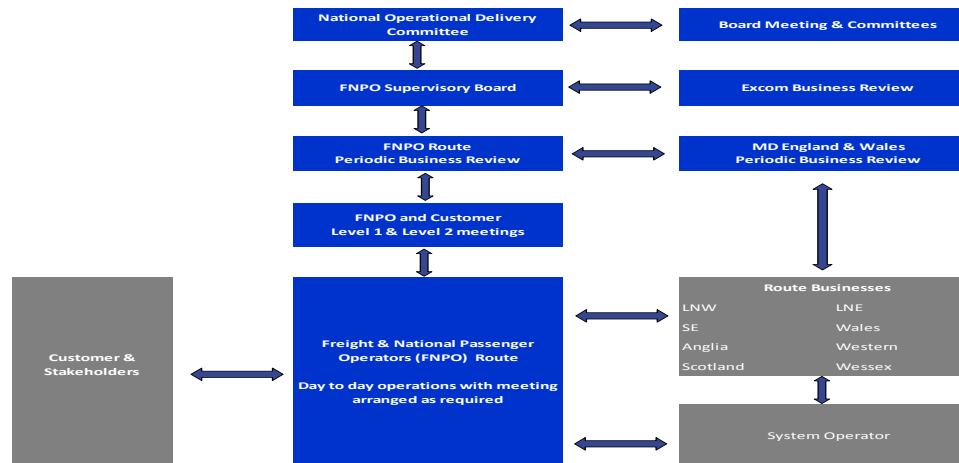
FNPO is subject to the same governance within Network Rail as geographical routes. Executive Committee and Board reporting packs include FNPO reports alongside Routes. The FNPO scorecards have equivalent status as Route scorecards and are a key part of the Network Rail reporting/governance framework. The key meeting structure and associated escalation process is summarised in the diagram "Governance framework to monitor customer delivery "

In addition, we undertake customer satisfaction pulse checks with FOCs on a quarterly basis and six monthly for Freight End-users. This provides the opportunity to give the feedback on areas of concern or appreciation. These are reviewed by CRE/SRFM teams and action plans are developed and implemented in conjunction with Route Businesses and System Operator

Mechanism for managing delivery for our customers

Governance framework to monitor customer delivery

Plan of activities (8-year horizon)

Control Period 5 (current – 2019)		Control Period 6 (2019 – 2024)
▶ Completion of CP5 SFN programme to time and within budget ▶ Identification of freight funding for development studies of CP6 priorities ▶ IIA , FNPO RSP freight workstream & resultant funding determination ▶ Transformation of an integrated and expanded FNPO team structure	Freight	▶ CP6 SFN programme: detail in Freight Network Study and FNPO Route Plan ▶ Achieve and stabilise FDM targets in conjunction with route businesses ▶ SRFI's and other terminals developed, completed & traffic commences ▶ FNPO Safety Improvement Programme (FSIP) deployment and roll out
▶ Development work for new XC Franchise ▶ Gauge clearance ahead of Introduction of new MK V coaches for Caledonian Sleeper ▶ XC timetable aspirations delivered	NPO	▶ XC Franchise Award ▶ Continued renewal and enhancement works and resultant timetable improvements across the Network ▶ Continue work with other Routes to deliver a Right Time railway

Material changes in this version

Updated information on dependencies and revision on a number of other sections to reflect alignment with RSP/DD

Continuous improvement

FNPO is committed to the 'Better Every Day'. programme This will be delivered by:

- Lean training for 90% of our FNPO team which has been completed (1 day awareness training), 20% of FNPO team on the 3 day programme and sustain these levels through CP6

- Develop and apply lean skills and techniques, where practicable

- Encourage continuous professional improvement

- In line with the lean maturity framework, we will implement the recommendations as agreed with the Better Every Day team

Related documents

▶Initial Industry Advice (IIA) Freight Workstream Supporting Document – a comprehensive, sector agreed digest of the market, anticipated areas of growth and growth constraints, proposed performance trajectory and proposals for capital schemes, ring-fenced funding and the sectors access charging position.

▶FNPO Route Strategic Plan February 2018 – this document sets out our vision in key areas such as safety, train performance, capacity and capability for the next 7 years, while keeping the customer at the forefront of our plans

▶DfT Rail freight strategy – overarching summary of policy direction and intention, supporting analysis of market opportunities.

▶Network Rail Freight Network Study – 30 year planning document, a geographical assessment of network capability and capacity against assumed sector growth. Identifies principle network enhancement options to accommodate such demand.

Human Resources - Short Form Strategy

Purpose & Scope

Purpose
The people strategy sets the context and focus of the people agenda to support delivery of the business agenda through our workforce.

Status
The strategy sets out an organisation framework against which each area of the business delivers. The HR function will have an enabling plan to support organisation wide activities. Each route and function has its own business plan, and the people agenda is set in the context of the organisation wide people strategy. To support this each route and function will have its own HR plan to meet their own needs, and priorities .

Scope
The strategy covers the people aspects of Network Rail and where Network Rail influences the broader industry.

Planning horizon
The initial strategy covers the next control period, to align to current business strategies.

The Future – Where we want to be

Network Rail is a place people are proud to work	Network Rail is one of Britain's best employers	Network Rail is leading the way in making the railway industry more diverse and inclusive
Network Rail's environment enables everyone to reach their full potential	Network Rail attracts, develops and retains dedicated and committed people	Network Rail leads the industry in planning for and developing leadership and skills to meet the future needs of the railway
Network Rail is a place people feel safe, looked after and treated with dignity and respect	Network Rail encourages great leadership and is a place where there is mutual trust and respect between line managers and employees	Network Rail prioritises mental health and employee wellbeing, and supports and develops resilience in its people

The people strategy is outcome driven, and aligned to the business strategy.,
It is a set of shared, collective outcome statements.

Each outcome is supported with more detailed descriptions, business benefits, measures of success, and specific projects , programmes and route/function plans to deliver the outcomes.

The Present – Where we are now

The research and evidence show that there is little visibility or knowledge of the people strategy and therefore is it not understood or embedded across the business. Each of the HR centres of expertise currently has separate delivery plans and each route and function also have their own HR plans. This results in a range of plans with little alignment or integration and unclear objectives and outcomes. Most are currently centred on outputs rather than outcomes.   The previous people strategy as well as not being well known did not have clearly stated outcomes timescales, benefits or measures of success/KPIs and the delivery of benefits was not tracked.

To address these issues the current strategy was developed from route and function business plans, other published plans (e.g. transformation plan), external benchmarking (Hackett), and customer insight from across the route and function HR teams . All of the inputs were synthesised together to create the current people strategy for CP6.

How we will get to the future

A rigorous and structured approach is being taken, using the MSP4NR methodology. The key steps are:

1. Clearly documenting the outcomes to be achieved and the measures of success/targets
2. Establishing the benefits of each of the outcomes,
3. Identify the individual pieces of work/projects/activities that will deliver the outputs and capabilities which in turn will deliver the outcomes.
4. Validate and refine with a range of stakeholders including routes, functions and other key stakeholder groups.
5. Synthesise together to establish the overall benefits map to prioritise and sequence the work needed to deliver the outcomes.
6. Summarise in an overall high level plan
7. Teams across the HR function to develop, own and drive their own plans in the context of the overall strategy.
8. Track delivery against the benefits though the measures
9. Review progress and refine/adapt plan

Changes and evolution to the strategy will be identified through the HR strategy group which meets quarterly and then through the people committee.

Assumptions – work within CP6 IT budget

Plan of activities (8-year horizon)

Governance will be through the formal BPM framework, using the HR directorate meeting, HR strategic meeting and the people committee.

Plan – there will be a series of interconnected plans all supporting the delivery of the people strategy. The HR enabling plan and milestones will be managed and driven by the core HR function to deliver organisation wide outputs. Each route and function has their own people plan which will be aligned to the people strategy, see diagram 1 below.

The process is illustrated below in diagram 2.
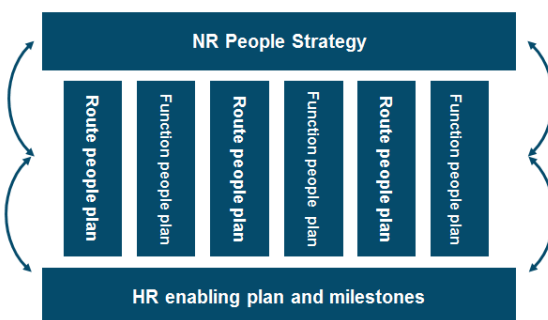
Diagram 1
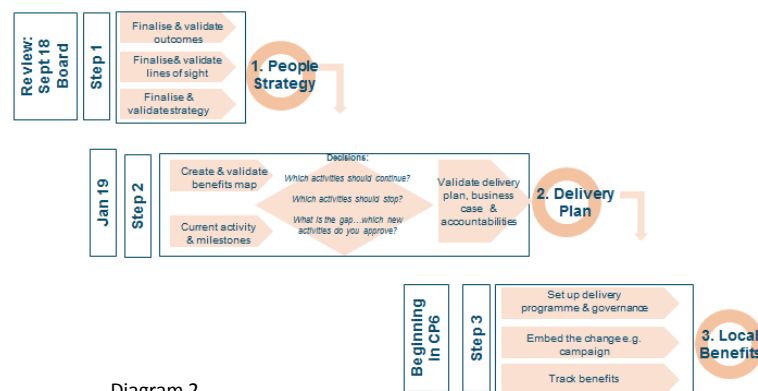
Diagram 2

Material changes in this version

The people strategy has evolved since 2017 and now has a clear set of outcome, each with more detailed descriptors.

The plan for finalising both the strategy and the plans has also evolved.

Continuous improvement

- Structured QBRs across the function and periodic reports
- Lean training target within HR function of 50% trained
- Strategy programme being run under MSP4NR
- Quarterly HR strategic meetings to review progress against strategy and emerging strategic issues
- Quarterly framework meeting – people committee.
- Measures for each of the outcomes being developed.

Related documents

People strategy
HR CP6 strategic plan

Information Management - Short Form Strategy

NetworkRail

Purpose & Scope

Information is one of our most valuable assets; it is linked to everything we do within the rail industry. As we move closer towards a more data driven and digital railway we will become increasingly dependent on information to deliver a safe, efficient and secure railway and achieve our strategic objectives.

"The Information Strategy" document published in July 2017 articulates the importance of knowledge, information and data in the delivery of Network Rail's business goals; identifying how and where we must focus our efforts to optimise the use of information to deliver a Better Railway for a Better Britain.

In summary, properly managed knowledge, information and data supports innovation, productivity and competitiveness – these aspirations can only be achieved if we all have the right skills, processes and tools to do our job. The Information Strategy sets out our vision and details how we will achieve this and contribute to UK growth. We can only do this by working with the business and our strategic partners to mitigate information risks through effective information management.

The Future – Where we want to be

Information Vision: '**Our information is trusted and used to deliver a better railway for a better Britain**'

- We value our knowledge, information and data
- We have the skills and understanding to look after and manage our knowledge, information and data
- We use and share our knowledge, information and data to help ourselves and others
- We deliver effective management of our records and documents, including applying appropriate security.
- We effectively apply current Government standards and regulations to all our information assets.

Whilst the focus of the information vision and strategy is knowledge, information and data, that is not the end of the journey; the value that can be realised from investment in our information is deeper insight and understanding, reduced costs and increased efficiency. We have lots of information across Network Rail, the way forward is knowing and understanding how to make that information work for us, only then does it becomes knowledge.

The Present – Where we are now

Network Rail is committed to the delivery of a Better Railway for a Better Britain. To achieve this, a number of key themes and must win programmes have been identified in Network Rail as critical to delivering a customer focussed and commercially driven business. Each of these programmes has a fundamental dependency on information for success. Information and data management are also critical to delivery of Industry Rail Technical Strategy Capability Delivery Plan.

Technology advancement, coupled with increasing deployment of technologically enabled assets, is creating unprecedented levels of knowledge, information and data across Network Rail. This need will become more critical with the Digital Railway and Intelligent Infrastructure programmes. To mitigate any future risks we must ensure that we have a targeted approach to the management of knowledge, information and data by establishing effective business by managing records and documents, regulation and information security. If we fully understand and control our information assets, it will not only help drive better decision making, it will also remove time wasted on unnecessary activities, for example interpreting information received in unsuitable formats through to automation of highly repetitive mundane tasks.

We need to develop our information governance system and processes to understand the value of our information and protect it appropriately. In order to achieve this business success, we are working with the business to foster a culture where information is an asset and Business Areas are efficiently managing their documents throughout their lifecycle, identifying risks and implementing appropriate security controls and regulations.

If information is an important asset, then the people involved in data and information specific role are also important. As we move towards a more digital railway we need to establish the skill levels required of our current workforce, whilst identifying new skills needed to implement the new digital age.

How we will get to the future

Our vision is planned to be delivered over an 8 year period, this will evolve alongside our business objectives as we respond to market demands, innovations or Government policy.

In order to make this vision a reality, we need to concentrate on three specific areas: people, processes and systems.

We will identify our skill gaps and work with accredited bodies to develop a competency framework in order to develop our workers skills set and create certified Information Professionals.

We will put in place processes that will reinforce our current governance framework and allow the business areas to establish their information governance maturity levels by the way of an automated tool. We will continue to enhance and develop our Information Champions network across the business to promote collaboration and information sharing.

Initially the focus will be on 'understanding and controlling' our knowledge, information and data; this will require us to create structure and guidance for the wider business in the form of a suite of policies, an Information Asset Register and a fully documented Information Architecture Model .
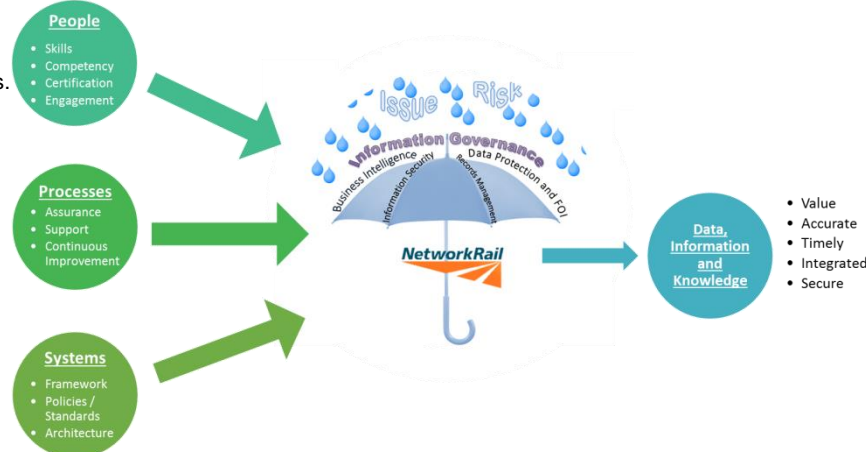
We will then move to become a 'value driven organisation' where everything we do will be based on accurate, timely and integrated information, which our people and systems will consistently use to deliver a better railway. Information will be understood, trusted and shared both within and external to Network Rail and will be used to stimulate benefits to the Rail industry and wider.

Plan of activities (8-year horizon)

We value our knowledge, information and data - We will:
- Establish the framework for an Information Asset Register
- Put in place the foundations of information architecture including information models
- Create the polices and standards for Information Classifications
- Continue to assess the maturity levels for information governance across Business Areas

We have the skills and understanding to look after and manage our knowledge, information and data - We will
- Raise the profile of Data and Information roles
- Establish a Data, Information and Knowledge competency framework to set the minimum standard for all our data specific roles
- Align ourselves with an accredited body to allow our colleagues to become certified professionals
- Establish information professionals and establish a supportive and collaborative network across the Business Areas

We use and share our knowledge, information and data to help ourselves and others - We will:
- Create and foster a culture of information governance by continuing to develop the Information Champions Network
- Establish Network Rails data sharing protocols in collaboration with the internal business and industry standards
- Develop a suite of information governance standards, policies and guidance
- Communicate across all business areas the benefits and value of information and information governance to aid strategic business decisions.

Material changes in this version

Second draft-

1. Scope includes data and knowledge
2. Updated emergent risks and opportunities
3. More details around plan and industry wide implications included

Continuous improvement

Continuous review over the first year using feedback from representatives across the organisation

Following the first year an annual review to take place using feedback from the Information Steering Group

Related documents

Information Vision and Strategy

Information Strategy

Information Technology - Short Form Strategy

NetworkRail

Purpose & Scope

Purpose of IT Strategy

IT Strategy's purpose is to align NR's IT choices to the aspirations, goals and constraints of NR. It does this by leading, guiding and governing the daily choices we make when planning, designing, building and procuring, operating and using Information Technology.

Scope of the IT Strategy

The IT Strategy covers all parts of Network Rail and all of the IT assets that NR is responsible for. It includes how IT is part of the railway system, connecting to the sensors and controllers of the infrastructure. It spans an 8 year planning period, and 15 year forecast/vision.

Status of the IT Strategy

The IT strategy is maintained iteratively by the **Chief Information Technology Office** in Route Services on behalf or NR. It is developed in consultation with central, route and industry colleagues and is in its second year iteration with a focus of readying our IT choices for CP6.

Assumptions

IT will be operated across the matrix organisation yet within a national framework of strategy, planning and governance.

The Future – A railway that **runs on data,** powered by **technology,** creating **new destinations** in the lives of everyone *(src: NR IT Vision)*

Network Rail is transforming and IT must be ready to meet the needs of the organisation. Goals where IT has biggest opportunity to enable NR's success include:
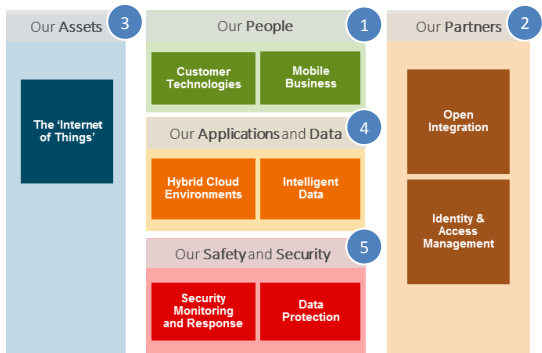
everyone home safe every day — How we keep **everyone safe on the railway,** empowered to be the best they can be. How we achieve standard ways of working through repeatable, automated processes.

How **engineering technology transformation** helps us achieve a step change in asset stewardship and train service capacity in line with the Rail Technical Strategy

How we operate as **distinct businesses** within **national framework**, bringing track and train closer together. Balancing privacy and collaborative openness.

The future is summarised by the aligned technology, business and leadership IT decisions of the IT Strategy:
1. Modern client technologies that make it **easy to use systems** and **collaborate, wherever and whenever**.
2. Improved ability to participate with industry partners, **sharing data** through secure channels.
3. Integration across **IT** and **Operational/Engineering assets** of the railway for real-time sense and control
4. Flexible computing power, for more choice and better insights to better **understand and plan our railway**.
5. Enhanced vigilance of cyber threat to **protect our IT assets, our data and therefore our people** - where security and safety go hand in hand.

Our business and leadership decisions focus on greater choice in how we operate IT across NR and industry.
• An **IT Choice Framework** that sets out mandatory, negotiable and optional IT services across NR.
• Whole system view and change of IT across the NR to **reduce risk of disruption** from uncoordinated IT.
• Clear whole life accountabilities for IT in a devolved organisation for **empowered, safe and efficient IT lifecycle decisions** from strategy, procurement, design, build and operations.
• Greater opportunities to explore the potential for **new, unexpected business outcomes** from IT through a culture of innovation and technology platforms that allow for exploration and innovation.

Our Assets 3 — The 'Internet of Things'
Our People 1 — Customer Technologies, Mobile Business
Our Applications and Data 4 — Hybrid Cloud Environments, Intelligent Data
Our Safety and Security 5 — Security Monitoring and Response, Data Protection
Our Partners 2 — Open Integration, Identity & Access Management

NR "Digital Business Platform" – Technology Choices

The Present – Where we are now

Today's IT very much reflects Network Rail's essential transitions, priorities, and formats from previous years. Today's business drivers are different which provide new expectations and a new lens through which to view our current IT infrastructure, lifecycle, governance and architecture.

The IT Asset

4 primary data centres, 2 critical data centres, 10 locations; over 1000 servers running 2000 business applications; 25000 smartphones, 13000 tablets and 30000 laptops/desktops; 6 petabytes of corporate, managed data.

The IT Asset Lifecycle

Much IT demand coordinated by central functions based on central and route needs primarily delivered and operated through Route Services IT. Varying levels of business led/funded/operated IT in Routes, IP regions and NRT.

IT Governance

Central IT investment panel and category management. National standards for records and document management, security and appropriate use. IT change and design governance managed through RS IT delivery projects.

IT Architecture

Standardised technology but with historic customisation and duplication; proven technology from major suppliers; closed systems; ongoing need to plan and invest in asset renewals to maintain currency.

How we will get to the future

Delivery of the Business Aligned IT Strategy requires collaboration and coordination across Network Rail, in particular those parties involved in setting requirement, providing funding, setting IT strategy, delivering IT change and running an IT operation. It requires a combination of IT leadership, guidance and governance.

---------- **Leading IT Decisions** ----------   -------------------- **Guiding IT Decisions** --------------------   ---------- **Governing IT Decisions** ----------

IT Vision

We set an aspirational future that positions "A railway that runs on data, powered by technology, creating new destinations in the lives of everyone"

IT Strategy Roadmap

We manage an 8 year planning view of the significant Business and IT changes required to support NR's goals. This drives the plan of activities in delivering the strategy.

Strategy Delivery Tracking

We track strategy aligned lock-in of IT initiatives into specific change activities (e.g. RS IT programmes, NR transformation programmes). Tracking and monitoring for success.

IT Principles

We follow 8 x IT Principles that set the guard-rails for NR's IT decision making. Purpose is to enable empowered yet risk-aware IT decisions in line with the IT Strategy.

Proactive Technology & Innovation

We make proactive choices of Digital Business Platform technologies and vendors to make innovation easier and on-boarding of business programmes faster.

Standard Designs and Guidance

We use IT asset specifications, standard designs for repeatability and better IT asset management. Including open integration, data intelligence, security, and mobile.

National IT Supplier Framework

We have greater choice and market selection speed through a modern IT supplier qualification scheme and framework.

L1 IT Governance Risk

We will reduce performance impact, cost escalation, reputational and legislative impact from how we manage IT. Includes development of national policy and assurance for IT.

CP6 Planning assumptions

Assumptions relating to how IT will be financed and delivered in CP6 are:
- Transformation Programmes which include IT change will make full provision for the costs associated with implementation and embedment of the technology change.
- Business Change related to the implementation of new technology will be led and funded by the Sponsor.
- Line of business IT investment will *either* be held entirely within the line of business plan *or* with explicit agreement within the plan of an NR IT service provider such as Route Services IT, IP Systems, or NRT. This includes capital and operational costs.
- Mobile and tablet device costs, NR Telecommunications costs and the delivery of Operational Technology are excluded from the RS IT PR18 submission.

Plan of activities (8-year horizon)

The IT Strategy is delivered through a combination of IT enablers, delivered primarily by the Route Services IT Function and Business enablers delivered through a combination of nationally sponsored transformations, business schemes and local developments. Significant inclusions are below:

CP6 plans – Business Enablers

Line of Business

Business change initiatives relating to how we plan and run train paths, manage railway assets and run a railway business. For example (indicative titles), better timetables, combined access planning, national records management, cost and volume reporting, virtual control centre.

Business Transformation

Nationally sponsored business and IT change including Intelligent Infrastructure, Digital Railway. These transformation programmes span multiple lines of business processes and business functions.

Business Innovation

Ad-hoc innovation schemes sponsored and funded by routes and central functions. Once proven, may lead to Line of Business initiatives.

CP6 plans – IT enablers

IT Transformation

Route Services IT Transformation Programme including delivery of parts of the Digital Business Platform (see P1), delivery lifecycle change, new supplier framework (working with C&P), and a changed service organisation for better customer service and improved IT asset management.

Run, Renewals and Enhancements

Maintenance, renewal and rationalisation of the IT estate, including business application & hardware renewal & IT licenses. For RS IT this includes investment for the IT services managed by RS IT. A risk and value assessment determines prioritisation of renewals activity.

Material changes in this version

Inclusion of the Digital Business Platform as key technology choices we have made in the future state.

Updates to local dependencies, showing the key strategies that have the ability to constrain or enable the IT strategy.
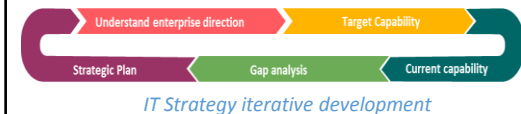
Addition of the L1 IT Governance ERR/Risk. Now in SharpCloud, this Risk sets out the challenges of IT in a changing organisation.

More detail about how we get there in terms of standard designs, new supplier framework, governance, risk, and lock-in.

Continuous improvement

The Business Aligned IT Strategy is refreshed in line with Network Rail's calendar – a major review and refresh per control period, annual retesting of drivers and choices and period review of strategic metrics of strategy delivery intent and of RS IT projects alignment.

Greater feedback and alignment to route and central needs through the assurance process being established for the IT Short form for 2018/19 for the first time.

Understand enterprise direction — Target Capability — Current capability — Gap analysis — Strategic Plan

IT Strategy iterative development

Related documents

Strategy
- NR Direction of Travel Report (May 2017)
- NR IT Vision (June 2017)
- NR IT Target Architecture (June 2017)

Policy (Sample)
- NR IT Principles (July 2017)
- NR IT Strategy Governance Framework (July 2017)

Plan
- NR IT Architecture Roadmap (Sept 2017)
- NR IT Strategy (September 2017)
- Route Services IT PR18 Submissions

Innovation - Short Form Strategy

NetworkRail

Purpose & Scope

Innovation is critical to delivering value to the Rail industry from all the Research and Development programmes and technology transfer from other industries.

The Innovation strategy is designed to support with Industry Rail Technical Strategy Capability Delivery Plan (RTS CDP) with a planning horizon of 30 years and the Network Rail R,D &T programme with rail infrastructure focus for CP6. The Innovation Strategy provides a framework to deliver a safer, more reliable, efficient and customer friendly railway. It will help improve the probability of success for our investment and improve the time to market for the technologies and ideas.

The scope includes innovation in products, processes and systems across engineering, finance, commercial, procurement, human resources and socio-technical systems.

The Future – Where we want to be

Over 30 years: To create new infrastructure-related capabilities enabling optimisation of today's railway and transformation to a future railway. This aims to halve unit costs, double capacity, halve carbon, transform the customer experience, eliminate injuries and create reliable performance. The key capabilities include trains running closer together, minimal disruption to train services, optimum energy use, services timed to the second and flexible freight; all underpinned by accelerated research, development and technology deployment.

Over 8 years: To create a resilient 7-day railway with world-class asset management which improves reliability, increases capacity and service levels and reduces delays. Trains and track equipment are specified through a whole-system approach to monitor each other and cause less damage. Intelligent maintenance provides accurate timely information for condition-based preventative intervention.

To support commercial financing and partnerships with third parties. This is expected to increase over time with measures to generate confidence and quality of forward view of the market as NR and other industry clients work hand-in-hand with suppliers; and potentially under a railway sector deal with government to value and incentivise new capabilities, generating value to the UK economy through increased exports as well as more effective inward investment.

The Present – Where we are now

One joined-up industry plan for R,D&T - the RTS CDP – was published alongside the Initial Industry Advice for CP6 in January 2017 by the Rail Delivery Group and Rail Supply Group. A proposition was put to the ORR to fund the whole RTS CDP through NR's CP6 determination and settlement. However, affordability considerations and a steer from the ORR to target a more specific range of infrastructure challenges has led to a re-scoped proposal that prioritises asset sustainability by reducing the need, reducing the cost and increasing the effectiveness of asset management interventions. This proposal is in development and will be submitted by 31 August 2018.

The temporary delivery organisation set up under the RSSB to prepare for CP6 is now giving way to a delivery team within Group STE established to focus on the prioritised scope for R,D&T in CP6. Plans are being established for priority programmes in CP6 building on the foundations created in CP5 – including governance and an R,D&T pipeline - and a clear line of sight from R,D&T delivery to meet business customer needs. The R,D&T is being closely connected with priorities for the Routes.

The key areas that need development are:

1. Our research, development and technology pipeline is healthy but we struggle to realise the true value on the railway. We have a lot of knowledge, some demonstrators and few actual implementations.
2. We understand the barriers against innovation that are facing our industry. We need to actively create capabilities to remove the barriers
3. We need to identify pathfinder projects and can be used to illustrate the barriers and apply focused capabilities to enable innovation

How we will get to the future

Innovation in the Industry and Network Rail will be critical in delivering the vision set out in the RTS and NR R,D & T Programme. The following key activities will create the framework to enable the vision.

Understand and influence policy
Government policy can have a significant influence on innovation, either positive or negative and that innovative in policy requires a sound evidence base in order for government to progress in manner which stretches business as usual while not taking undue significant risks. Work here will involve both progressively introducing innovation through existing procurement channels as well as inputting in the design of future procurement methods.

Create the collaborative environment
The complex nature of the supply chain results in innovations being reliant on transfers of value between different organisations, including; data, knowledge and remittances. The effectiveness of these value transfers between organisations is heavily dependent on the quality of relationship between parties. This work package will focus on creating the collaborative environment to enable effective cross-industry innovation

Help industry build & measure capability
Building capability building within organisations is, clearly, heavily reliant on the organisations buy in to the process and ability to show progress. This work will provide a framework so that Railway businesses are clear on what good looks like in terms of designing innovation into an organisational structure to create value. The work will provide a clear view on how innovation is delivering the company goals and ensure we can quantify the value it brings.

Challenge barriers to market adoption
Route to market is critical in having effective innovation in the industry. This work will establish clear and visible process to connect Research, Development & Technology to market opportunities and ensure those market opportunities are well understood at all levels of decision-making and committed to. There is also a need to improve market conditions through establishing and evolving a funding and financing strategy for rail. The aim will be to improve uptake of non-safety products into market using incubators and accelerators. There will also be focus on accelerating approval acceptance criteria for suppliers and products.

Plan of activities (8-year horizon)

WP 11 of the Rail Technical Strategy Capability Delivery Plan (RTS CDP) will build the capability to integrate R,D&T into Industry Planning (RDTIP) – to get R,D&T deployed and delivering value on the railway. The plan sets up an enabler framework to develop capabilities which will ensure that the barriers to innovation are addressed and pathfinder projects are set. In the next stage the pathfinder projects will be executed and key learnings established so the industry in ready for CP6. An accelerator framework will be established to enable focussed development for identified key projects. In the following stages the focus will be to pursue opportunities and mechanisms to sustain the integration of R,D&T into industry planning. In the final stage RDTIP must become BAU to realise the value created from R,D&T development. It drives the benefits realisation for the RTS CDP.

2017 > 2018 > 2019 > 2020 > 2021 > 2022 > 2023 > 2024

Prepare and plan
Establish enablers framework
Prepare showcase of pathfinders
Develop a plan to sustain RDTIP

Learn from pathfinders
Demonstrate improved market readiness by end of CP6
Link to the establishment of an accelerator

Drive change to establish RDTIP as an expectation
Implement plan to sustain RDTIP
Pursue process changes for investment opportunities and mechanisms such as franchising and long term planning
Promote pathfinders
Generate belief that planning to integrate R,D&T is a critical dimension to delivering value from all railway investments

RDTIP as BAU
Portfolio management exists at industry level to link technology development with investment opportunities across the railway system

Material changes in this version

Updated with latest plan from WP 11 R,D&T into industry planning

Continuous improvement

Continuous Improvement (CI) will be used to improve the existing innovation framework on an ongoing basis.

CI tools will also be used to engage with other function to ensure lean and agile ways across all functions and businesses to promote innovation

Related documents

RTS Capability Delivery Plan – January 2017

NR Product Development Framework (awaiting publication)

Railway Industry Readiness Levels

Shift2Rail Multi Annual Action Plan (at www.shift2rail.org)

Industrial Strategy for Rail (Rail Supply Group, Department for Transport (DfT), BEIS)

NR Technical Strategy – June 2013

GB Rail Technical Strategy – December 2012

STE - Short Form Maintenance Strategy

NetworkRail

Purpose & Scope

The maintenance strategy is part of the fully integrated asset management strategy, focusing on the development of tools, processes and technology to support the devolved routes become safer and more efficient and effective. It sets out the core principles of how the maintenance organisations within STE and the routes will work together and in collaboration with supporting functions to enable Network Rail to achieve its CP6 targets. This strategy applies to all operational assets maintained by Network Rail and is owned, maintained and tracked by STE. It has been developed through workshops with route stakeholders, however this work is not yet completed and this document will evolve further up to mid November 2018 once it has been through full stakeholder review prior to signoff at the Asset Management Committee.

The Future – Where we want to be

Tools and processes delivered in CP5 will be expanded, with activity digitised where appropriate. Staff have the competencies and capability required to deliver their accountabilities and a continuous improvement culture is fully embedded. Network Rail is recognised as a world class railway maintenance organisation because:

1. Inspection, testing and measurement activity is performed remotely and automatically where practicable – outcome of strategic themes 2 and 3 (from the "how we will get to the future" section).
2. Ellipse asset and maintenance registers are cleansed and populated in accordance with the asset information specifications (AIS). Bill of materials and condition data are integrated with Ellipse and end to end logistics management is systemised. A predictive maintenance approach is embedded, optimising cost and performance risk and improving operational and workforce safety – outcome of strategic themes 2, 3 and 5.
3. "Day in the life of" tools bringing key IT systems into a single user interface have been deployed and embedded, helping key maintenance roles deliver their accountabilities. Desktop scoping tools are in use, reducing site visits and increasing the quality of maintenance activity. Outcome of strategic theme 2.
4. A works management planning system is used to plan all maintenance activity into green zones. This is integrated with access, resource and train planning systems and maintenance is managed as part of the overall railway system. Productivity (fewer, better utilised, possessions containing multi discipline work sites) and efficiency (improved staff and resource utilisation) have increased, network availability is optimised (engineering access is balanced between delivering effective maintenance and the need to run more trains), waste has reduced (fewer repeat visits and supply chain efficiency) and safety has improved (through less time trackside and improved work design) – outcome of strategic themes 2, 5 and 6.
5. Risk Based Maintenance principles are embedded in standards across all disciplines, optimising life cycle asset cost and reducing service affecting failures – outcome of strategic theme 3.
6. Asset data management and analysis capability is embedded with roles in every route, supporting Section Manager and Maintenance Engineer decision making. This has been enabled through a level 5 apprenticeship (with a clear path to progress to level 7) within route businesses – outcome of strategic theme 1 and 2.
7. Maintenance competency and capability framework is fully embedded and assured against - outcome of strategic themes 1 and 7.

At the end of CP6 the following success metrics have been achieved : 7% reduction in service affecting failures; agreed reduction in activity based planning volumes delivered; 95% AIS data specification met; Section Manager "at desk" time reduced by 20%, repeat track geometry faults reduced by 20%; reduction in LTIFR to 0.17, productivity has improved by an agreed % (new measure to be created and agreed); 80% staff competent against the framework by the end of CP6.

The Present – Where we are now

Our maintenance practice currently is based on historic cyclical intervals and is moving to semi-predictive with the adoption of risk-based techniques in some asset and geographic areas. A significant proportion of maintenance remains on a cyclical basis across all disciplines. There has been a marked reduction in service affecting failures; however delays per incident have increased in CP5.

1. The CP6 Intelligent Infrastructure plan is currently being created and undergoing review and sign-off. Current metric: 19% reduction in service affecting failures since end CP4.
2. Asset registers are being continually improved and monitored via periodic reports within the Asset Information Services organisation. The reliability of data streams and quality of asset records still contains gaps in time and geography. Current data quality metric is available as BAU but is not fit for purpose.
3. Works management and asset management systems are currently segregated and do not provide an integrated approach to works/incident management. Current metric measures: 94% rostered hours worked; 19% reduction in service affecting failures since 2013/14 and LTIFR 0.371 at period 1 close.
4. Reliability Centered Maintenance has been rolled out in S&T, OLE and partially into the permanent way discipline with further extension to E&P currently being undertaken. Further work is planned to progress to Risk Based Maintenance. Current metric measure: 19% reduction in service affecting failures since 2013/14.
5. Around 63% of hours are not spent "on tools" as of period 2 2018/19. There is little available analysis of this non-productive time. It varies sharply by type and availability of access, protection arrangements, geography and task being undertaken.
6. Composite Reliability Index is presently 17.2%, behind target of 19% for 2018/19. Delay per incident has been on an increasing trend and a series of countermeasures have been put in place in all routes, with a target to reduce this by 30%.
7. Workforce safety LTIFR is predicted to narrowly miss the target of 0.363 standing at 0.371 at end of P1 . The majority of incidents are related to slips, trips and falls.
8. Maintenance compliance is broadly acceptable (see periodic engineering assurance report for specific details).

How we will get to the future

The Professional Head of Maintenance organization, in collaboration with Route Businesses and the Chief Engineer team, is driving the continued development of capabilities required to achieve the future state. This team is accountable for alignment of standards, business systems, the Intelligent Infrastructure Strategic Plan and Programme, benchmarking and engineering assurance.

To deliver safe, effective and efficient maintenance and to achieve CP6 maintenance objectives Network Rail has identified seven areas of strategic focus:
1. Operating Model: Make the pan-organisational accountability for all aspects of maintenance clearer, providing line of sight to corporate objectives and developing a competency framework to enable effective discharge against accountabilities.
2. Intelligent Infrastructure: Develop, where practicable, enhanced asset condition monitoring and analytics, with associated systems, standards, planning tools and processes to predict and prevent asset failure, minimise renewal intervention and develop tools to optimise whole life cost for capex efficiencies in CP7.
3. Safety: Manage system safety & people safety risks to as low as reasonably practicable (ALARP) whilst maintaining reliability at appropriate levels through the application of risk based maintenance regimes. There is a transition to performing all planned activity in green zones where practicable.
4. Activity Based Planning: Develop activity-based maintenance business plans using simple to use decision support tools and trusted cost data.
5. Maintenance Planning: Increase maintenance planning capability and provide frameworks and tools to optimise cost, time and quality of maintenance delivery.
6. Optimised Access: Engage with customers and stakeholders to maximise the balance of maintenance access and train services
7. Learning Organisation: Make our people pivotal to planning, delivering and reviewing maintenance and provide them with the necessary tools, skills and competence, becoming a learning organisation through sharing best-practice and structured continuous improvement

During CP6 Intelligent Infrastructure capability will be expanded to additional asset systems and any new tools/solutions created will be aligned to how the business operates. RBM maintenance regimes will continue to be delivered across all disciplines to facilitate a switch from cyclical maintenance to more efficient and output – optimized condition based maintenance delivery.

The full form Maintenance Strategy is currently under development and will feature a strong focus on Predict and Prevent approach to maintenance with a target to reduce service affecting failures attributable to infrastructure by greater then 10%. A drive to improve workforce safety by introduction of better planning tools and fatigue management programmes will be implemented with the target reduction in LTIFR of 0.17, mental illness leave reduction of 30%.

All of the above drives, projects and initiatives will seek to enhance systems risk and people risk as low as reasonably possible (ALARP) providing safety, culture and efficiency benefits throughout CP6 and beyond.

Plan of activities (8-year horizon)

This section will be updated when the CP6 delivery roadmap is completed and agreed with routes in November. The roadmap will cover the following areas:
1. Intelligent Infrastructure will develop predictive and preventative maintenance regimes, increasing asset availability, efficiency in utilisation of resources
2. Asset registers will be cleansed and condition data will be integrated enabling a predictive maintenance strategy to be introduced optimising cost, risk and performance.
3. Integrated Works Planning across disciplines will enable assets to be managed as part of a system, increasing production efficiency, optimising network availability, reducing supply chain wastage and improving safety.
4. Maintenance culture will evolve through targeted and continuous coaching, development and team building creating improved behaviours, improving safety and efficiency.

A number of activities have been identified to deliver the full Intelligent Infrastructure strategy in CP6 and have been broken into 6 distinct work packages;
1. Monitoring: Establish the optimum deployment of infrastructure monitoring technologies to provide the asset condition information required by the business.
2. Systems: Deliver the information management systems used in Intelligent Infrastructure processes, including transition to / integration with Ellipse where practicable.
3. Analytics: Develop analysis platforms to deliver understanding of current and future asset health and associated optimised mitigation plans.
4. Planning: Develop short, medium and long term planning tools to optimise work bank management and reduce waste from lost work
5. Design for reliability: Embed processes across Network Rail and the supply chain to include performance requirements and failure modes effects and criticality analysis into the lifecycle for new product design. This includes the removal of performance risks through redesign, designing assets to facilitate reliability-centred maintenance techniques, and the design of monitoring equipment.
6. Maintain for reliability: Embed standards processes across Network Rail to utilise reliability-centred maintenance techniques in the creation of maintenance regimes across all disciplines. Evolve the current approach to incorporate performance requirements, transitioning to full risk based maintenance.

In addition to the above mentioned initiatives the industry will be looking to build new technical capability thought the Rail Technical Strategy led by the R,D&T department to delivery new and innovative technologies and processes for realising stretching performance targets within challenging financial constraints.
Outputs of the R,D&T programme during CP6 will inform the CP7 plan for capex efficiencies associated with life cycle costing and enhanced maintenance capabilities.

Material changes in this version

Future: Re-write to reflect a future state with measureable metrics to support position realisation

The Present: updated figures and aligned to match the future state

The How: update to text and departments to assure against

Plan of Activities: Updated to reflect more current position of works with II work packages included and summarised. Also reference to RTS and work being undertaken by the R,D&T organisation mentioned

Continuous improvement

The Professional Head of Maintenance team have a key focus on knowledge share across the Maintenance Organisation and have created a self service hub site. Best practice is shared at the periodic Head of Maintenance Delivery meeting.

The full Maintenance Strategy and the Intelligent Infrastructure Blueprint and Roadmap are in development. As both provide a key input into this document it will need to be reissued in mid November. This will allow time for route feedback on this document as it stands.

Once complete the Maintenance Strategy will be reviewed and iterated on an annual basis..

Related documents

Tier-2
- Network Rail BCM (GBS)
- Intelligent Infrastructure Strategic Plan
- External reports
- Anatomy of Asset Management 3rd Edition – Institute of Asset Management, 2015
- International Standard for Asset Management, BSI ISO 55000, 2014
- International Union of Railways (UIC) ISO55000 Guidance document (draft) 2016
- BS EN 50126 (RAM for railway systems
- BS EN 13374 - Condition and diagnostics of machines

Occupational Health & Wellbeing

Purpose & Scope

Through delivery of key projects, the use of external health providers and collaboration with other business functions, the Occupational Health and Wellbeing programme aims to optimise the Occupational Health management and safety of our workforce by effectively mitigating, monitoring and diagnosing Occupational Health conditions. Our intention is to be more proactive than reactive by supporting improved health awareness and changing behaviours that influence long term Health and Safety, thereby achieving our vision of 'Everyone Fit for the Future'.

In line with the STE accountability framework, the scope of the strategy consist of the following:
- Enabling through pre-emptive measures a sustainable, health and productive workforce
- Focussing on protecting out workforce to reduce the impact of occupational health hazards
- Forming a culture of effective health and wellbeing management

This in turn will help to:
- Ensure that we manage, support and mitigate the health and wellbeing risks of our workforce
- Prevent any enforcement action by Governing Bodies
- Ensure a workforce that is fit and/or healthy to maintain and operate a 24/7 railway
- Ensure a consistent management of occupational health and wellbeing across the organisation
- Empower staff to feel supported at work and knowledgeable in the area of health and work

everyone fit for the future

home safe plan

The Future – Where we want to be

We want to be a company that models and applies a consistent approach to the management of Occupational Health and Wellbeing; is innovative thus ensuring service delivery is continuously fit for purpose and is perceived to be an industry lead in this area. We want to empower staff to feel supported at work as well as knowledgeable in the area of Health at work thus enhancing individual ownership of health and achieving a behavioural change to consider health of others. We expect our customers to say that we have a 'Workforce fit for the future', and that Occupational Health and Wellbeing is recognised as a cornerstone of our organisation becoming part of every day life both inside and outside of work. We will achieve this by ensuring that:

- We deliver high priority projects through the Home Safe Plan based on a thorough risk impact assessment

- We successfully deliver against our strategic aims which are to:
  - Deliver our Mental Health and Resilience Programme to support our employees emotional health by focussing on the availability of professional support, leadership training and awareness campaigns.
  - To procure, optimise and appropriately link all required outsourced health services to ensure successful delivery of health programmes, thereby supporting an improved proactive health prevention framework.
  - To ensure compliance to Occupational Health and Safety Legislation, with a strategic aim to prevent any new or worsening occupational health related health conditions.
  - To share, monitor and effectively use available occupational health data as part of business scorecards and KPIs, to support the implementation and design of sustainable health and wellbeing programmes.
  - To enhance the internal and external audit and assurance framework to drive forward continuous improvements in health and wellbeing.
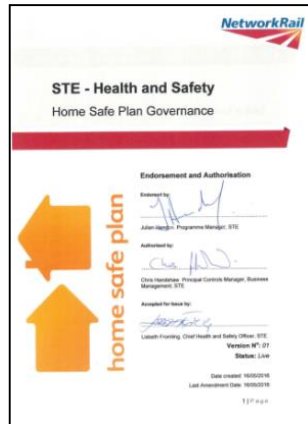
The Present – Where we are now

- The Occupational Health and Wellbeing team continue to deliver against projects within the Home Safe Plan, namely Mental Health and Respiratory Risk Reduction, however further work to ensure compliance to other Occupational health standards is required
- The team reactively delivers against many work-streams as a strategic authority, however, we acknowledge the need for change to align with a revised strategy and to achieve specific measurable outcomes in a proactive delivery method
- We recently achieved the best compliance rating of the Hand Arm Vibration Tier 2 and 3 health surveillance programme at 93% for 2017-2018, however compliance to H&S Legislation still requires further business collaboration and focus
- Since introduction of a Network Rail Chief Medical Officer, the importance of Occupational Health and Wellbeing has been heightened both internally and externally by establishing the necessary relationships with business leaders

How we will get to the future

Do what matters:

- We will review our strategy to ensure it is fit for purpose for the current organisational structure and business requirements
- Continue to successfully deliver against Home Safe Plan Projects
- To ensure all our standards, policies and procedures are relevant, up to date in line with health and safety legislation and simplified in line with the Information Management System (IMS)
- Prior to the commencement of any new projects, undertake a thorough risk impact assessment using the Project Hopper process by focussing on the highest impact projects from the hopper as load and capacity allow
- Engage leaders across the rail industry both internally and externally to build awareness, raise the bar and maintain support for Occupational Health and Wellbeing
- Demonstrate and evidence trends of initiatives against the strategy by making use of available Occupational Health and Wellbeing data, using scorecards and VIS boards to maintain the necessary focus to drive forward improvements
- Pilot new Occupational Health and Wellbeing initiatives and establish the 'Return on Investment' to drive forward full deployment of such programmes across the business

Plan of activities (8-year horizon)

- Prioritise new projects, by undertaking relevant risk impact assessment using the Project Hopper process
- Undertake necessary research and pilot programmes to evidence the need for change and innovation
- Expand the Occupational Health and Wellbeing team to ensure adequate resource is available to achieve delivery of strategy
- Ensure load and capacity is aligned with the Home Safe Plan across the business
- Provide support and technical authority oversight to ensure all route businesses and national functions deliver against improvement plans
- To focus on Occupational Health related medical diagnoses and ensure our staff are adequately monitored, followed up and supported by completion of suitable Health Management Action Plans, investigations and changes in working practices. This includes the implantation of suitable projects and programmes to mitigate the Occupational Health risks of our workforce
- Align and maintain communications to ensure the consistent focus on Occupational Health and Wellbeing
- Input into the wider business-wide competency framework for everyone discharging Occupational Health and Wellbeing roles
- To develop a continuous improvement plan of activities to monitor progress to the strategy and delivery of programmes
- Continuously review and amend OH&W Management processes and procedures , making them fit for purpose

Material changes in this version

A new strategy document separating Health and Safety

Continuous improvement

Yearly management review in Integration Group
Internal Audit
Level 1 and 2 Enterprise Risk Register (ERR)
External audit on procured health services
Integrated management systems

Related documents

2013-2024 Health and Wellbeing Strategy
Tier 1 (draft) Policy for Health and Wellbeing- pending IMS review
2019-2024 Updated Health and Wellbeing Strategy Document to replace 2013-2024- in progress

Operational Performance - Short Form Strategy

Purpose & Scope

Operational performance is a significant priority for our customers and delivering the timetable is a key focus for Network Rail. This strategy sets out a high level description of where NR wants to be in the future, and the strategic steps that we will take, with our customers and stakeholders, to get there. It also outlines some key principles within which this business will operate in future.

The Future – Where we want to be

The vision for performance in CP6 is to; Deliver more capacity with an increased level of performance beyond the level attained at the end of CP5, underpinned by an investment case for achieving a more reliable railway that is more "on time throughout its journey" with less variation between Operators/Routes and fewer "bad days".

- More trains to run "on time" every day, through better performance planning, to Right Time Railway Principles and Better Timetables planned with resilience built in. Performance risk is effectively identified and mitigated.
- A Performance Strategy agreed between lead Routes and Operators to a common template, will describe the key focus for performance for a 5 year look ahead. This to be supplemented by Route Strategic Plans and detailed performance plans which address in year activities alongside the necessary process controls. The strategy puts the passenger at the heart of performance.
- Each Route Business will be in control of decisions local to their business in collaboration with their Operators.
- A new basket of performance measures has been developed and Routes should agree with their Operator on the appropriate measure and targets for tracking through the Route Scorecard.
- Better Assets, Better Timetables, Better Operational Delivery and Better Information are all critical for the delivery of improved performance and this should be reflected in the performance strategies and scorecards.
- Operational performance is understood to be an outcome of decisions taken across all industry disciplines and factored in accordingly.
- Better quality of data and modelling informs industry decision making enabling us to better target resources for performance improvement and preventing accidental erosion of performance buffers in the timetable. We want better levels of data quality at nil incremental cost to the business.
- We must be able to predict the impact to performance as a result of planned changes to any part of the railway.

The Present – Where we are now

The growing use of the railway in some parts of the network is already placing the railway system under severe pressure, manifesting in large numbers of passengers arriving at their destination late. Failing to meet performance targets is costing the industry lost revenue and the country reduced economic output. We can't continue doing what we are doing currently and in some places the system will start to fall over as we place more and more demands on it with more trains and more customers.

The use of performance strategies is inconsistent across Route/Operator businesses and there is no clear or consistent approach to describing the performance plans;

The quality and completeness of detailed performance plans to underpin committed performance targets is inconsistent, and not subject to any structured assurance process;

There are limited tools available to NR to enable modelling of the impact of changes to the railway. Those tools that are available are complex and slow/expensive to utilise. Operators have a wealth of tools available to them as a result of their investment in the franchise bid process.

How we will get to the future

- **We deliver our Timetable Promise** - More trains to run "on time" every day, through better performance planning, to Right Time Railway Principles and Better Timetables planned with resilience at their heart.
- **Engagement & Competence** - We drive a deep understanding of performance across the industry so that everyone in the industry understands their personal contribution to delivering a high performing railway, which is underpinned by developing individuals, performance competence and supported through training and engagement.
- **Aligned Objectives** – Objectives, incentives and penalties to be better aligned through the Route Scorecards and refranchising process.
- **Asset Reliability** - The railway fails less through better asset reliability (fleet and infrastructure) and copes better with seasonal and climate challenges..
- **Perturbation Management** - Decision support tools to be rolled out to all Operational Controls to aid faster incident recovery and sufficient operations, maintenance, traincrew and unit resource is available to achieve rapid recovery.
- **Enhancements** - The railway is transformed through infrastructure and service enhancements to accommodate growth but is delivered in a way that as a minimum protects current levels of performance. Enhancements must take full account of performance both through implementation and realisation phases.
- **Digital Railway/Technology** - We support appraisal of performance impacts to inform decisions to invest in DR during CP6 so as to not only prevent any adverse impact on the punctual railway from rollout of DR, but also to help realise this programme's performance benefits.
- Ensure that performance is embedded in DR through its limited roll-out in CP6 to prevent any adverse impact on the punctual railway as a result.
- **System Capability & Capacity** - We develop a deep understanding of the capacity and capability of our railway as a system considering the constrained infrastructure and the systems' ability to cope with more trains and more customers.
- **Refranchising**- Each new franchise presents an opportunity for a step change in performance. Any specified increases in services should not come at the expense of performance buffers and recovery time.
- **Value of Good Performance** - We properly assess the value of good performance in its broader context to support wider economic objectives of a more reliable railway that can be trusted by its customers and funders.

It is recognised that investments through other Industry work streams will also be required to support a more reliable growing railway, specifically:

- Infrastructure & Rolling Stock asset reliability interventions
- Remote Condition Monitoring for infrastructure and rolling stock
- Climate Change and Weather Resilience
- Continuation of a rolling programme of Electrification
- Traffic Management as part of the roll-out of Digital Railway
- Performance mitigations and resilience built into all enhancement schemes to ensure that full benefits claimed in their respective business case can be reliably realised

Plan of activities (8-year horizon)

- ❖ Train Location Services – More thorough understanding of the cause of delays though marrying GPS with timetable data to better identify and target performance interventions.
- ❖ Traffic Management – Identify potential operational issues early and suggest ways of mitigating the impact.
- ❖ Disruption Management – Activities to improve our response to operational incidents and service recovery.
- ❖ Whole System Modelling – Understand better the performance impact of key strategic decisions.
- ❖ Alignment of objectives - Influencing franchise replacement discussions to specify the right metrics and require delivery at the appropriate levels to incentivise Operators towards the same performance targets as NR.
- ❖ Embed the discipline of a templated performance strategy that provides a maintained and relevant high level description of key performance improvements and risk across the operational railway, supported by both Route Businesses and Operators.
- ❖ Develop local Route/Operator performance plans that meet or exceed relevant joint scorecard targets.
- ❖ Establish benchmarking tools to enable appropriate level of challenge in the targeting and delivery of performance related bonuses.

Material changes in this version

Each section has been reviewed and refreshed to reflect current business thinking.

Continuous improvement

The key to the successful delivery of performance will be the Route Performance Plans, Joint Performance Strategies (which are already the subject of a quarterly review) and the Route Strategies.

The Business Review Team in conjunction with the National Performance Team will lead the tracking and reporting of progress against the core performance plain line with recognised practice.

Related documents

Tier-2
Guidance for writing TOC Performance Strategies

The Performance Manual

Operations - Short Form Strategy

NetworkRail

Purpose & Scope

The Operations Strategy will deliver a framework for Route Operations Strategies to be developed.
The content of the Operational Strategy concentrates on a system approach including people, process and technology.
The Operations Strategy will address the approach to competence management, incident management, assurance and operating practices.
The Operations Strategy will provide an environment to deliver efficiencies in terms of operational process, systems and people.

The Future – Where we want to be

The operational strategy will deliver operational, safety, performance and financial benefits from the delivery of the items listed below:
- Provide a competent workforce to deliver professional operations.
- Deliver the framework to provide a competent contingent workforce to meet future operational challenges.
- Provide a level of acceptable workload in both normal and degraded operations for all operational employees.
- Deliver clear succession planning through the operational roles including both front line and the management structure.
- Move from traditional operational roles to a more flexible workforce to deliver greater contingent arrangements.
- Improve the delivery of safety critical communications across the operational grades.
- Implement a framework that delivers more professional and structured operational leadership across the Route teams.
- Simulation systems to allow the delivery of operational competence.
- A digitally enabled railway with the introduction of technologies to meet the challenges of increased capacity and workload.
- A technology enabled railway to manage operational incidents and reduce the potential for human error.
- Systems in place to manage the passenger and public interface with the railway at locations such as level crossings.
- Digital publications for operational employees with rules, instructions and live operational notices readily available on electronic devices.
- Processes in place to allow trains to keep moving during failure or incidents to reduce the overall system risk.
- Improved permissible speed profiles to improve the point to point timings and overall journey times.
- Workforce removed from the tracks and the interface with trains for degraded operations.
- Robust procedural framework to deliver better operations to improve operational risk, security risk and incident response & recovery.
- An assurance regime that delivers level 1 & 2 assurance to framework owners and delivery of the frameworks within Route Businesses.

The Present – Where we are now

- The MAA for operational close calls is 21.54 with 280 potentially significant or potentially severe events reported in 2015/16.
- The operational competence process for line managers and all operational grades (including contingent staff) is not consistent.
- No clear migrations strategy for people process and systems into the Rail Operating Centres.
- The vacancy gap and lack of succession planning prevents the delivery of the competence and process frameworks.
- There is a lack of consequence and awareness for operational irregularities and close calls.
- Reliance on people to manage operational risk rather than the introduction of technologies at locations such as level crossings.
- There are inadequate facilities and people for the delivery of operational competence.
- There is no clear road map to move from today up to a digitally enabled railway.
- There is no clear process for the management of operational employees workload and the impact of the introduction of new technologies.
- The default procedural position during degraded working is to stop trains which impacts on the ability to recover and increases overall system risk.
- Level 1 and level 2 assurance is currently not providing any level of assurance in the application or effectiveness of operational practices, policies and risk. This provides a inaccurate picture of the current level of risk.
- The Incident management process and structure does not adequately allow Network Rail to follow the predict, prevent, respond and recover model.
- The operational security framework is not widely understood or delivered across the operational estate.
- There is a reliance on old operation practices and processes with layers of controls that are no longer effective or efficient.

How we will get to the future

- Roll out of new technologies at CCTV and User Accommodation Level Crossings to take the decision making away from the Signaller.
- The development and delivery of an operational competence framework to provide a clear road to competence and the professionalisation of operational competence. Introduce additional apprenticeship regimes for other operational grades.
- Additional posts for operational technical experts will be created to administer the process for competence assessments and verification of line managers and operational staff to provide assurance and to drive consistency across the Routes.
- Introduction of the Incident management system and the framework to support the introduction of the Senior Incident officer and Incident Officer roles.
- Review and deliver the operational process and competence framework to reflect the changes to the National Railway Security Programme to make sure it is consistent with the current threat. Through engagement with the security services the policy and strategy will be continually evolved.
- Deliver a process to effectively manage the introduction of technologies and the impact on the workload of operational employees.
- Implement the outputs of the Better Operations work stream and governance arrangements and challenge the default position of stopping trains. This work will bring together an industry strategy to challenge current operating principles and develop action plans to keep trains moving to reduce overall system risk.
- Introduce a process for the development of technologies and the interface with operational employees following a system engineering approach.
- Develop Route migration plans for people, technology and process to enable the successful delivery of Rail Operations Centres.
- Continue with the continual review and update of operational principles and standards to deliver a flexible and efficient technical framework.
- Improve the trade union engagement to develop strong operational practices and to maintain the engagement of those who will implement them.
- Improved management of fatigue through the introduction of the company frameworks, National Rostering principles and health & wellbeing strategy.
- Improve the supervision of operational employees with a focus on operational competence, service management and incident management.
- Provide a framework to deliver a professional and competent contingent workforce and the ability to provide robust business continuity planning.
- Challenge unapproved Route operational practices in relation to current policy and standards.
- Improve the ability for front line investigation and assurance to identify root and underlying issues to prevent repeat events and improve operational processes.
- Improve the focus and scope of the National Operations Control to provide stronger operational focus and leadership during times of perturbation.
- Deliver the digital delivery of the rule book, instructions and operational notices to provide efficient and electronic access to information.
- Provide expert input into the EIM meetings and working groups to protect the interests of the GB rail network and operating principles.

Plan of activities (8-year horizon)

- Deliver technology, people and process migration through a system approach to operations.
- Deliver a clear operational technology roadmap to enable the professional delivery of operations.
- Provide technical operational roles to conduct competence and assurance activities.
- Design and implement a more robust level 1 & 2 operational assurance regime.
- Deliver a comprehensive operational competence regime with links to professional bodies and licensing of operational employees.
- Improve systems and process for the delivery of incident management with a focus of keeping the railway moving.
- Implementation of innovative working arrangements leading to a POD system to manage geographical sections of the railway.
- Deliver professional operational competence development processes and succession planning.
- Implement multifunctional roles to provide flexibility for all operational employees.

Material changes in this version

There are no key changes from previous strategies.

Continuous improvement

All elements will be managed through the LEAN process to promote continuous improvement and efficiencies. Trends will be monitored to review effectiveness of measures with feedback sought from key stakeholders.

The assurance regime for operations will be overhauled to deliver a more robust process to identify areas of improvement.
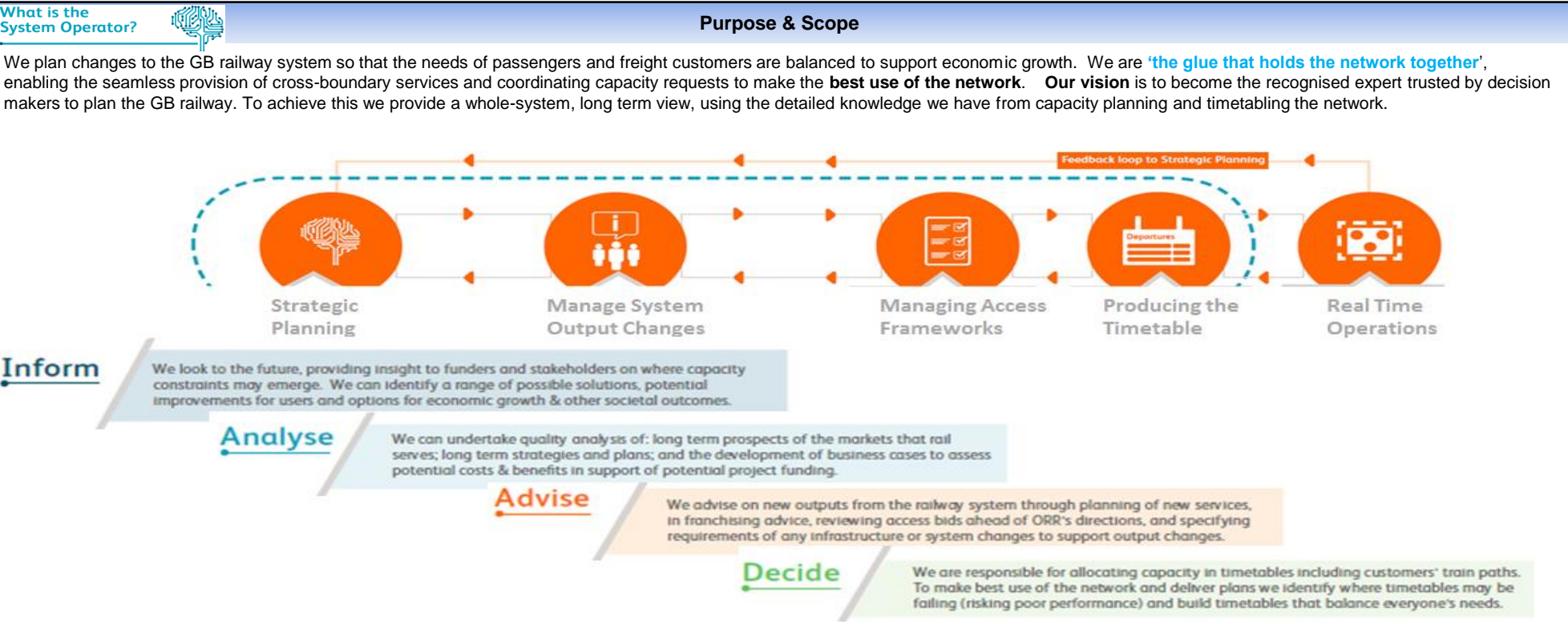
The operational strategy will align with the Integrated Management System and Quality management System to deliver continuous improvement.

Related documents

Tier-2
Strategic business plan for England and Wales for CP5 - 2014-19

External reports
Operational Excellence - V5 - 08-10-14
2016_17NationalScorecard

Planning a Better Network - Short Form Strategy

NetworkRail

Purpose & Scope

What is the System Operator?

We plan changes to the GB railway system so that the needs of passengers and freight customers are balanced to support economic growth. We are **'the glue that holds the network together'**, enabling the seamless provision of cross-boundary services and coordinating capacity requests to make the **best use of the network**. **Our vision** is to become the recognised expert trusted by decision makers to plan the GB railway. To achieve this we provide a whole-system, long term view, using the detailed knowledge we have from capacity planning and timetabling the network.

Feedback loop to Strategic Planning

Strategic Planning → **Manage System Output Changes** → **Managing Access Frameworks** → **Producing the Timetable** → **Real Time Operations**

Inform — We look to the future, providing insight to funders and stakeholders on where capacity constraints may emerge. We can identify a range of possible solutions, potential improvements for users and options for economic growth & other societal outcomes.

Analyse — We can undertake quality analysis of: long term prospects of the markets that rail serves; long term strategies and plans; and the development of business cases to assess potential costs & benefits in support of potential project funding.

Advise — We advise on new outputs from the railway system through planning of new services, in franchising advice, reviewing access bids ahead of ORR's directions, and specifying requirements of any infrastructure or system changes to support output changes.

Decide — We are responsible for allocating capacity in timetables including customers' train paths. To make best use of the network and deliver plans we identify where timetables may be failing (risking poor performance) and build timetables that balance everyone's needs.

The Future – Where we want to be

What does 'good' look like?
- more efficient management of capacity,
- customers receive a seamless service that works for them across the network's internal boundaries,
- strong working relationships based on credibility and trust,
- a consistent and transparent way of planning with evidence-based decision making and advice,
- delivering outputs while balancing competing customer needs,
- maintaining fair treatment for all customers within and across routes, and
- providing frameworks for the seamless planning and operation of the network.

Journey Time

Capacity

Performance
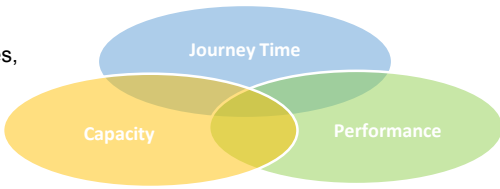
The Present – Where we are now

- Working with route business and external customers and stakeholders to embed our new organisation and operating model.
- Implementing our Advisory Board to support openness and transparency, supported by Standing Advisory Groups
- Developing our CP6 Delivery Plan to set out the priorities of our customers, our 2019/2020 outputs and the way in which we will develop future years
- Working with industry to respond to challenges in developing the May and December 2018 timetables and the associated Informed Traveller impact
- Rolling out Continuous Modular Strategic Planning to put the needs of passengers and freight users at the centre of our plans out of a more continuous process of strategic planning.
- Working with funders to understand the priorities for CP6 and beyond and the framework within which enhancements are funded.
- In the process of strengthening our analysis, franchising and capacity planning teams in readiness for CP6

How we will get to the future

- **Customer services:** With a System Operator lead embedded in each route, and a range of network-level engagements, we will continue to ensure that customer priorities are factored in to the work of the System Operator and support the route businesses to make informed decisions.
- **People capability:** We will be developing improved people retention and capability development, particularly in capacity planning to address an historically high turnover and a loss of talent to other employers and sectors.
- **Technology & systems:** The development and deployment of new technologies to prevent train planning errors is key to our longer term vision to deliver a zero defect plan.
- **Process improvements:** Our End-to-End Planning Programme will improve line of sight between strategic planning and delivery of timetable change.

Plan of activities (8-year horizon)

Customer services
- We will put passengers and freight end-users at the heart of more agile and responsive planning that will provide choices to inform national and devolved decision making by funders.
- Continuous Modular Strategic Planning (CMSP) will allow us to better capture the voice of the passenger and freight user from TOCs / FOCs as part of our planning process and allow us to consult more effectively including via Route Boards and Route Investment Review Groups.
- Our enhanced role in the franchise process will deliver better outcomes for end users, the industry and Network Rail.
- We will be working to improve alignment and compliance with Part D of the Network Code to meet customer expectations, consistently and compliantly.
- Improvements will better recognise commercial drivers of operators in timetable development including journey time, and resource use.

People capability
- We will develop flexibility in the workforce to enable easy reassignment of planners to the highest priority tasks.
- Professionalisation of Operational Planning careers through competence development and accreditation.
- We will continue investment in our competency framework and an appropriate assurance regime.
- Establishment of effective project management and business change capabilities will aid the delivery and embedding of change in the industry.
- We are developing and aligning the role and capabilities of the client within System Operator with clear accountabilities and resources.
- Developing a broad range of analytical capabilities will enable us to position ourselves as the trusted advisor and analytical expert for industry stakeholders.

System Operator

Technology & systems
- We will focus on more accurate Timetable Planning Rules, compliance and removal of conflicts to help build a timetable with increased train services and without compromising reliability.
- Developments in the Train Planning System will automate manual repeat processes, and replace historic work practices where possible - speeding up the resolution of issues in timetables and reducing delays in the long run for passengers.
- We will develop integrated datasets to exploit rich data sources to improve the timetable quality.
- Extending our economic analysis capability will help the industry and wider transport sector make better decisions.
- Developing a single shared IT platform that will provide easy access to data for analysis.
- Whole system modelling will support better long-term advice and decision making.

Process improvements
- Early stage project development will progress enhancement proposals to the Decision to Develop point in the Investment Decision Framework.
- Improvements to franchising support provide for greater alignment between franchise outcomes, route outputs and network capabilities.
- We will support Event Steering Groups (ESG) with a Code of Practice (CoP) defining input quality for ESGs, implementation and project timescales. The CoP will be supported by a competency framework defining the capabilities required of ESG attendees to ensure the right level of stakeholder engagement across the industry.
- Continued improvements in our appraisal mechanisms aim to better support the case for transformational projects where changes can drive demand, and not just follow it. We will work with funders on these opportunities and do more to consider integrated transport and land use issues in a more holistic way as demand for housing continues to grow.

Material changes in this version

Updated to reflect;
- Our CP6 plan and ORR draft determination
- Outcomes of the 17/18 financial year
- Implementation of SO governance framework

Continuous improvement

System Operator Structured Continuous Improvement (Lean) programme

Review of Long Term Planning with DfT

Moving to 'modular strategic planning'

Moving to Route-based Enhancement Planning

Improving System Operator client capability

Strengthened System Operator policy and programme team

Related documents

Capacity Planning Short Form Strategy

System Operator Strategic Business Plan

Guide to the System Operator Governance Framework

System Operator 'About us'

Project Delivery (IP) - Short Form Strategy

Purpose & Scope

Infrastructure Projects' vision is to be the best infrastructure delivery organisation in the UK. This is to be evidenced by safely delivering infrastructure projects on time, to requirements and cost for clients and also our P3M3 score.

The Future – Where we want to be

IP's leadership team has developed seven strategic objectives to support the achievement of this ambition. These set out to unify the business operating model across IP's Regions, Programmes and Functions, ensuring that Route customers can expect services which match their needs and expectations to achieve their Route Strategic Business Plans. IP's seven strategic objectives are:

1.   Support NR clients in developing their propositions for increasing network capacity.

2.   Safely deliver infrastructure projects 'on time', 'on spec', 'on cost' for our Route clients.

3.   Support STED and deliver Digital Railway.

4.   Fulfil our obligations for NR and externally (DfT, Regional government, Operators & ORR.)

5.   Provide the right level, quality and volume of people resource.

6.   Lead and influence the UK rail industry and are a client of choice.

7.   Develop an agile business.

Further detail about the processes and systems supporting the strategic objectives are defined in IP's 'One Vision, One Way' programme which underpins IP's management system. Targets to support these objectives have been developed as part of the CP6 Strategic Business Plan.

The Present – Where we are now

Following the Hendy and Shaw reviews which led to a re-baselining of the CP5 Enhancement Delivery Plan 18 months into the control period, substantial changes have been made to how IP develops, manages and delivers major programmes. The Enhancement Improvement Programme (EIP) agreed with the ORR has been implemented to address concerns raised on project development and delivery; this includes strengthening the functions in the centre and introducing the professions to support the operations of a matrix organisation. In response to the recommendations from the EIP, IP has developed a change programme designed to ensure we have the right capabilities and processes with a coordinated and prioritised approach to risk management and business change. The One Vision One Way (1V1W) programme will develop a consistent approach to strengthening our internal engine, making sure we're in the right shape to be able to deliver the wider Network Rail Strategy and help to achieve our vison of being the best rail infrastructure project delivery organisation in the UK. A new Information Management System (IMS) has recently gone live to support the delivery of the programme objectives.

In addition, IP's performance on handback from possession for scheduled works has improved by 50% from the start of the control period following improvements in standards and processes after the widely publicised possession over-runs in London in Dec 2014 when IP's reputation for delivery became the subject of external scrutiny. Since then, IP has demonstrated the clear linkage between safety and possession hand-back performance, consistently delivering top level performance (99.7% on time hand-back). Delay minutes from possession overruns now stands at an all time low and account for only 0.5% of the total Network Rail.

Delivery performance on enhancements has improved since the Hendy Review. All major projects are now subject to independent peer reviews which are part of business as usual within project delivery, senior managers review each other's progress providing critical insights and recommendations. We continue to refine and improve our level 2 assurance and reporting. There are also changes to the treatment of enhancements in CP6 – these will follow the progressive approach set out in the Memorandum of Understanding agreed between Network Rail and the DfT in 2016, with reviews taking place at the key stage gates of development, design and delivery. Commitment to deliver schemes in CP6 will therefore be made outside the periodic review to ensure they are adequately developed. This provides greater flexibility to develop a pipeline of schemes which are only committed for delivery when they are sufficiently developed and their costs and outputs are well defined. These changes will however challenge early engagement with the supply chain and feasibility of committed enhancement schemes which could pose risks to supply chain delivery efficiencies. IP is working closely with the System Operator to develop the investment decision framework (IDF) to support the new process of developing and delivering enhancements projects in CP6.

IP have restructured its in house design capability to provide a more integrated multi-disciplinary service, aligned to the route structure, and will strengthen its capabilities across IP in systems engineering and BIM.

How we will get to the future

The operating landscape for CP6 will change significantly. With limited funds available to the Government to invest in the railway, enhancement funding will be more difficult to obtain. Therefore, there is a real aspiration to increase third party investment in the railway infrastructure and also make it easier for other project delivery organisations to work on the network thereby increasing contestability which will drive innovation and reduce costs. IP welcomes this increased competition as this will provide the right environment to benchmark its services, costs and processes against other delivery organisations. This will help IP gain independent perspective about how well it is performing, define best practices and identify improvement opportunities.

IP is positioning itself to maximise the benefits of a more competitive operating environment with the development of a culture of agility and flexibility coupled with the right professional capabilities and competencies. As a concept, agility has the opportunity to become embedded within IP at a number of levels and with a number of strategic benefits for the organisation.

More strategically, Ernst and Young and KPMG have recently completed reviews on the effectiveness of IP and how NR should best client capital delivery. They made recommendations on the framework of how capital delivery should be organised within NR. These recommendations led to further reviews within NR with IP working collaboratively with the Routes to propose a new structure to the delivery of capital projects. A new Capital Delivery Directorate (CDD) is being developed to replace the current IP structure. The creation of the CDD is underpinned by a wider organisational change and review of the Government and NRs operating model for enhancements planning and delivery.

In addition, the following changes have been proposed to NR's delivery of capital works:

* Closer alignment between Route Businesses and CDD (with clear accountabilities)
* Strengthened intelligent client capability in Routes Businesses
* 3rd party contestability encouraged
* Capital delivery excellence across Network Rail
* Route based capital delivery teams

Also, the IP scorecards will be aligned to the Route Businesses. The benefits of the alignment are:

* New scorecard will provide increased measures for the new Capital Delivery Directorate and the Route Businesses.
* New structure and CP6 Route aligned procurement strategy enables implementation of unit rate (cost and productivity) comparisons between Routes, driving performance and best practice (metrics are being developed for CP6).
* Implementation of consistent Level 2 assurance processes across CDD and Route organisation such as DWWP, One Vision One Way and a consistent KPI suite.
* Greater transparency.

CDD will work to ensure that it is able to lead and influence the industry as a client of choice through the deployment of best practices, efficient and cost effective delivery of projects.

Plan of activities (8-year horizon)

* Plans for project delivery will align to the industry timeline and Network Rail's business planning processes.
* One vision, one way programme implementation (including implementation of Professions within CDD).
* Implementation of the new Investment Decision Framework (IDF) for the capital delivery of enhancements projects.
* Contestability and operating in a competitive environment.
* Development of an Agile Workforce.
* Implementation of the selected option of Route Capital Delivery.
* Implementation of proposed changes to the operating model.

Material changes in this version

This current version is 1.5 of the short form strategy. Updates from version 1.4 include:

* Updates on where we are now – the implementation of 1V1W and new IDF.
* Updates on how we will get to the future on the proposed changes to the operating model and the delivery of capital projects within NR.
* Updates on the 8-year horizon plan to include the implementation of the IDF and the proposed changes to the operating model.

Continuous improvement

The management system of Infrastructure Projects / new CDD and the implementation of One Vision, One Way.

The National Electrification Efficiency Plan.

Implementation of the Enhancements Improvement Plan with supporting evidence provided to ORR.

Application of Risk & Value principles; releasing contingency as projects progress and certainty levels increase, combined with opportunities to out-perform.

Delivery of the CP5 Hendy Programme against the revised Enhancements Delivery Plan baseline.

Improvements in the delivery of renewals and / or management of expectations with regard to renewals.

Continued development and implementation of the P3M3 maturity model across IP/ CDD.

Related documents

* New IP Operating model (new CDD Org model)
* CP6 IP Scorecard (new CDD Scorecard)
* Strategic Plan for IP (RF6)
* IP (new CDD) Enterprise Risk & Value Framework
* Investment Decision Framework

Property - Short Form Strategy

Purpose & Scope

- **Status:** Centre led, Routes fully informed
- **Scope:** Manage and grow the income on all commercialisable property assets for business as usual, Asset disposal strategy to raise £1.3bn cash for enhancements, release land for 12,000 new homes (included within our resi programme)
- Provide excellent customer service to our rail passengers, tenants and neighbours
- Support the safe and efficient operation of the railway by providing professional property services and fit for purpose working environments
- Critical dependencies:
    - Hendy enhancement outputs dependent on raising £1.3bn cash and £0.8bn PSNB generating disposals where the proceeds can be reinvested in the railway .
    - CP6 submission dependent on Retail investment funding of £300m delivering £32m of CP6 income and £136m of working capital to support joint venture development activity.
- To attract third party investment into the railway and help to develop and improve the station estate
- Planning horizon: CP5/6

The Future – Where we want to be

- To raise £1.3bn cash from Property Asset sales to be used to fund the railway to the end of CP5. Continue to drive and deliver CP5 targets in line with original determination until assets are sold.
- To deliver a robust residential plan to release land for 12,000 homes by 2020 across Britain
- Co-ordinate Station activity and nurture a self sustaining model for the future of NR's Stations for the benefit of railway and local communities
- Medium and long term objectives:
    - Delivery our Retail strategy to provide long term sustainable above inflation income growth to make a valuable contribution to funding the railway dependent upon a £300m station improvement fund and continue to improve customer satisfaction at stations.
    - To work with routes to create effective Land Strategies to deliver £125m of CP6 land disposals and bring in third party capital to fund new route assets such as MDUs, car parks, stations etc.
    - In CP6 Property have greater ambitions to grow the sustainable income model and to use more joint venture vehicles to deliver more developments generating more cash and deliver more station benefits for the wider railway.
    - Continue to drive efficiencies in our business by embedding continuous business improvement (under the banner of 'Better Every Day') into the business' culture to ensure our services provide value for money for the traveling public and the tax payer.

The Present – Where we are now

- Currently on Track to deliver £1.3bn in cash asset disposals in CP5, Project Condor (Commercial Estate) is the most significant of these and is expected to complete in 2018/19 delivering £1.1bn.
- Continue to achieve Business as Usual targets including absorbing additional costs for the Resi programme.
- Achieve a 2017/18 net profit before cumulo of £319m and continue to deliver on CP5 determination
- We plan to deliver an operating profit of £1,317m on BAU activities over the course of CP5. In addition a further £268m will be generated from BAU disposals. LFL annual turnover is projected to increase by 31% over the course of CP5 and LFL net profit by 32%.
- We are on course to deliver our CP5 enhancement plan which will provide income for the CP6 and beyond
- Track and deliver on our in year milestones in our agreed business plan.
- Currently on track to deliver Property's safety and sustainability improvement plans and close 85% of our close calls within 90 days.
- Project Osprey (Stations) has completed its current phase of work. Next steps are being discussed with DfT
- We originally planned to release land to facilitate the building of 12,000 new homes. We are aiming to exceed this, although the final outcome is unlikely to reach the Government stretch target of 36,000 homes.

Link to Property Scorecard (Appendix 1)

How we will get to the future

- What approaches we will take to reach our goals & objectives: Disposal Programme and a robust Resi milestone tracker will enable Property to achieved their Strategy. Accurate and Deliverable Business As Usual Targets with transparent KPI's to ensure Property stay on track.
- Main constraints: The availability of funding to invest in managed station retail and provide working capital for our joint venture development activity
- Key assumptions:
    - Disposal Programme is raising proceeds to be reinvested in the railway. What other options have been considered, and why did we choose the path taken: Considered allowing third parties to invest in station retail to continue to deliver for customer however income growth was poor and could not be made to generate PSNB credits.
    - Property's focus on the Must Wins is a clear focus on delivering and sticking to the Hendy plan but also driving performance through reduction in DPI, with a specific focus on improving access to the railway
    - Alongside the must wins Property are aligned to the 5 C's most notably attracting inward investment into the railway. Property will continue to share best practice and contribute to the wider business initiatives to make best use of its expertise and experience in commercial activities and initiatives. In particular, we will facilitate JVs on assets where significant railway benefits can be subsidised by property development activity e.g. Clapham Junction. Further to this we will develop expertise in securing new sources of funding which are compliant with ESA10.
    - We are already planning our CP6 activity assuming that £300m station investment fund is made available to grow retail income and enhance the passenger experience and a further £136m of working capital is available to support joint venture development activity to deliver new homes, economic growth and a future source of railway funds
    - Review the Development Team in terms of resource and capability, to ensure alignment with the key objective of regenerating stations

- Property's objectives align to the 5C's and the wider company objectives:
    Property's 5 strategic themes:
        1. Working in partnership with the routes to use our knowledge and expertise to improve experiences for passengers, reduce costs for the sector, secure new sources of funding and create great places for businesses and communities.
        2. Grow our sustainable model by generating income to reinvest and create a better railway for a better Britain.
        3. Help fund Network Rail's Railway Upgrade Plan by selling assets not core to Network Rail operations.
        4. Release land for housing to achieve government targets
        5. Delight our customers by putting them at the heart of everything we do

Plan of activities (8-year horizon)

- Complete Asset Disposal programme
- Deliver 12,000 new homes under Resi Project by 2020
- Deliver on Property's projections and targets for both CP5 and CP6 by delivering on Property's 5 strategic themes
- Create Asset Management strategies that focus on sustainable above inflation income growth as a continued and important source of railway funding
- Work in partnership with routes to create land strategies which release surplus asset and facilitate re-investment in railway assets such as new, re-located MDUs and provide more cost effective railway access solutions.
- Attract external capital into the railway through the creation and funding of innovative JVs such as Innova, Solum and West Hampstead
- Create a first class interface between the Project Condor purchaser and Network Rail which maintains the safe and efficient operation of the railway
- Implement a new development organisation to seize opportunities at stations for homes, improved facilities for railway users and generating funds

Material changes in this version

General refresh of figures

Further explanation added

JV Working capital requirements added

£300m investment in stations

Greater ambition for Property to deliver a sustainable income model

Increase delivery through joint venture vehicles to generate more cash for the business, residential and station benefits

Continuous improvement

Under the banner of 'Better Every Day' we have workstreams in place in place to review and improve both strategy and delivery on disposals and business as usual activities

Workstreams are guided by the leadership team and results discussed   and monitored at periodic management meetings

Related documents

Disposal programme

Resi programme

Quality - Short Form Strategy

Purpose & Scope

To deliver high quality performance, meeting our customers expectations in the most cost efficient way.
The scope of the strategy is :
- **Governance**: to develop, implement and maintain effective and efficient controls for network rail through an integrated management system (IMS) that realises the benefits of business critical rules (BCR).
- **Assurance**: to enhance our 2nd level assurance to improve the understanding of the effectiveness of our controls and highlight improvement opportunity.
- **Improvement**: to drive business performance by establishing and operating a framework for continuous improvement for Network Rail

The Future – Where we want to be

Governance

- A single management system, mapped as compliant with the relevant standards (ISO9k, 14k, 45k, 55k etc)
- An IMS that is based upon an agreed process architecture with accountabilities defined.
- Content that is easy to navigate and find, and simple and efficient to follow.
- Enhanced compliance, better currency, links to risk and enables improvement.

Assurance

- A clear understanding of the degree of compliance, which is linked to process architecture.
- Clarity of the accountability of control owners in currency, deployment and assurance
- The connection of governance, assurance improvement using an enhanced understanding of risk.
- Strategic analysis of the level 2 assurance and predictive measures.
- A single certification strategy to simplify certification and reduce costs

Improvement

- A consistent definition for improvement capability deployed across network rail.
- A single framework for improvement defining methods, governance, process and capability.
- An established culture of improvement at all levels
- Improvement that is shared and embedded in our governance arrangements.

The Present – Where we are now

Governance

- 26 Separate Management System and ~35k pieces of management system content.
- Separate and overlapping programmes of work to deliver compliance to a range of standards
- Un-integrated requirements that are unnecessarily complex and restrictive
- Limited links between risk and controls.
- Systems that are costly to maintain and standards that are not current

Assurance

- Unclear levels of compliance to our system of standards and controls
- Uncertainty around the accountability of controls owners
- Assurance that is predominantly focussed on tactical issues and reactive
- No links between assurance and a process architecture for the company.
- Multiple ad-hoc certifications with no economy of scale in certification costs

Improvement

- Improvement roles have weak and inconsistent job descriptions.
- Limited benchmarking and sharing of best practice and knowledge
- Inconsistent approaches to continuous improvement – methodologies, benefits etc
- Lean leadership principles are missing from the organisation.

How we will get to the future

- The vision will be delivered through 5 programmes of work:

Quality Strategy

- Defining the Quality Strategy and priorities for Network Rail
- Establishing the Quality & Improvement profession – capability, role definitions, structure, professional membership and communities of practice
- Defining the governance and benefit of Quality – KPIs, priorities and strategic alignment

Integrated Management System

- Bringing together 26+ discrete management systems to a modern process tool
- Achieving clear, mapped compliance to a range of agreed core standards (ISO55000 etc.)
- Embedding a process architecture for Network Rail that clarifies accountability
- Delivering clarity of accountability for process owners

Standards & Controls

- Linking bow ties and controls to ensure controls are risk focussed and efficient
- Increasing clarity, simplicity and understanding of requirements
- Enabling well governed local variation in support of devolution
- Improving currency of our standards

Assurance Framework

- Supporting the business in defining and realising a model of assurance for 3 lines
- Developing risk-based methodologies for 2nd Line Assurance
- Linking line 1 and 2 assurance to control owners to support control development
- Delivering a certification strategy for management systems compliance

Strategic Improvement Enabler

- Data driven improvement – linked to process, risk and assurance data providing intelligence to risk owners in the business to kick start improvement or corrective initiatives
- Supporting route and department programmes of improvement
- Developing an improvement culture, behaviours and objectives

Plan of activities (8-year horizon)

- The programmes of work will be governed by STE / HSEQ governance, and where appropriate, MSP4NR.
- The Integrated Management System is included within the Home Safe Plan.
- The following key deliverables are scheduled for CP5:
    - All aspects of the Quality Strategy
    - IMS phase 1 including management systems compliance with ISO9001, ISO14001, ISO45001 and ISO55000.
    - Improvements to the currency and management of our system of standards and controls
    - Publication of bow ties, rules and links between risks and controls
    - Confirmation of the 3 line assurance model
    - A certification strategy for management systems conformance
    - A framework for structured continuous improvement
- And the following in CP6:
    - IMS Phase 2 including transfer to modern process tool
    - IMS Phase 3 including development of LEAN process optimisation methodology
    - Improvement support to the Transformation and Efficiency programmes.
- And beyond CP6:
    - Further enhancements to the Quality Maturity
    - Ongoing development of the continuous improvement culture and deliverables.

home safe plan

A better railway for a better Britain

Safety – Short Form strategy

Purpose & Scope

Drive continued and sustainable improvement of safety in close collaboration between the centre and the routes and with the key stakeholders inside and outside Network Rail focused on culture, systems and technology changes to deliver our vison of Everyone Home Safe Every Day. The approach will at all times be risk based.
Protect our passengers, the public close to the railway and the workforce efficiently through high expertise, efficient action plans and value based assurance at all levels in the business

Achieve:
- Significant improvement of workforce safety eliminating fatalities and serious injuries
- Significant improvement of public and passenger protection reducing level crossing, trespass and train accident risk
- Improved risk management avoiding high potential incidents
- Elimination of repeated incidents through investigations, lessons learned and process optimisation
- Improved compliance culture change leading to general safety performance improvements

The Future – Where we want to be

We will become a company where all people – both railway workers and everyone using and neighbouring the railway - are feeling cared for. A company where people care for themselves and each other when it comes to safety and where we have achieved a mature safety culture. We will be able to benchmark ourselves with the best inside and outside the rail industry. We intend to remain Europe's safest railway. We will achieve this through delivery of the Home Safe Plan as well as local plans with projects selected to provide the highest possible safety impact versus cost, through implementing the new Integrated Management System and through collaboratively working with the wider rail industry and stakeholders to implement Leading H&S on Britain's Railway. Risk management, compliance and assurance will be integral parts of the work.

We will through collaborative efforts
- Always take a risk based approach to safety
- Always ensure legal compliance with safety legislation as the lowest common denominator
- Select and train our leaders to become strong safety leaders
- Keep focus on culture, system and technology at all times
- Always focus our efforts on workforce safety as well as public and passenger safety
- Drive continuous safety improvement using LEAN principles
- Carry out high quality assurance activities
- Drive lessons learned to avoid repeating mistakes and keep improving

The Present – Where we are now

- Network Rail's strategies are aligned with the cross-industry 'Leading Health and Safety on Britain's Railway – A strategy for working together', coordinated by the RSSB.
- Workforce safety is showing a substantial reduction in LTIFR since the end of CP4 and is at a historic low but the rate still compares unfavourably to other safety critical industries. A step change is needed to be able to benchmark with the best and to move the company to the overall vision to become a company where everyone goes home safe every day
- Level crossing fatalities have reduced and level crossing risk is historic low. Still we are delivering risk reductions slower than planned and our use of technology can be enhanced
- As passenger growth increases, safety in stations sees continuing pressure, e.g. at the PTI where risk tools are in use to drive improvement
- Train accident risk benchmarking places Network Rail as the safest in Europe and risk at a historic low. Still significant risks remain, including with weather sensitive assets and operations/SPADs.
- The Home Safe Plan contains the highest priority safety improvement projects that help deliver the strategies. These projects are all risk-based.. The projects are owned by the business with business champions from across the business and driven by the central QHSE team.

How we will get to the future

Do what matters:

Driving Safety Excellence in Devolution ensuring our safety strategy is aligned with our strategic business plans which we will deliver by having the right competencies and capabilities as well as the right split of accountabilities and processes. This will be enables by developing our functional culture of collaboration with shared objectives and targets across the organisation
- Continue to successfully deliver against Home Safe Plan Projects and local plans and projects
- Ensure all our standards, policies and procedures are simplified, relevant, up to date and in line with health and safety legislation
- Prior to the commencement of any new projects, undertake a thorough risk impact assessment using the Project Hopper process by focussing on the highest impact projects from the hopper as load and capacity allow
- Demonstrate and evidence benefit realisation of all Home Safe Plan projects as well as local initiatives and always do lessons learned and project reviews straight after and periods after project closure for sustainability and for the value of new projects
- Establish the 'Return on Investment' to drive forward full deployment of safety projects and programmes across the business
- Utilise the Integrated Management System to improve safety performance in all areas of the business
- Use LEAN principles

everyone home safe every day

home safe plan

Plan of activities (8-year horizon)

Deliver activities according to strategic business plan including
- Deliver high priority national projects through the Home Safe Plan as well as local plans based on thorough risk impact assessments.
- Protect our track workers through modern technology delivering the Safer Trackside Worker programme.
- Look out for our full workforce through fatigue and manual handling programmes.
- Reduce level crossing risk using 'As Low As Reasonably Practical' approach and providing expertise and assurance.
- Reduce train accident risk through monitoring of train accident risk reduction milestones and volumes across the business.
- Drive leadership and culture change through training and awareness programmes
- Implement a new Integrated Management System and drive compliance as well as structures process improvement related to safety
- Ensuring the right safety competencies and capabilities are in the right places across the organisation to deliver the improvements supported by an effective competency framework

Drive continued improvement
- Safety process optimisation following LEAN principles inside the Integrated Management System (IMS)
- Keep prioritising new projects, by undertaking relevant risk impact assessment using the Project Hopper process into the Home Safe Plan
- Undertake necessary research and pilot programmes to evidence the need for change and innovation
- Ensure load and capacity is aligned with the Home Safe Plan across the business and devolve activities to the routes as appropriate
- Provide support and technical authority oversight to ensure all Route businesses and functions deliver against improvement plans
- Align and maintain communications to ensure the consistent high focus on Safety
- Maintain the competency framework for safety and Input into the wider business-wide competency framework for everyone discharging safety roles
- Drive safety compliance and assurance effectively across the organisation

Material changes in this version

A new strategy document separating Health and Safety

Continuous improvement

Yearly management review in QHSE Framework Committee
Level 1 and 2 Enterprise Risk Register (ERR)
External audit on
Integrated management systems
Maintaining authorisation of HSMS as part of the Integrated Management System

Related documents

SHEP report
Network Rail QHSE Strategy (Under Development to align with CP6 strategic business plans)

Sustainable Development - Short Form Strategy

Purpose & Scope

The Sustainable Development (SD) strategy is a central framework against which the routes and other operational business areas set/deliver their priorities to enable sustainable and responsible business performance. The SD strategy covers a broad spectrum of issues including:
- Environmental responsibility – effective management of natural resources and waste, noise, disturbance and pollution prevention, environmental protection, land (including biodiversity) and buildings management;
- Social responsibility – being a caring neighbour, keeping communities safe, inspiring tomorrow's workforce, making travel accessible, respecting rail history and heritage, creating engaged employees and positive industry partnerships; and
- Enviro/socio economic responsibility – energy and carbon reduction and income generation, weather resilience and climate change adaptation and creating local socio-economic growth and supporting Britain's wider economic development.

Dependencies include effective management systems framework for each key area (environmental management, social performance management and energy and carbon management in particular) as well as a robust asset management system able to respond to climate change considerations. Planning assumptions are detailed in the 'How we will get to the future' area on following page. The planning horizon here looks to the end of CP6, although some areas covered, such as decarbonisation and climate change adaptation considerations, move well beyond that horizon.

The Future – Where we want to be

CP6 future planning is reliant on realising the full implementation of improvements identified and delivered in CP5. Delivering this is a baseline requirement for delivering responsible business operations in CP6 and beyond. This is an emerging risk agenda where legislation and expectations of stakeholders (funders/government, lineside neighbours, passengers, and TOCs/FOCs) are likely to be much higher than they are today. Apart from the effective management (including continuous improvement) of the above broad SD focus areas. The key signifiers and expected strategic improvement outcomes from now until the end of CP6 period are:

Get the basics right (now to end of CP5)
- Robust baseline of data to inform decisions;
- Pilot projects, to demonstrate business cases, develop tools and methodologies and deliver benefits;
- Targets set and action plans agreed; and
- Key suppliers engaged to deliver environmental, social and socio/enviro economic benefits.

Make efficiencies and avoid surprises (now to end of CP6)
- Environmental, social and socio/enviro economic aspects integrated in the planning and design stages of work;
- Sustainable Development saving targets met; and
- Network Rail is an active and welcomed member of the local community.

Be industry leaders (CP6 and beyond)
- Going beyond compliance to positively impact the environment - including proactively managing weather and climate change resilience;
- Network Rail known as a leader on environmentally and socially responsible activities within its supply chain community; and
- Local community expectations are exceeded.

The Present – Where we are now

Currently, this is an immature area. The business gains from managing SD risks are largely unrecognised and, as a result, people are not being held to account on performance and limited resources are allocated. Network Rail's performance is behind its peers and supplier base, the CP5 carbon target does not reflect the level of ambition of the Government in signing the Paris Agreement (under the United Nations Framework Convention on Climate Change) and cost saving opportunities are being missed.

For the rest of CP5 Sustainable Development work is therefore focused on getting the basics right, including: developing a robust baseline of data to inform decisions; better understanding the risks and benefits through pilot projects which build business cases for action; testing methodologies for wider-sharing, and setting targets and action plans. All underpinned by support from STE to integrate sustainability in to existing business processes alongside the development of the frameworks, tools and guidance that the operational business units need in order to drive positive change across environmental, social and enviro/socio economic areas.

How we will get to the future

Delivery of the Environment and Sustainable Development programme including integrating SD work:
- Delivering the Responsible Railway Plan improvement projects on priority action areas
- Leadership engagement
- Competency assessment/training
- Communication & stakeholder engagement
- Management Systems including environment and social requirements for projects, procurement and operations (integrated within the IMS work-stream)

Priority outcomes and improvement focus areas for Network Rail for CP6 are:

Managing sustainability impacts in line with industry good business practice
- Compliant to ISO14001 (Environmental Management System) & ISO50001 (Energy Management Standard) as part of the Integrated Management System.

Protecting and enhancing the environment and reducing our environmental impact
- Non-traction carbon emissions reduced by 25% and energy use reduced by 18% (from CP5 exit baseline).
- Zero waste is sent to landfill (non-hazardous), 90% by weight is recycled or beneficially re-used.
- Major infrastructure projects (above £20m) have a net positive effect on GB biodiversity and all maintenance and renewals activities (above £5,000 or 150 metres in length) require a biodiversity risk assessment and evidence of opportunities taken to maximise biodiversity gain.

Creating a railway that is resilient to climate change
- Demonstrable improvement in performance on adverse compared to normal weather days from increased asset resilience.

Delivering social value to local communities, passengers and employees
- All projects over £20m, suppliers and contracts have Social Performance Plans in place, with clear measures and evidence of benefits delivered.

Building and managing our assets sustainably
- All projects above £20m can demonstrate savings in capital carbon.
- Environment and Social criteria are being used in all renewals, maintenance and new build scopes
- Procurement practice is independently assured as being in line with ISO 20400 (Sustainable Procurement).

Plan of activities (8-year horizon)

The focus of work in the Sustainable Development arena will be on enabling the priority outcomes outlined above. This will ensure the high priority risks facing the business will be effectively managed and the potential for reputational and regulatory impacts (such as through adverse media attention/prosecution for breaching environmental regulations) will be reduced. Implementation of the Environment and Social Minimum Requirements standards for Design, Construction and Maintenance (compliance date March 2019) and Goods and Services (in development) will go a long way to supporting this work over the course of CP6. Continued engagement across the business to promote sustainability leadership and development of competency and capability will raise the level of environmental and social performance across the board. Development of long-term targets and underpinning strategies to further reduce carbon emissions in line with UK and global commitments will necessitate a major step-change in operational practice and application of new and emerging energy systems and technologies.

Key activities over the next eight years include:
- Make environmental management part of the Integrated Management System compliant to ISO14001 and support the business to manage resource consumption, responsible sourcing and better management of lineside habitat to reduce ecological surprises.
- Include social performance management in the Integrated Management System to improve reputation, manage our impact on lineside neighbours, maximize opportunities for socio-economic growth and invest in local communities through our employee volunteering programme.
- Deliver energy & carbon strategies to enable business units to implement efficiency programmes to reduce energy costs, capital carbon, generate income and reduce carbon footprint and implement an energy management system.
- Deliver a weather resilience and climate change adaptation action plan – enhance asset and infrastructure resilience to current and future weather conditions and streamline preparation for, response to, and recovery from extreme weather events.
- Drive environment and sustainability awareness through leadership training, competence development and awareness campaigns.

In addition to the work outlined above, national projects that will most effectively help us to responsibly manage our natural environment and add social value to the communities we serve and help us achieve our vision of a "Railway Fit for the Future" will be included in the Responsible Railway Plan (RRP).

Material changes in this version

- Local dependency map, Continuous Improvements and Related Documents sections updated
- Minor phrasing changes to priority outcomes for CP6 (intent unchanged)
- Update to 8-year horizon plan of activities
- Minor text amendments

Continuous improvement

This strategy and work is reviewed and improvements implemented through the following groups and plans:
- Environment Improvement Group
- Social Performance Improvement Group
- Energy Management Steering Group
- Weather Resilience Group
- QHSE Integration Group
- Responsible Railway Plan projects

Related documents

Environment and Social Policy
Rail Sustainable Development Principles
Environment and Social Appraisal
Environment and Social Management Plan
Tools and guidance on Safety Central
Responsible Railway Plan

NetworkRail

Purpose & Scope

Research, Development and Technology (R,D&T) drives future efficiency – it has already enabled efficiencies and better ways of working for example with track inspection through Plain Line Pattern Recognition laser scanning on measurement trains. R,D&T builds new technical capability - creating the technology demonstrators, supporting first in class deployments and leading to new Business As Usual capability to drive new value from the railway to improve safety, reliability, cost efficiency and growth. The scope includes Shift2Rail and the Rail Innovation Development Centres as part of the UK Rail Research and Innovation Network.

R,D&T is aligned to the Rail Technical Strategy Capability Delivery Plan (RTS CDP) which forms the industry's blueprint to transform the railway against 12 key capabilities. R,D&T is scoped to focus on priorities for the rail infrastructure to meet the needs of the routes and other NR businesses by addressing the challenges and strategic goals under asset sustainability, network performance, safety, security, financial efficiency and growth. The priorities focus on 5 of the industry's 12 key capabilities (running trains closer together; minimal disruption to train services; more value from data; services timed to the second; and low cost rail solutions) with partial delivery against a further 3 capabilities (optimum energy use; more space on trains; and accelerated R,D&T deployment).

The Future – Where we want to be

Over 30 years: To create new infrastructure-related capabilities enabling optimisation of today's railway and transformation to a future railway as a substantial and integral part of achieving the Rail Technical Strategy vision for the whole railway system. This aims to halve unit costs, double capacity, halve carbon, transform the customer experience, eliminate injuries and create reliable performance.

Over 8 years: To closely connect R,D&T investment with customer need led by strong value propositions. To create a resilient 7-day railway with world-class asset management which improves reliability, increases capacity and service levels and reduces delays. Trains and track equipment are specified through a whole-system approach to monitor each other and cause less damage. Intelligent maintenance provides accurate timely information for condition-based preventative intervention. Delivery will contribute to, and be supported by, a railway sector deal [subject to its agreement with government] to value and incentivise new capabilities, generating value to the UK economy through increased exports as well as more effective inward investment.

To seek commercial funding and partnerships with third parties. The expectation is that at least a third of R,D&T investment will be funded by third parties through collaborations in CP6 as projects are matched by £0.50 from third parties for every £1 of direct funding. This is expected to increase over time with measures to generate confidence and quality of forward view of the market as NR and other industry clients work hand-in-hand with suppliers.

Further value will be leveraged through collaborative partnerships such as the continued joint undertaking as part of the Shift2Rail consortium and with Highways England.

To be operating a clear, well understood, adequately funded and low friction process to make ideas tangible, de-risking the product (systems or equipment) or service used to deliver the idea and building confidence in the business case. This is particularly important to overcome two 'valleys of death' on the route to market: industrialisation including a demonstrator; and commercialisation where the value proposition becomes real.

The Present – Where we are now

One joined-up industry plan for R,D&T - the RTS CDP – was published alongside the Initial Industry Advice for CP6 in January 2017 by the Rail Delivery Group and Rail Supply Group. A proposition was put to the ORR to fund the whole RTS CDP through NR's CP6 determination and settlement. However, affordability considerations and a steer from the ORR to target a more specific range of infrastructure challenges has led to a re-scoped proposal that prioritises asset sustainability by reducing the need, reducing the cost and increasing the effectiveness of asset management interventions. This proposal is in development and will be submitted by 31 August 2018.

The temporary delivery organisation set up under the RSSB to prepare for CP6 is now giving way to a delivery team within Group STE established to focus on the prioritised scope for R,D&T in CP6. Plans are being established for priority programmes in CP6 building on the foundations created in CP5 – including governance and an R,D&T pipeline - and a clear line of sight from R,D&T delivery to meet business customer needs. The R,D&T is being closely connected with priorities for the Routes.

Delivering the Shift2Rail 7-year R,D&T programme (total collaborative funding £690M) through a European Public-Private Joint Undertaking. Developing the two Rail Innovation Development Centres (RIDCs) - acquired in 2009 and 2014 - from single use to multi-customer use. RIDCs provide testing and validation facilities for trains, plant and equipment for the industry and already supporting several rail industry major programmes including ETCS First in Class for the Digital Railway and the Intercity Express Programme.

How we will get to the future

A well-planned approach. The R,D&T journey is different for every idea depending on the maturity of the technology used, how easy it is to apply and integrate with legacy processes and equipment, how readily it can be supported and maintained and the challenge of realising customer benefits and generating supplier revenue. But the process is the same: Research (if necessary), Develop, Industrialise the technology, Commercialise the proposition and first deploy. This process is now enshrined in a framework, developed with industry during CP5, that underpins governance and delivery management – the Product Development framework. Programme delivery brought in-house using proven NR methodology – MSP4NR. A delivery team within Group STE, scaled up and fully established in the run up to CP6, will apply MSP4NR methodology

Delivery mechanisms. Strategic research partnerships (including NR's existing partnerships) and test facilities (including the RIDCs) are being focussed into a UK Rail Research and Innovation Network (UKRRIN). UKRRIN comprises centres for digital control, rolling stock and infrastructure systems together with a pooling of test and validation facilities. Work continues in CP5 to advance our procurement/commercial capability for R,D&T - including the treatment of Intellectual Property - to enable R,D&T to become more readily scalable and integrated into the planning of O,M,R&E; and to open opportunity to suppliers and supplier consortia. Our commercial strategy includes a strong focus on the use of Innovation Partnerships

Delivering differently. To get the most value from R,D&T we have placed a heavy emphasis on delivering differently to commercialise R,D&T, creating opportunities for the market and encouraging third party investment building commitment from third parties as 'skin in the game' and providing an important strand of our 'open for business' commitment that followed the review by Professor Peter Hansford.

First in class deployments. Generate strong connection between R,D&T and planning such that tested and validated prototype systems and equipment are deployed across the railway system through a programme of early adopters that includes the Digital Railway programme to start to realise value from the new capabilities generated through R,D&T investment.

Investment, collaborative programmes and financing. Excom agreed on 12th May 2016 that R&D investment and exploitation was a necessity, not a choice – this absolutely aligns with NR's level 1 risk "failing to develop and introduce the technology Network Rail requires, resulting in an inability to meet our control period strategic business plan outcomes". Comparison with other sectors across Europe points towards R&D investment running at 2-3% of revenue for an efficient industry – investment in R,D&T needs to move towards those levels. To make this sustainable and affordable, risks and costs will be shared through collaborative partnerships. By far the biggest example of this is Shift2Rail, the first European initiative to accelerate the integration of new and advanced technologies as market driven innovative rail product solutions focused on the rail sector. Collaborative R,D&T investment opportunities will continue to be sought through partnerships with the aim of shifting the heavy reliance on grant funding towards a more balanced portfolio of grant, venture capital and loans. The RTS CDP has been substantially adopted by the European rail sector, aligning investment across Europe.

Simulation, testing and validation. RIDCs are a critical element of simulation, testing and validation capability, accelerating the adoption of the rolling stock, plant, on track machines and technology reducing performance costs. It supports the R,D&T portfolio for NR and wider industry as part of UKRRIN. In line with Rail Supply Group strategy to develop UK products and technologies that increase our ability to export them worldwide, the RIDCs will be developed as a Rail Testing Centre of Excellence with University and Manufacturing suppliers as partners. This will provide an integrated approach to product development, rigorous testing and demonstration of these products in a real representative railway environment.

Plan of activities (8-year horizon)

R,D&T proposal drives new technical capability across the CP6 plan and is the sole means to fund technical capability that is not available off-the-shelf. Our prioritised plan includes:

- Intelligent railway to improve monitoring, analysis and maintenance planning; and automation to speed up and make safer construction, renewals, maintenance and inspection.
- Safe and reliable railway to improve safety and security, reduce the scale of disruption and optimise the timetable.
- Data-enabled railway to share data and realise value from its integration
- Sustainable power to cost-effectively enable non-diesel trains and local energy supply and storage
- Future communications and train control to deliver sustainable asset costs whilst switching to digital technologies to deliver targeted improvements to capacity, train performance and safety.
- Cost-efficient network to reduce the cost of infrastructure renewal, enhancement - such as managing the infrastructure gauge - and construction.
- Continuation of the Shift2Rail programme fulfilling NR's legal commitments until 2024;
- Delivering differently to commercialise R,D&T more successfully, at pace and exploiting 'open for business' principles.
- Develop the RIDCs as a Rail Testing centre of excellence with university and manufacturing suppliers as partners under UKRRIN.

A critical part of successfully exploiting new technology-enabled solutions for a more efficient railway, and to improve targeted deployment of conventional solutions, is to create a whole system performance modelling capability. This is being developed under the capacity and timetabling strategy.

Material changes in this version

- Re-scoped to focus on asset sustainability, safety, security, performance, cost efficiency and growth.
- Simpler governance within NR to strengthen accountability; but industry advice sought through TLG.
- Programme delivery brought in-house using proven NR methodology – MSP4NR.
- Risk control improved through wide-ranging effective mitigations but remains an overall unsatisfactory position

Continuous improvement

The R,D&T strategy is reviewed and developed under the NR R,D&T Board [with advice from the industry Technical Leadership Group.] Multi-lateral relationships are being developed with other clients (eg HS2 and Highways England) to collaborate and share good practice.

The STE panel, with representatives from across the NR businesses, provides investment decision-making for NR R,D&T projects and programmes. For CP6, prioritisation of all NR R,D&T investment will sit with the STE panel with advice from industry through TLG. The NR R&T Board steers the development and application of tools and processes. Technical sponsorship comes from the Chief Engineer and Chief QSHE teams. Transitioning from solution-led to needs-led R,D&T by driving the development and use of challenge statements and technology roadmaps.

Related documents

RTS Capability Delivery Plan – January 2017

NR challenge statements

Solutions Catalogue – November 2016

NR Product Development Framework (awaiting publication) and Railway Industry Readiness Levels

Shift2Rail Multi Annual Action Plan (at www.shift2rail.org)

Industrial Strategy for Rail (Rail Supply Group, DfT, BEIS)

NR Technical Strategy – June 2013

GB Rail Technical Strategy – December 2012   47

Telecommunications - Short Form Strategy

Purpose & Scope

This strategy is led by Network Rail Telecom (NRT), part of the Group Digital Railway Directorate, working with the routes. It is focused on the remainder of CP5, CP6 and looks towards CP7 and beyond. The scope is Network Rail's telecommunications networks, systems, assets and services which include:

- GSM-R (Global System for Mobile Communications – Railway), the system which provides dedicated secure communications between train drivers and signallers
- FTN & FTNx, the legacy and next generation telecoms networks which underpin all telecommunications activities
- Over 18,000km of fibre optic cable
- Level-crossing and lineside telephony
- CCTV systems such as Driver Only Operation (DOO)
- Customer information systems including screens and clocks
- Corporate fixed and mobile telephony.
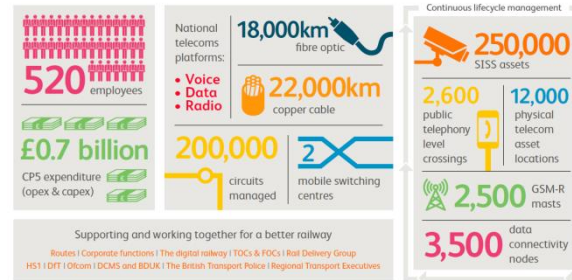
The Future – Where we want to be

Future capacity is one of the railway's main concerns and digital transformation is the answer. This strategy will deliver the telecoms infrastructure and services which enable the safe, secure and efficient operation of the railway, improving passenger experience and addressing future growth needs in a scalable, cost-effective way.

Specifically, it will deliver:
- Higher reliability of systems and assets leading to improved levels of safety and performance across the rail corridor
- Reduced train delay and consequential costs associated with telecommunications failures
- A digital railway for the routes, other central functions, TOCs, FOCs, passengers and lineside neighbours the foundation of which is a ubiquitous plug and play telecoms network based on Internet Protocol (IP) technology
- Reduced cost and complexity through the migration of services from legacy networks and the renewal of life-expired assets
- Improved customer experience through a service-based approach where we are more agile and responsive, delivering simpler, more reliable services and end-to-end structured continuous improvement, rather than assets
- Telecommunications infrastructure, networks, systems and assets which are secure both physically and logically
- External investment and effective partnerships with third parties through extending the use of telecommunications infrastructure such as our optical fibre network, generating incremental income to Network Rail
- New technology, improving the services we are able to offer to the routes and TOCs.

The Present – Where we are now

The telecommunications infrastructure within Network Rail constitutes the 4th largest telecoms network within the UK, in terms of geographical reach and breadth of assets. It underpins the safe and reliable operation of the railway and consists of multiple disparate legacy networks and technologies, built project by project, in isolation of each other. This has created a complex operational landscape where supporting these historical networks is difficult and costly as technology advances and assets become end-of-life. For context, a large number of our assets and infrastructure pre-date CP4 which, in telecoms technology terms, is a lifetime ago. We need to refresh and upgrade these to ensure we reduce complexity and cost and drive standardisation throughout the national network.

In addition, we are experiencing unprecedented demand for communications connectivity along the rail corridor with passenger numbers continuing to grow rapidly and demand from government on how our infrastructure can help deliver various policy objectives.

We continue to work with key customers (the routes) to help provide more reliability and best value improved services to their customers (the TOCs & FOCs) and ultimately, passengers.

How we will get to the future

What we will do
- Place our customers at the heart of everything we do
- Continue to focus on delivering the telecoms capability, infrastructure and services that enable a safe, reliable and efficient railway
- Develop and deploy customer centric capabilities that deliver improvements in safety, reliability and operational efficiency/cost
- Invest in the 'smart' deployment of technology that brings real benefits to our customers
- Extend the use of telecom assets to support the requirements of Network Rail's strategic business plans, the digital railway, our customers, passengers and lineside neighbours
- Continue to communicate on a regular basis with both our internal and external stakeholders
- Develop a sustainable business model that attracts inward investment and review the opportunities to generate incremental income.

How we will do it
- Fully engage with our customers and align our delivery in order to meet their ongoing service requirements
- Continue to deploy our highly available, secure and scalable, national next generation network coverage and capacity
- Consolidate our technologies into a core set of cost efficient, less complex solutions and share them in a comprehensive service catalogue
- Embed our operating model and develop our processes and systems to deliver an exceptional customer experience
- Invest in and create an integrated plan to ensure our colleagues are appropriately skilled and competent
- Invest in our end-to-end business processes and deliver lean, structured continuous improvement
- Transition from asset renewals to delivering excellent services through whole life asset management
- Identify and secure non-disruptive inward investment and funding
- Deliver our communications strategy, ensuring audiences receive key messages via appropriate channels, whilst adhering to corporate guidelines
- Ensure our optical fibre cable asset is managed in the most efficient manner.

Plan of activities (8-year horizon)

Improve safety by; designing safety in to all new products and services and continuing our strong focus on Everyone Home Safe Every Day.

Increase system and service availability by; improving the resilience of our critical operational telecoms infrastructure and systems, investing in network management and monitoring capability to further predict and prevent issues. We will look to transition over time from fixed asset lifetime renewals, to a performance and risk based renewals cycle, in order to realise maximum benefit over time for our investment.

Improve customer experience by; transitioning to a single customer portal and introducing customer relationship management tools, satisfaction measuring techniques and executing improvement plans aimed at exceeding expectations.

Mature the business by; developing and delivering improved interfaces and processes across our teams, investing and developing better governance and sponsorship and introducing lean principles and further continuous improvement activities. We will also continue our engagement with industry and where appropriate, adopt their best practices.

Transition to a next generation network by; accelerating the build of our consolidated core network nationally in preparation for the digital railway, supporting trials and business cases for improved mobile connectivity on trains. Using our assets and infrastructure to support government's digital agenda where it is safe and non-disruptive to the operational railway. We will explore how we can extend the use of telecommunications infrastructure such as our optical fibre network, generating incremental income to Network Rail.

Material changes in this version

There are no material changes to strategy from the previous iteration. Update of ERR Risk to new combined measure

Continuous improvement

NRT is constantly evolving so that we keep pace with our customers' requirements and the fast pace of technology change within the telecoms sector globally. Our 8 year plan is evolving and will continue to do so as the planning process also evolves.

Our customer account team is fully engaged with our route customers, articulating our strategy and listening to their requirements of us in order to meet their own strategy.

Related documents

- Telecoms Asset Policy v6.4, March 2017

- Network Rail Telecom strategic plan Issue 9.0, January 2018.

- NRT business strategy presentation, May 2018.

Wheeled Plant - Short Form Strategy

Purpose & Scope

Wheeled Plant represents a complex portfolio of assets that play a significant role in supporting Network Rail's (NR) commitment to our customers to deliver a rail network, that enables trains to run safely, punctually, reliably and all at a cost that represents value for money. It principally consists of Traction and Rolling Stock (T&RS), On Track Machines (OTM) and On Track Plant (OTP) assets which may be owned, leased or provided as a part of an overall bought in service to support the operation, maintenance, renewal and enhancement of the network.

Whilst responsibility for the portfolio is spread across the business, the majority of assets are managed within Route Services (RS) as part of the central support to the Routes, Infrastructure Projects (IP) and other central functions. This strategy is led centrally to provide a coordinated approach across the organisation but is firmly built upon the input of our customers, supporting supply chain and associated stakeholders.

The Future – Where we want to be

The vision for wheeled plant is to provide services that meet the needs of our customers, safely and sustainably at the lowest whole-life cost.

- **Alignment -** Clear alignment between customer needs (capability, reliability, safety, vfm) and service delivery to support the achievement of the overall business objectives.
- **Trusted -** trusted relationships with customers, suppliers and stakeholders.
- **Competitive -** The services provided must be demonstrably cost and service competitive for customers.
- **Intelligent -** intelligent asset management to improve performance, lower costs and reduce both safety and business risk.
- **Decision making -** evidence based decision making, using improved knowledge of how assets both degrade and fail in order to optimise maintenance and renewal interventions.
- **Innovation -** Identifying, developing and implementing innovation that can deliver value for money improvement through exploration of alternative approaches where we lead, inform, adopt and adapt new technology as appropriate.
- **Sustainable -** Making the right investment decisions that will leave reliable and sustainable assets as a legacy for the future
- **Performance** - aspiration for 99%+ successful service delivery for T&RS and OTM.

The Present – Where we are now

- **Legacy -** The fleets and their associated challenges (e.g. system and component obsolescence) reflect the legacy of the priorities and decisions made based on the business drivers at that time.
- **RS Journey -** Whilst RS was only formed in January 2016 many of the wheeled plant services were already well established in previous organisations with mature and proven supply chains. RS is firmly on the journey to cement trusted relationships with customers, suppliers and stakeholders.
- **Competitive -** RS has undertaken benchmarking (comparison against equivalent services in the market place) and/or market testing (re-tendering so that value for money can be tested in the market) of many of the services provided.
- **Varying maturity -** Alignment between customer needs and service delivery, intelligent asset management, innovation and decision making varies across the fleets.
- **Ageing fleets -** There are a number of ageing fleets (e.g. infrastructure monitoring fleet average of 48 years old) where components and systems become increasingly difficult to support leading to decreased reliability and increased cost.
- **Service Delivery -** High Output services have struggled to consistently achieve the required levels of service delivery.
- **Operating Environment** - Our customer's operating environment is becoming increasingly challenging which in turn impacts on wheel plant services. Factors such as reducing access, increasing traffic and changing priorities, make robust future demand forecasting difficult, which is particularly crucial given the typical asset life of wheel plant.
- **Performance** - We have worked with customers to build our catalogue of services which include agreed performance metrics which are then monitored. Performance across T&RS and OTM assets typically ranges between 94% and 98%. Future targets for each service are contained within the SCO (Supply Chain Operations) Strategic Asset Management Plan. OTP are not RS assets and are monitored via the Rail PPS system with performance currently at 98%. Future targets need to be agreed for OTP assets.

How we will get to the future

The strategy requires pan-Network Rail and industry/supply chain collaboration and includes:

- Asset condition information capture and condition monitoring enabling effective decisions about maintenance, enhancement, life extension and replacement.
- Adopting asset management principles allows us to demonstrate that we are delivering services optimised to whole life cost.
- An increasingly robust understanding of the behaviour and the most appropriate actions to mitigate asset degradation. This understanding must be supported by reliable information, effective processes and delivered by competent people.
- Embed a consistent culture and process of designing to optimise safety and reliability as this offers the optimum opportunity to make a step change in service delivery.
- Focus maintenance, renewal and enhancement activities on delivering sustainable outputs valued by customers at the lowest whole-life and whole system costs as opposed to prioritising work predominantly according to condition or reliability alone.
- Continued benchmarking and market testing to establish best practice and adopt relevant findings.
- Secure the required level of funding through the Periodic Review for CP6 to enable the investment required to the fleet assets.
- Better use of whole-life management and make versus buy tools and techniques to seek benefit/cost optimisation.
- Operating in open and transparent manner, where our customers are our priority will lead to RS being considered a trusted supplier. We have made good progress in this area but there is much more for us to do to become truly customer focused for all services and at all levels
- Develop and deliver a culture of Total Plant Maintenance to enable maximum effectiveness of equipment.

Plan of activities (8-year horizon)

		CP5	CP6	Beyond
Asset Management	Instil ISO55001 principles to drive an inclusive Asset Management approach.			
Service Catalogue	Agreed service scope & indicators with customers. Improved transparency of cost drivers enabling the right overall the right business decisions.			
Overhaul	The rebuild or replacement of life expired major components, systems or subsystems to restore the asset to a defined standard.			
Renewal	Replacement of the assets as a whole that are approaching or have gone beyond the end of their effective life and overhaul is not economically or technically viable.			
New / Enhancement	Enhance to improve capacity or capability of an asset where a clear case exists. Introduction of new assets driven by changing business needs or new technology.			
Customer centric culture	Gain a deeper understanding of our customers' businesses and develop a truly collaborative working relationship through key account management.			
Benchmarking	Continued benchmarking and market testing to establish best practice and adopt relevant findings.			
FAMS	Increased focus and consistent application of the Fleet Asset Management System (FAMS).			
Planning	Improved integration of planning to align the future demand for the work with resources. A LEAN approach to reduce waste (e.g. shortfalls)			

Material changes in this version

- Update of the Local Dependency Map following completion of the dependency mapping across all of the Short Form Strategies.

- Incorporation of comments following review by the Asset Management EXCOM.

- Plan of activities revised to show timelines.

Continuous improvement

Through furthering a better every day culture we will make incremental gains

Structured continuous fleet improvement plans (e.g. High Output service delivery improvement plan).

Transformation programme will assess areas for working smarter.

Related documents

- STE - Plant and T&RS Asset Policy.

- Routes & Central Strategic plans

- DU Activity Based Planning Tool

- Route Services Scorecard

- SCO Strategic Asset Management Plan