



# GB Rail Network Operating Strategy

**2020-2030**

*This is the First Annual Edition of a Ten-Year GB Rail Strategy  
to systematically modernise the Operation of the Railway*

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*This 10-year Strategy has begun its life within Network Rail.*

*The ambition is, through collaboration with Train Operators to extend the scope to be a GB rail-industry-wide strategy, from Year 2 (2021-2022)*

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## Introduction

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This First Annual Edition of a Ten-Year GB Rail Network Operating Strategy will systematically modernise the way we deliver Operations across the railway. Our Vision is to rejuvenate and invigorate the operation of the railway for the benefit of all our customers, and to take pride in the operations profession.

Operating the railway is the core activity in delivering safe punctual, reliable train services to customers - and is central to the mission of Putting Passengers First. Infrastructure, systems, and engineering asset management provide the capability which operators deploy and exploit to deliver this service to customers.

Yet in 2020 the operating challenges have never been greater after several years of declining performance, an increasingly complex, crowded network and with customer expectations ever-increasing. In recent months, the railway as with wider society, has had to step up to the unprecedented challenge of the COVID-19 epidemic but also plan for the economic realities beyond. The Strategy helps enable future changes such as the Williams Review and other potential policy shifts.

Railway operations is a profession focused on service provision to customers and depends on a diverse range of roles working together, and founded on the dedication, skills, and expertise of people. Workforce safety, high-performing assets and the delivery of major infrastructure projects are all essential factors, but they are not sufficient without a well-equipped and highly skilled operating capability.

Operations expertise and oversight of the whole system needs to be developed, cultivated, and valued in new ways, and through re-discovery and sharing of knowledge that helps build future generations' expertise to ensure the railway works effectively as a system. Operational competence is absolutely vital, because the industry needs people to be capable of making efficient real time decisions, often under time pressures and motivating a team of people to deliver the best possible outcomes. New techniques and approaches must be balanced with hard-won sound experience.

This First Edition of the Network Operating Strategy has specific, clear and concise actions set out in 10 sections to re-focus on the core operating activities, to improve our operating capability, tackle the issues of poor performance and provide better service to our customers. This will take time. Time to adjust some older ways of working time to fulfil the potential of a devolved, customer-facing structure and time to get the balance between innovative change and consistency pitched correctly.

The scope of the Strategy is intended to expand to the whole of the GB Rail network, not just the elements within Network Rail's responsibility which are the primary focus of this first edition.

*“I want a railway that alongside world-class engineering, alongside world-class project delivery capability, we have world-class operations. Operators with top-notch competence and experience, excellent leadership skills and a system-overview that enables them to work effectively together deliver the best outcome for passengers. Supported by analysis, more decision tools that are ubiquitous on a congested network as we enter the 2020s.”*

*Andrew Haines.*

## **Operations in a context of change, challenge, and opportunity**

The importance of rail to the economic and social wellbeing of the country has never been greater than today. Delivering customer expectations, both passengers and freight, requires an operations function that ensures the network delivers every day. Operators have the crucial task of ensuring that trains not only operate safely and efficiently but also must look ahead to identify the future challenges to address demand, capacity and reliability, against the backdrop of a changing industry and the opportunities offered through technological change.

Today there are more rail journeys on the GB rail network than ever before. Trains travel further on more congested routes. The resource plans to deliver these services are more complex, meaning that the timetable is less resilient to disruption and requires much greater levels of intervention than previously. Alongside this there is the imperative to deliver high quality information in real time is vitally important as passengers become less tolerant of industry failures.

The operations function will need to be able to demonstrate the confidence and agility to embrace change. At the present time many of these are unknown but the long-term impact of the Williams Review, Brexit, and the current COVID-19 virus, mean that operators must be able to respond and provide industry leadership.

## **Vision for this Network Operating Strategy**

This Network Operating Strategy sets out to rejuvenate and re-invigorate good operational practice and to develop an operational function confident in its own abilities and capable of offering the industry leadership for the years ahead. Its ambition addresses both the historical and immediate problems and has a vision to anticipate and address future challenges.

To do that, operations needs to be capable of working cross-functionally and right across the industry and have staff capable of using sound judgements based on their knowledge, skills and experience to do the right thing for passengers and freight customers. The vision of this strategy is:

***To develop the professional operations capabilities and expert operational management as one of the core activities within the Rail Industry and build the capability to lead the industry in surpassing stakeholder and customer needs.***

This First Edition of the Network Operating Strategy is focused on Network Rail and the intention is that future versions will be incorporate train and freight operations covering critical areas such as train crew and the operational design of rolling stock. The process for this expansion will be agreed with the industry during 2020-21 to incorporate into the next edition.

The Strategy is owned and driven forward by Oliver Bratton, Director Network Strategy and Operations with support from Andy Jones, Director, Operational Programme Delivery within the Network Services Directorate of Network Rail.

## Structure of this document

The strategy horizon is the next 10 years (CP 6 and 7) and will evolve through continuous improvement rather than be focused on short term initiatives. It aims to be to be clear about the **why** as well as the **what** to ensure that the direction of travel is understood across the industry to achieve twin aims.

- Driving continuous improvement in the way operational delivery is executed today and in the near future (“**doing things better**”); and
- Developing and deploying the future of operational delivery and network management (“**doing better things**”).

The strategy comprises an inter-dependent suite of topic areas, all of which will require substantial development to work in an optimal way to provide the momentum for change. These are designed to be capable of easily being separated out to enable managers to focus in key areas. There are 10 topic areas each introduced by a headline **Goal** in boxed text followed by a series of concise **Key Requirements** which set out actions to attain the goal and a succinct summary of the problem or issue to be faced - the “**Why?**”. Each Key Requirement is supported by a summary of key deployment areas that must be addressed to deliver Key Requirement and finally **Further Guidance** on where more information can be found, in addition to the NOS Research conducted in 2019-2020. The 10 topic areas follow this introduction and comprise:

1. People & Organisation
2. Competency, Training & Development
3. Policies and Procedures
4. Service Planning
5. Command and Control
6. Performance Management
7. Stations
8. Infrastructure Development and Technology Change
9. Customer Information
10. Operational Assurance

### **Driving implementation as a Supportive, Integrated Programme**

Many of these actions are interrelated: changes to policies, changes to competence and selection of new control systems work together in an integrated way.

Concurrently with Strategy launch a systematic programme management and verification process will be implemented to support, encourage, and track progress of each of the detailed actions. The approach will:

- be clear, recognised and adopted at National, Regional and Route level
- be agile and adaptable to reflect changing industry structures
- Incorporate train and freight operations as the scope of the strategy expands
- evaluate progress and make “adjustment at the tiller” as the plan proceeds
- undertake verification checks and reporting of progress against the NOS actions
- facilitate, encourage, help, connecting pockets of good practice and problem solving
- provide assurance to the industry leadership.



## 1. People & Organisation

### People & Organisation:

*People, their professional development, and the development of the organisational support arrangements around them, are core elements of the Strategy. The aim is to rejuvenate the operations workforce to be fully productive, well-motivated, rewarded and incentivised to take charge of their own professional development and deliver consistently excellent service to rail customers.*

*Organisational design within Network Rail is not heavily templated, to allow Regions and Routes the flexibility to meet their local needs, particularly in relation to TOCs/FOCs. However, there is a requirement to create within Operations a reasonably consistent structure and job titles which are focused on creating workable roles, cover key safety requirements, are capable of meeting current and future business needs and capable of delivering this Network Operating Strategy. There are strong linkages with Section 2 Key Requirements.*

### Key Requirement 1.1 Operations Training and Development

Network Rail operations staff will undertake training and development that provides them with knowledge of all aspects of operations and practical experience to help understand the railway as a system.

#### Why?

Delivery of a high performing railway requires well trained and experienced operating professionals who have a broad understanding of how the railway operates as a system, and the technologies and processes used. The current structure of GB Rail has led to a narrowing of the skillset across many operating staff. The lack of career opportunities has led many operations staff to leave the function (or the industry) so there is a clear need to develop better role satisfaction and career paths.

### Key deployment areas

- Provide clear pathways for operations staff to develop competence within their roles, and support / encourage staff to progress through these pathways
- Provide opportunities for operations staff to develop their operational expertise beyond their current role to support succession planning
- Develop coaching and mentoring arrangements which can provide 'in life' support, advice, and guidance to developing operations professionals
- Provide opportunities for operations staff to gain experience across their current business and across the industry, learning about the wider engineering and business processes
- Facilitate cross-pollination of knowledge and joint training across the Infrastructure Manager, Train Operator and Regulatory / Standards roles
- Utilise and encourage the IRO and other Professional Institutions to support the development of operations staff in the wider industry requirements
- Evaluate the adoption of appropriate qualifications to support long term career development.

## Key Requirement 1.2 Signaller and Controller Role

### Modernisation

**Develop new role profiles for signallers and controllers to create a modern grade structure, capable of dealing with the future Digital Railway and existing technologies.**

#### Why?

The development of new technology, such as Traffic Management Systems (TMS), is blurring the boundaries between signallers and controllers as to who makes key decisions. To ensure the capabilities of technology are fully exploited and decisions made quickly to run the service and recover from delay, clarity on the roles of key staff is required. This is an area where GB Rail lags other modern railways. Any solution must also be capable of dealing with existing legacy technologies, take account of the emerging Rail Technical Strategy and work effectively across the industry. There are important links to Key requirements in Section 6.

### Key deployment areas

- Create a national project team
- Identify lead Route pilots with Operations Manager involvement
- Evaluate the combination of signaller and controller roles into traffic manager roles
- Involve Trade Unions from the start of the programme.



## Key Requirement 1.3 Create a Better Operations Structure

Create organisations that will deliver this Strategy, empower managers and supervisors, ensure key roles have the appropriate support and give them the authority to make risk-based judgements with decisions made at the most appropriate levels without a constant need to seek senior approval.

### Why?

The delivery of the NOS requires an operations team with both the capability and structure to support implementation. Attempting implementation without reviewing structures and capability will likely lead to a significant shortfall. Managers and supervisors often do not have the authority or experience to make quick, safe decisions and authority gets pushed up the hierarchical chain. This slows down decision making and disempowers and de-skills key frontline roles. Future structures must empower managers alongside the training requirements identified in other sections of this strategy. Many roles have insufficient time available to address their core function of ensuring the railway is safely and punctually run and focusing on key activities such as signaller competence assessment as highlighted by a recent report by RAIB. Too much of frontline managers' time is taken up managing routine issues such as medicals or administration, making them unsustainable, unattractive roles. Jobs should have an appropriate span of control with support roles for areas such as recruitment and staff briefing to allow managers to focus their time on their people and service delivery issues. The structure must be sufficiently flexible to enable the response to all foreseeable contingencies to enable the continued operation of the network.

### Key deployment areas

Review the decision-making requirements at each level of new and existing operations team structures

- Review decision making levels within job descriptions
- Deliver training against the needs identified
- Identify likely workload and competence requirements for key supervisory and managers
- Review the operations structure against key requirements such as assurance and delivering operations inputs to projects
- Carry out a review of support requirements to critical management posts
- Identify support roles required and review the most efficient way to provide – this may be shared roles within Routes to deliver the most efficient solution
- Work with the LOMs/ECROMs to utilise the additional capacity effectively with a clear focus on developing leadership skills which does not get dragged back into bureaucracy.

## **Key Requirement 1.4 Implement a National Network Services Directorate**

**Create the capability within the Network Services Directorate to deliver clear industry operational leadership including the delivery of this Strategy.**

### **Why?**

In recent years, the operations capability within Network Rail HQ has been limited. The creation of Network Services and the key new roles within it offer an opportunity to provide GB Rail leadership in the development of industry operational capability. This recognises the importance of devolved operations by providing a clear framework within which local organisations work and being capable of driving a focus on a high performing network.

### **Key deployment areas**

- Put in place the revised structure and appoint high quality leaders into the key roles
- Work with the Routes and TOCs/FOCs to define the role of Network Services
- Set out a clear specification for the roles and responsibilities of Network Services.

## **Key Requirement 1.5 Modern employee relations training**

**Set up a structured training programme for operations managers in engaging with Trade Unions and elected staff representatives.**

### **Why?**

Effective engagement with Trade Unions and staff representatives is an essential core skill for many managers in our industry. However, in many cases managers have limited training and experience, particularly when compared to the staff representatives. A more confident and skilled management team will benefit the company, the workforce, and unions.

### **Key deployment areas**

- Put in place employee relations training opportunities
- Identify priority managers at Route level
- Ensure competent employee relations support is available to managers.

## Key Requirement 1.6 Modernise Traction Power Control

**Modernise Traction Power Control arrangements, ensuring the highest standards of safety and performance delivered by a professional, well managed workforce.**

### Why?

Years of neglect and uncertainty mean mid-20<sup>th</sup> Century practices and structures persist largely unchanged. These do not exploit the potential of modern digital systems, are not integrated with wider network control, and are inconsistent with a 21<sup>st</sup> century network. There is a critical talent shortage, inadequate contingency arrangements, and an ageing demographic, in a function which has major safety and operability responsibilities. Training facilities are insufficient. A new approach is needed which is safe, more productive, operationally smart, robust and has sustainable succession and management arrangements.

### Key deployment areas

In 2020-21 undertake a National project to systematically research, evaluate and report on the opportunities to modernise the Traction Power Control function with objective to develop a recommended option with outline business case, for subsequent implementation.

- Develop an optimal 'clean-sheet' model of how the function could be best designed and use this to compare current Network Rail practices to expose the key issues for change
- Research how the issues are best tackled, including benchmarking of GB practice against 21<sup>st</sup> Century best practices (e.g. Metros, HS1, overseas railways and National Grid)
- Consider how productivity, efficiency, effectiveness can be delivered considering both the inherited status-quo and the opportunities offered in future enhancements
- Consider best option for training, assessment, and development on ECR systems
- Determine and evaluate potential options and select a single option for implementation.
- Design and develop the single option solution and Business Case for investment authority.



## 2. Competency, Training & Development

### Competency, Training & Development:

*To deliver a high-performing railway a successful operations function relies on the right people in the right roles with the right training and competence management processes. This delivers higher standards of personal and professional development, better performance, and greater retention of operational talent. There are strong linkages with Section 1 Key Requirements.*

### Key Requirement 2.1 Operations Recruitment, Selection and Training

**Provide entry level recruitment, selection and training programmes to encourage the right people to join operations and to secure for them rewarding, productive careers with maximised retention recognising the breadth of skills operations will require in the future.**

#### Why?

Operations staff recruitment, selection and training processes are currently disjointed. Graduate recruitment has insufficient focus on recruiting future operations managers to a 24/7 industry. It struggles to retain graduates in operating roles, partly because of limited operational career opportunities for the ambitious and the perceived attraction of roles in non-customer delivery areas. Signaller and CSA recruitment are currently managed as volume processes not linked to training. There are concerns that the robustness of the selection process and the psychometrics used to assess suitability could be more rigorously tuned to the realities of the role they fulfil. There is minimal input from local operating managers until the interview stage. Consequently, there is high wastage at selection, and subsequent high churn which drive up cost.

There is an imperative to have properly resourced recruitment processes addressing the different routes into operations; including school leavers, graduates, Network Rail employees, wider rail industry and externals, utilising apprenticeship programmes and other schemes to improve attraction. The selection process must recognise that operations roles are safety critical roles with real-time complex decision-taking attributes so that the role profile and the capabilities drive the selection process.

### Key deployment areas

- Implement workstreams tailored to specific operations requirements which enhance attraction, recruitment, and selection, with a clear emphasis on choosing people with the right attributes to remain and develop lasting careers in the operation function
- Retain and develop high-potential operations talent within the operations function through deployment of an Operations talent strategy, an Operations talent programme and by recognising and promoting the operational leadership required at the most senior levels
- Implement a revised 2020 and 2021 Graduate Scheme and beyond to provide structured recruitment and learning across all operating disciplines in the industry – including TOC placement
- Develop and deploy early engagement programmes to attract talent at junior level (school leavers and targeting students as early as GCSE choices)
- Fully review the current entry level training and continuing L&D programmes to ensure that as well as being technically accurate they (1) have creative and innovative content and delivery, (2) balance technical and non-technical skills development, (3) are inclusive, and (4) provide a broad understanding across operations disciplines.

## Key Requirement 2.2 Operational Competence Refresher and Rehearsal

**Ensure that operational competence is refreshed and rehearsed at intervals and using approaches which are appropriate to the risks**

### Why?

Refreshing of less-often practiced skills is a key part of competence retention. In recent years delivery of such learning has become diffused by using allocated time for other activities of doubtful value and productivity. There is a need to restore and re-tune refresher training and to enhance the cadre of skilled operationally competent trainers who can devise and deliver effective, fully productive programmes tailored to the Local Operations Manager's needs.

### Key deployment areas

- Mandate and deploy refresher training/development programmes across all frontline operational roles, provide and deliver opportunities, processes, and facilities (premises, equipment, materials) to undertake the training within each Region and Route
- Select and train those involved in delivering initial and refresher training/development, so they are credible operations experts who also have appropriate non-technical skills
- Design and maintain the organisational arrangements and reward structures to encourage the right sort of people to be interested in an operational training career.

## Key Requirement 2.3 Acquiring, Retaining and Developing Railway System knowledge

Network Rail shall retain generational knowledge to improve competence, safety, and operational delivery.

### Why?

The pace and scale of change in the rail industry over the last 25 years has been considerable. Vertical separation of infrastructure and train operations has caused loss of cross industry operational knowledge. There are risks of generational experience being lost before it can be absorbed and applied by recent recruits. People in new roles need to benefit from real life understanding to apply theoretical knowledge and convert it to unconscious skill. It is vital that knowledge retention is properly organised through suitable mentors and that the process is integrated with competence assessment and development. Actions here deliver two benefits: exploiting expertise of how Network Rail operates (important given high churn of frontline managers) and second, retaining knowledge about how the railway system operates as a whole.

### Key deployment areas

- Facilitate the transfer of generational knowledge from experienced and appropriately selected SMEs to developing staff, with learning alongside experienced people
- Ensure that robust Operations mentoring process are in place so that less experienced operations staff are matched with appropriate mentors within the business or industry, who can support their learning/ development and pass on generational knowledge
- Implement learning journeys/ competency frameworks design structured around on the job learning to facilitate knowledge transfer between peers and encourage personal ownership of learning and competence
- Build wider railway systems knowledge into our frontline operational programmes and operations talent strategy.

## Key Requirement 2.4 Enhance Operator Competence

### Management and Assurance

Network Rail shall understand and verify the competence of its operations staff and use the results to target where learning and support are required.

#### Why?

People need to be encouraged and enabled to take personal charge of their own professional development and to attain formal qualifications by their personal actions rather than being “fed” their training and development by their employer. There is a need to create a culture where people have an active interest in their own Competence Assessment and generate their own evidence of competence. Current Signaller CMS entails a bureaucratic approach with over-reliance on simulations rather than aiming to observe people operating under pressure, discuss scenarios and use this high-quality evidence for competence assessment.

#### Key deployment areas

- Understand both the technical and non-technical competence of operations staff and ensuring an appropriate balance
- Competency Management System – introduce the selected system to assist managers to deliver and record competence assessment decisions
- Re-focus all Competency assessment activities to be intrinsically part of Local Managers’ core role and are not a separate activity; with more using direct observation and diverse evidence. giving realistic, meaningful assessments and providing triggers for learning and development
- Encourage those being assessed to own the responsibility for their evidence portfolios, personal and professional development rather than waiting to be “fed” such opportunities
- Ensure that the competence management system is accessible to employees to encourage them to take ownership of their own development
- Review and benchmark the current process to ensure that adequate checks and balances are in place that verify the robustness and quality of the competence assessment arrangements
- Deliver upskilling on how to conduct effective assessments and development and ensure that this is embedded into core, mandated learning as part of assessor’s learning journey
- Research and recommend options for the establishment of a process of continual professional development in operations including consideration of options for licensing systems.



## 3. Policies and Procedures

### Policies and Procedures:

*It is important within devolved structures that there is a procedural framework setting out how the network should be operated and to provide clear guidance to local operators in how they organise their teams and carry out both safety critical and other tasks.*

### Key Requirement 3.1 HQ Operations Team Capability

**Within Network Services Directorate, enhance the role, scope, resource, and expertise of the HQ Operations Team Capability.**

#### Why?

Previous organisational changes weakened the HQ operations team and made it part of the engineering function. This reduced its capability to direct policy and to offer industry leadership. This has manifested itself in several areas such as new technology introduction with insufficient regard to the practical impact on service delivery, frontline operating staff or in understanding how to address industry-wide issues.

#### Key deployment areas

- Provide the capability to lead and develop 'national' (Network Rail and industry) operating policies, standards and procedures and give expert guidance in the rapid development of these at Route level
- Provide the capability to specify arrangements for assurance and audit and to take a leading part in the verification of evidence of compliance with policy and standards
- Provide the leading role for wider engagement in cross-industry performance systems, safety standards and policy development- for example with RSSB, ORR, RDG etc
- Provide the resource and expertise to lead for Operations in the development of innovative and new technology solutions
- Own and oversee the development of this Strategy.



## Key Requirement 3.2 Operating Process review and reinvigoration

**Undertake a comprehensive modernisation of the development of policy, standards, and procedures for operation of the network.**

### Why?

Many primary procedures are managed in different places dependent on whether they are industry, Network Rail or TOC specific documents. In many cases there is no longer clear guidance on key operational matters, or the existing content is obsolete. Two examples are: practices in signaller competence assessment vary between efficient methods integrated into the LOM day job, to bureaucratic stilted approaches and there are no longer any guidelines on how to implement train regulation policies to conform to the Railway Operational Code. Disciplined and consistent application of key processes and procedures impact on day-to-day outputs, are critical to service delivery, will reduce operating costs and critically will ensure renewed focus on operational safety management activities.

### Key deployment areas

- Undertake a review of existing gaps and misalignments in policies, standards and procedures (including the link to engineering standards when these impact on operational outcomes) to ensure operations staff receive consistency of process in core operational areas whilst enabling local flexibility in how to deliver
- Develop, compile, and maintain a consolidated National Operating Manual of policies, standards, procedures, and protocols in a way that responds promptly to business change needs while securing the integrity, safety, and consistency of content
- Create a capability to learn from the analysis of operational experience – including good practices at Regional and Route level – learning review of incidents and major emergencies, learning from other railways and metros and from other relevant industries, facilitated through effective intelligence networks and participation in initiatives designed to share experience and best practices.



## 4. Service Planning

### Service Planning:

*The quality and deliverability of the train plan is a critical foundation in delivering high performance. Recent years have seen huge growth in the number of services, an increase in the distances run, increased diagram complexity and greater resource demands. Performance has suffered as a result.*

### Key Requirement 4.1 Timetable Planning and Programme Management

Ensure that the operational deliverability of timetables is assessed with Network Rail, TOCs/FOCs and specifiers working effectively to understand the implications of timetable changes and the operational impact on timetables of infrastructure upgrades.

#### Why?

Several recent high-profile timetable changes have caused major problems including performance degradation, poor operational readiness, overuse of capacity and very tight resource plans as diagram complexity removes resilience from the timetable.

#### Key deployment areas

- Ensure that Authorities sponsoring, or incentivising timetable enhancements are clear at the business case stage on the available network capacity to support such changes
- Ensure planning rules properly reflect actual operations (e.g. dwell time deliverability)
- Develop and deploy a plan for implementing performance and capacity simulation and modelling systems to support timetable design and resource planning
- Implement effective sign-off processes for timetable changes that ensures operational deliverability has been fully addressed and operational readiness reviews are held
- Implement robust interface arrangements between local operations teams and the planners within System Operator and the TOCs
- Review and validate resource plans with TOCs (e.g. ECS, depot despatch/disposal)
- Ensure that there is correct alignment between the scope, timing and delivery of infrastructure upgrades and the timetable delivery to TOCs and their customers.

## **Key Requirement 4.2 Integration of Planning and Operational delivery**

Train planning teams must ensure there are effective feedback loops between local operations teams and planners to ensure they can support timetable development and highlight and fix emerging issues in the plan. This reflects that the timetable cannot currently incorporate enough detail to say how the system should be operated.

### **Why?**

The centralisation of planning has created a significant gap between frontline operators and the planners. LOMs, Controllers and Signallers report that they get little response to suggestions on plan amendments so in many cases they have stopped reporting problems. When teams were more local it was easier to get planners to visit Controls and Signalling Centres (although it was still sporadic). Better coordination is required to revitalise this important dialogue.

### **Key deployment areas**

- Ensure each key signalling centre/control has a clearly defined process to follow to appropriate contacts in the System Operator team
- Put in place a formal feedback process which records, queries, and logs the responses
- Involve TOC/FOC train planning teams in the system.

## **Key Requirement 4.3 Timetable Technical Strategy**

**Implement the Industry Timetable Technical Strategy to support the production of robust, deliverable timetables.**

### **Why**

The Glaister report requires a strategy to overhaul the approach to timetable and resource planning. This strategy is in the final stages of development and will be published soon as a ten-year strategy to set out industry requirements designed to produce more robust timetables, supported by better systems, processes and data. This requires changes from the way timetables are specified by DfT/TfL/other funders through to the amended planning processes.

### **Key deployment areas**

- Publication of the new strategy
- Development of the rollout plan during 2020/21
- Delivery of the actions in that rollout plan.



## 5. Command and control

### Command and Control:

*The current structures are not delivering a measurable improvement in incident management as attested by rising DPI and reactionary delays. The current industry structures rely on consensus rather than any defined command structure that directs what will happen during service disruption. A more flexible approach to setting up control structures with TOCs/FOCs which shortens decision making time is needed to enable this. To do so also requires focus on the competence and quality of staff both in controls and on the ground.*

### Key Requirement 5.1 Review and develop Command and Control Structures

Ensure that the Command and Control structures and authorities are focused on delivering the best customer service outcomes with absolute clarity on where authority sits. Roles of Network Rail and TOC controllers must be optimised to deliver effective decision -making. The structure should be flexible enough to enable satellite operations at key nodal points if required and provide clarity on who holds real time accountability for service delivery. When decisions are made, it is imperative that we can capture them completely in the systems.

#### Why?

The increase in service levels alongside greater service complexity and an ever-tighter resource plan means that the need for service interventions have increased greatly. Industry feedback from both Network Rail and freight and train operators is that the current structures fail to provide a clear command hierarchy, particularly during major service disruption. Despite the advent of ROCs, the increase in reactionary delay and delay per incident demonstrates the need to improve incident management to deliver quality of service demanded by passengers and freight customers. It is clear there is no one solution to this problem. The future structure of control must consider the review of controller/signaller roles (see KR 1.2) and be capable of supporting the actions focussed on customer information in section 9 of this Strategy.

### Key deployment areas

- Network Rail and the Network Performance Board should set up a control structure strategy review to agree the industry framework for control structures and decision hierarchies and report within 12 months
- Undertake a joint control structure review with local TOCs/FOCs. This should factor in the type of services: commuter/long distance, service complexity, signalling type and capability
- Identify key constraints on effective decision making
- Set out clearly the real-time decision-making hierarchy, processes for variance and how to capture the outcome of decision - making
- Introduce better defined contingency arrangements in line with RSSB research (T1154) and improve control discipline in application
- Build outcomes of the control structure strategy review into the Digital Railway programme so that DR technology supports the outcomes.

## Key Requirement 5.2 Training and Development in Command and Control

**Network Rail shall provide training and development to support clear command and control for operations at all levels.**

### Why?

Good command and control structures require very competent people who can take quality decisions in high pressure situations. This means we must have good quality training in place and have the ability to practice incident management frequently. The advent of new technologies offers new opportunities for rehearsing incident management on a more frequent and targeted basis than traditionally has been possible.

### Key deployment areas

- Provide clear pathways for operations staff to develop competence within incident management roles
- Provide experiential incident management training recognising that the opportunities to practice incident management activities can be limited and are likely to become more limited as we build a more reliable and safer network.

## Key Requirement 5.3 National Operations Centre

**Clearly define the role of the National Operations Centre (NOC) and the circumstances in which it will provide strategic cross Route direction, ensuring that all Route DCMs understand when the NOC will be empowered to give direction.**

### Why?

There is currently a lack of clarity on the role of the NOC and its ability to give clear direction during cross Route incidents. In some cases, the need for this role was questioned. On occasions Route controls fail to participate in national conferences when required due to workload issues. Therefore, there needs to be clarity about the role that the NOC fulfils and that Route controls should adhere to instructions when required.

### Key deployment areas

- Review the role and responsibilities of the NOC benchmarking its against similar functions in similar railways and non-railway networks
- Carry out a role assessment for the staff within the NOC and match against those identified within the review
- Ensure any lessons from the Coronavirus response are built into the decision processes
- Identify whether the training within KR5.2 will address all the needs.



## 6. Performance Management

### Performance Management:

*Train service performance delivered to customers has fallen significantly and is now well below the levels of 10 years ago. The recent creation of the Network Performance Board reflects the change in industry focus necessary to match customer expectations and reverse the recent trends. One key factor has been the increase in train service complexity in recent years and the impact of timetable changes.*

### **Key Requirement 6.1 Performance Maturity Model**

**Implement the RM3P performance maturity model across all Routes and Regions alongside operators.**

#### **Why?**

The RM3P model offers an effective way of setting out how performance is managed effectively and is owned by the Network Performance Board. The current assessment is that GB Rail falls well short of where it should be, and that performance has not had the correct level of focus in recent years. Regions/Routes should set themselves challenging but realistic targets for improvement and support managers in delivering them. A key focus for the operating function will be to share good practice across GB Rail.

#### **Key deployment areas**

- Set out a clear programme for implementing the RM3P model
- Train key staff in the requirements of the model and ensure familiarity with it
- Once initial assessment is complete set out an improvement programme based on pragmatic, deliverable solutions.

## **Key Requirement 6.2 Measuring operational delivery against system capability**

**Implement new measures on the way current operational practices including train driving and station dwell management deliver against the designed network capability to understand the impact on performance as a result.**

### **Why?**

Incremental change in operating practices in recent years is eroding network capability and resilience. For example, train braking capability alongside signalling headways are designed to allow drivers to drive selectively dependent on rolling stock. However, this is often not reflected in the way drivers are trained today and this is having a major consequence on how capacity is utilised in practice. This in turn impacts on train performance. Changes in some train door operation and despatch processes have also increased dwell time and cause passenger frustration, for no appreciable safety benefit, and require review to rebalance safety and prompt station work objectives. The industry needs to review current practices, without compromising safety, to enable operating staff to use their knowledge and experience to better optimise capacity and performance.

### **Key deployment areas**

- Introduce a new series of measures through the Service Utilisation Definition programme to understand the impact of operating practices
- Involve ASLEF and driver representatives alongside train manufacturers and signalling engineers
- Involve RMT and Conductor representatives in discussions on station stop processes including door cycles and the full dwell processes
- Define pilot areas to test out revised practices and implement the agreed changes nationally.



## **Key Requirement 6.3 Enable Local managers to deliver better performance**

Provide frontline managers with ready access to performance data and information tailored to their specific area of responsibilities, to support and enable them to focus on the right corrective actions to underpin improvement plans and drive a culture of intolerance to performance failure and support clear accountability.

### Why?

Driving the necessary levels of performance will require a strong performance-based culture, underpinned by easily accessible performance data and root cause information that local managers can utilise to drive improvement plans. Joint working with train and station operators is critical through local delivery groups.

### Key deployment areas

- Review current performance data availability to frontline managers
- Review data analysis capability across Network Rail – clearly differentiate between industry reporting requirements and analytical support to performance planning
- Review current performance culture across Network Rail operations teams and interface with TOCs/FOCs
- Develop national approach in line with RM3P for local rollout
- Establish reasonable, challenging targets for performance improvement that motivate local managers and their teams
- Provide web-based toolkits to help local managers drill down into performance data to enable tailored training interventions to individual signallers and controllers
- Increased focus on sub-threshold, unexplained and minor delays, particularly at stations which can erode performance on a daily basis.



*This is initially targeting Network Rail Managed Stations but is about influencing industry thinking so the actions could be rolled out to all large and medium – sized stations appropriate to scale, complexity and customer requirements*

## 7. Stations

### Stations:

*Network Rail's 20 Managed Stations provide a starting, finishing, or connectional facility for many customers. Train service delivery at these Stations is less well understood and addressed, leading to inconsistent and sometimes passive approaches to performance, despatch, service disruption and customer information. Managed Stations teams will be focused on operational delivery and exceeding passenger expectations.*

### **Key Requirement 7.1 Re-focus Station Teams on Performance Improvement and Customer Excellence**

**Improve the passenger delivery at Managed Stations by a greater focus on key operating priorities including train punctuality, incident response and customer information.**

#### **Why?**

All stations can be a source of small delays through platform management, train operator practices and dispatch. The large and complex stations (many of which are Managed Stations) can often become the central focus of railway operations when recovering from serious incidents. In these instances, the ability to work with train operators to understand resource restraints, the flow of information to controls and the importance of helping passengers complete their journeys frequently create competing priorities. Limitations in operational systems often make it difficult to provide good passenger information.

There has been a tendency in recent years for station staff and other operating staff to follow diverse career paths. This is an arbitrary distinction given that a good operator understands stations, and a good station team understands the wider aspects of operations. Only this breadth of knowledge will deliver high performing stations that give the best possible passenger experience in all situations.

### Key deployment areas

Develop a national framework to improve operational focus customised to, and building on good practice from each station:

- Build a 'One Station Team' approach between Network Rail and TOCs throughout the station's organisation, ensuring that putting passengers first is at the heart of station operations
- Ensure station organisational structures and role definitions align with key station priorities and the tasks that staff should actually perform
- Deliver opportunities for station operations staff to develop their operational expertise to support career development, retention, and succession planning
- Provide clear pathways for station operations staff to develop operational competence within their roles, and support/ encourage staff to progress through these pathways.
- Provide station teams the same resources, support, training, and equipment as other operational staff to achieve key objectives, including real-time performance, incident, and passenger management
- Develop and implement a framework for the proactive management of station staff competence across all role types and a concise Passenger Services Manual setting out key operational processes for passenger services and roll out to all staff.

## Key Requirement 7.2 Develop and Implement Station Controls

**Develop and implement Passenger Operations Control Centres (POCCs) with skilled, proactive passenger management capabilities.**

### Why?

Station controls (or their equivalents) have become decentralised and TOC-specific in some cases. Inconsistency of structures, processes, systems, and communications are major weaknesses. There is a need for role clarity with Route / TOC controls and strengthened focus on management of station and train interfaces, punctuality, information, passenger flows and interchange arrangements. The stations team can often end up controlling the evening peak for the entire route due to managing key turnrounds. This means that recovery strategies need to be understood by both the station team and Route control. Complexities with train crew rostering and unit diagramming can result in very late posting of passenger information making concourse management difficult. This will raise the level of satisfaction for customers, especially during disruption. POCCs are already under development so this Key Requirement underlines the importance of deployment at all Managed Stations, tailored to each station's role.

### Key deployment areas

Driven and co-ordinated Nationally, but with exact arrangements customised to, and building on good practices from each Managed station.

- Specify, define, and deploy POCCs for each Managed Station including Passenger Command Suites/Incident rooms to actively manage train, facilities, and passenger services. Define roles, responsibilities, and capabilities of POCC staff and managers
- Define the technology requirements for POCCs to address passenger needs particularly for information and advice during disruption
- Where services are subcontracted, review the arrangements and SLAs to ensure alignment with this Strategy, deploying processes to manage delivery to SLA targets
- Network Rail route teams and respective TOCs should agree locations and determine the appropriate span of control for each POCC based on service complexity.

### **Key Requirement 7.3 Managed Station Train Performance**

**All Managed Stations will become fully accountable for platforming, on-time despatch, dwells and turnrounds, oversight of servicing and crew relief, and delivery of performance improvements against targets.**

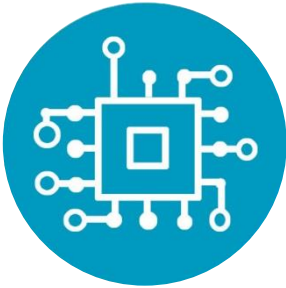
#### **Why?**

Managed stations involve large passenger numbers joining and leaving trains, often connecting as part of longer journeys. Historically, they have taken a passive role in punctuality, dwell times, train turnaround and despatch and there is currently no accurate means of measuring station dwell performance. Larger stations tend to be in locations of infrastructure complexity where platform and junction re-occupancy delays exert disproportionately severe reactionary delays. Late starts from origin, poor train turnarounds or dwell time delays often result from well-meaning yet misplaced patience with late boarding people.

### Key deployment areas

Driven Nationally, with arrangements customised to, and built on good practices, Network Rail Managed stations will develop and deploy Active Platform Management techniques including:

- Systematically review station dwell and turnround times deliverability utilising knowledge gained through KR6.2. Implement the resulting platform management processes with the relevant TOCs and monitor the impact
- Ensure that there is active engagement with train operators so that there is a clear picture of how different resource strategies at key locations could improve performance.
- Develop and deploy processes to improve performance during disruption, to recover late running. Implement processes to expedite despatch, including lessons from high-performing metros and 'pit-stop' techniques
- Adopt better approaches to analysing the characteristics of passenger flows and factors that affect them (e.g. platform capacity, train loadings and pedestrian flow rates)
- Re-configure station pedestrian flow, signing and platform design and proactive people management. to spread passengers along platforms to reduce dwells
- Routes to work with station and train operators for more vigorous dwell time management in congested corridors e.g. Piccadilly – Deansgate and Coventry- Wolverhampton.



## 8. Infrastructure Development and Technology Change

### Infrastructure Development and Technology Change:

*Technology change and Network Enhancement Projects are major investments in enhanced service delivery. Recently these have been driven by engineering, project, and asset management requirements, with the operations objectives relegated, often because the operations team have not had the capability or capacity to be clear about its requirements. Operators have had to take ownership of systems and assets with inadequate or sub-optimal capabilities to deliver to customers. The Operations function must have the responsibility, confidence, and competence to lead and drive the detailed specification planning and implementation of such changes.*

### Key Requirement 8.1 Operations Leadership of systems and projects

**Each Region will identify, fund, and implement sufficient new roles to lead the operational development of infrastructure projects and new systems, and build their professional and technical capability to take ownership of successful implementation.**

#### Why?

Operations entails applying detailed knowledge across the whole rail system to ensure that infrastructure and systems investments deliver the right operating outcomes. It is crucial that the operations function understand how these engineering systems and sub-systems work, and that in turn Operators have a key influence on system acquisition and deployment (for example, ARS, TMS, ETCS, Level crossing systems). There is a clear opportunity to build the capability of project operations interface managers to engage directly with enhancement project work, involvement throughout the GRIP cycle, checking that schemes will actually deliver the operation outcomes needed. This capability should sit within the Regional operations team and provide better focus on the issues rather than being a marginal-time task for LOMs which in turn releases LOM time for the real-time delivery.

### Key deployment areas

- Regions to create new roles of Operations Interface Managers and recruit and train sufficient people to lead and challenge the development of projects and technologies throughout their lifecycles
- At National Level, the specification of Key Operating Systems will be taken over by Directors with an Operating background who will lead and direct key systems projects including Digital Railway
- The career- development pathway for people in these roles should ensure they develop the breadth of skills and knowledge to sustain lasting relationships with engineers.

## Key Requirement 8.2 Operational Control Systems

**Each Route and Region will transfer operational leadership of rail systems technology projects to qualified operating staff to lead the definition, specification, development, trialling, and approval of new technologies, and how these should be implemented.**

### Why?

Rail systems acquisition is currently technology-led which has meant some operators having to handle new systems which do not deliver the required outcomes. There must be sufficient competent and experienced operators to lead work with the development teams on scheme specification and implementation. This will help ensure new projects and new systems deliver robust and resilient operations safely, aligned to predicted traffic requirements, and to people strategies rather than 'making people fit in' with the systems whilst complying with the Rail Technical Strategy. This is critical in Digital Railway where Network Rail lags 20 years behind similar railways in network management. But the industry can only move forward if the functionality required for TOC systems is addressed as part of this overall challenge: getting end-to-end solutions for planning and operational control.

### Key deployment areas

- Sponsorship of National level Digital Railway systems capabilities to be transferred to an Operations Director who will take control of the selection, deployment and exploitation of operational technology and systems, including the role played by TOC systems and ensuring Network Rail has expertise in these areas
- Region/Route operating personnel to take the lead in specifying the train service management and safety systems (including but not limited to TMS, ARS and their planning systems interfaces, ETCS, Signalling, Level Crossing control) required to deliver the traffic management and control of the railway within the national framework
- Assess the benefits that signalling degraded mode functionality can offer for performance and safety and select the chosen functions for implementation.

### **Key Requirement 8.3 Network Enhancement Projects**

**Each Route and Region will transfer the operational leadership of infrastructure enhancement projects to qualified operating staff who will work through the entire GRIP lifecycle of each project to ensure delivery of the correct operating outcomes.**

#### **Why?**

Current incentives to deliver enhancement projects may be insufficiently aligned to ensure the investment delivers the operational outcomes needed and that the changes are operable. Much greater focus is needed throughout the project lifecycle to ensure they deliver the operational outcomes necessary, not just be on time/on budget. Enhancement Project development will include a client role for Operations from within the Regions' line management teams. The practice of relying on staff with operational experience within the project teams or marginal-time involvement from LOMs leads to unacceptable designs being implemented. Projects have progressed to implementation which have never fully connected with operators where the project team have delivered the project as planned but it has increased OPEX, created poor ergonomics and in some cases increased headcount.

#### **Key deployment areas**

- Implement processes within each Region/Route to ensure deep operations involvement in the project scope and signed-off commitment to operational output and performance specifications
- Processes shall include detailed involvement throughout each GRIP stage, confirming that the chosen options will deliver the current, and forecast train service requirements, in a resilient manner, with rigorous thought given to foreseeable failures.
- Support services in areas such as simulation and project scheme design to be provided to support the operations personnel in these activities.

### **Key Requirement 8.4 Critical Operational Support Systems**

**A comprehensive set of plans will be developed to modernise the suite of operational support systems which includes TRUST and TOPS. The plans will also encompass the exploitation of operational systems with untapped capability to deliver better customer outcomes, train planners and operational real time control. Each system will have its own development plan and a named operating sponsor.**

#### **Why?**

Critical operational support systems are those not directly controlling trains, but which are essential for network operation and information provision. Old systems have received insufficient attention to their increasing obsolescence. Paradoxically there are modern operational systems such as DARWIN which are insufficiently exploited to deliver customer benefits. These change impacts run across the whole industry, needing a collective approach.



### Key deployment areas

- Identify and fund the investment necessary to enhance the capabilities of Passenger information systems – on-station, on-train, and upstream interfaces with national systems and databases such as DARWIN., for example to tackle the difficulty of capturing service amendments in real time for rapid customer information and advice
- Develop a strategy for the management of legacy systems and databases for example but not limited to TRUST/ TOPS/ CCF including their replacement and decommissioning
- Develop and deploy a plan for transition to new Stock & Crew and Incident Management Systems, including, but not necessarily linked to changes in TMS deployment.



*Provision of high-quality information to customers is a basic requirement of any railway system. It will require input from all levels of the operations function.*

## 9. Customer Information

### Customer Information:

*Provision has been a long-standing challenge for the railway industry. Despite cross industry efforts to improve, customer insight clearly evidences that we fail to meet rail passenger expectations, particularly during disruption. Customer information is a 'golden thread' across multiple areas of the industry and a collaborative and determined approach is required to address the challenges.*

### Key Requirement 9.1 High quality Customer Information

#### Provision

Implement an industry-wide programme to deliver a 'step change' in customer information quality (involving Network Rail in partnership with TOCs and RDG). The programme's approach is customer centric (what is the right thing to be doing for the customer) and industry-wide (a whole system approach). There are linkages to many other Key Requirements throughout this Strategy.

#### Why?

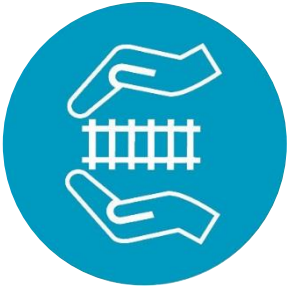
The provision of good quality information to customers is a Passenger Operator Licence Condition. Following their review in 2019, the ORR required a formal response from the industry on how they will improve delivery of customer information. Customer insights confirm we are failing our customers in this key area.

#### Key Development Areas

To achieve the goal of a step change in customer satisfaction, we need to provide customers with information that is **timely, accurate, personalised** and **accessible**. This will require **greater integration** across the industry, both in terms of **systems** and **culture**, underpinned by a thorough **understanding of customer needs** and robust **data & insights**.

Key development areas include:

- Improve personalised journey information for customers
- Improve the use of station customer information screens
- Improve on board announcements
- Understand the industry strategy for integrated Traffic Management and Stock and Crew Systems; identify and address blockers to unlock richer and more accurate customer information
- Adopt industry wide standards for Incident Management Systems and live messaging systems (or close integration standards between systems)
- Improve real-time train information (Darwin)
- Expand the concept of 'one team' to all NR managed stations (phase 1) and in stations where multiple train operators service (phase 2)
- Review and make recommendations for improving collaboration during major disruption (Customer Service Level 2 – CSL2)
- Create data marketplace to provide open and available data sources to third parties
- Improve the provision of real-time station and train facility information
- Define the ultimate customer information experience by reviewing the systems, processes and people who contribute to the delivery of customer information
- Implement the new ORR Customer Information Measure (akin to maturity model), starting with pilot with selected train operators.



## 10. Operational Assurance

### Operational Assurance:

*In addition to a critical focus on safety, assurance of wider operational practices is an imperative, particularly given the performance and customer impacts. Assurance requirements will be segregated and differentiated at local, area, Route, Regional and National level, supported by an appropriate level of independent assurance to offer challenge, verify attainment, and encourage sharing of best practice.*

### Key Requirement 10.1 Operational Safety Assurance

**Operational safety assurance, audit and verification capability will be implemented following the GRAI approach to provide Directors with confidence in safe delivery and shared good practice.**

#### Why?

Sound, progressive safety assurance of operational delivery will enhance management of hazards, reduce risk to people and improve network business performance. There are risks of uncertainty and inconsistency in a devolved structure and a systematic approach to operational safety assurance will anticipate, explore, and correct any emergent weakness.

#### Key deployment areas

- Develop, publish, and deploy a risk-based operational safety assurance process which provides a practical, approach, includes the action for each level of network management to create and maintain assurance at: Front line, Route, Regional and National Levels
- Ensure this is fully aligned to the GRAI Model
- The assurance system will include definition of the risk-based frequency, scheduling and methods for assurance checks, independent verification the results drive improvements.
- The processes of Safety Critical Work Assessment will be overhauled to re-focus on core safety activities with focus on ensuring the right things are done rather than 'box ticking'.

## Key Requirement 10.2 Operational Performance Assurance

**Rigorous and systematic processes will be implemented to drive improvements in the delivery of rising standards of train service performance and customer information.**

### Why?

Assurance goes beyond safety and should focus on all-round performance and customer excellence. Such capability must be structured and integrated.

### Key deployment areas

- Undertake independent assurance that the assessment in the RM3P model is undertaken in a structured way with scoring applied correctly and outcomes rigorously adopted
- Provide a national and regional support mechanism to operations teams that encourages the sharing of good practice as well as identifying weaknesses
- Ensure the assurance processes align with Network Rail's GRAI requirements.

## Key Requirement 10.3 National Assurance Capability

**A National Assurance Capability for Operational Safety and Performance Management will be established independent of line management, with oversight across the network.**

### Why?

For many years HQ inspectors and auditors provided assurance to Directors- for example, on the safe and correct application of rules, and highlighted key emerging safety risks well before they caused accidents and incidents. These roles also offer a career path for people who want to specialise in operational assurance rather than line or business management. Time and change have eroded this capability and re-setting of the activity is an imperative.

### Key deployment areas

- Define the National Assurance Capability roles including support and, encouragement of excellence in operational safety and performance by Regional, Route and front-line teams
  - Recruit and staff the team and roll-out a risk-based programme of audit verification and inspection
  - Define the approaches to verifying evidence and development of Post-Audit Action Plans
  - Ensure that these roles provide assurance on wider operational practices and in particular how they impact performance.
-