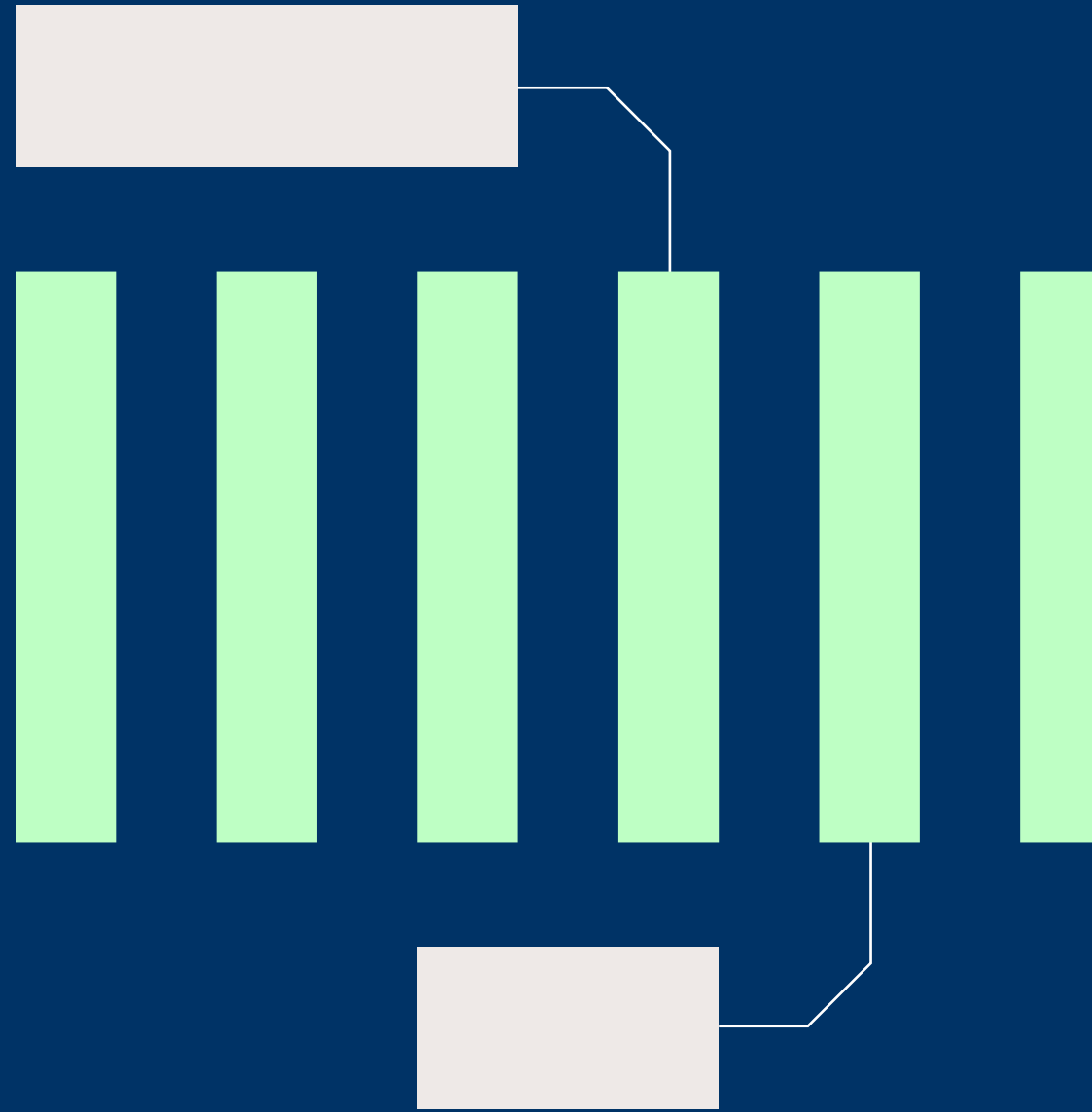




Network Operating Strategy





Contents


The purpose	3
Background and links to Net Ops 1	4
The vision	9
Strategy based on realities of operational imperatives	11
<hr/>	
Target issues (1 to 8)	13-43
<hr/>	
Next steps	47
Driving future operating strategy	49
The way ahead	50


TARGET ISSUE (1)
'Whole system' operations thinking  **13**


TARGET ISSUE (2)
A joined up railway for customers  **18**

TARGET ISSUE (3)
Competence and future proofing  **23**

TARGET ISSUE (4)
Fulfilling operational careers  **27**

TARGET ISSUE (5)
Embracing and driving change  **31**

TARGET ISSUE (6)
Operations-led technical change  **35**

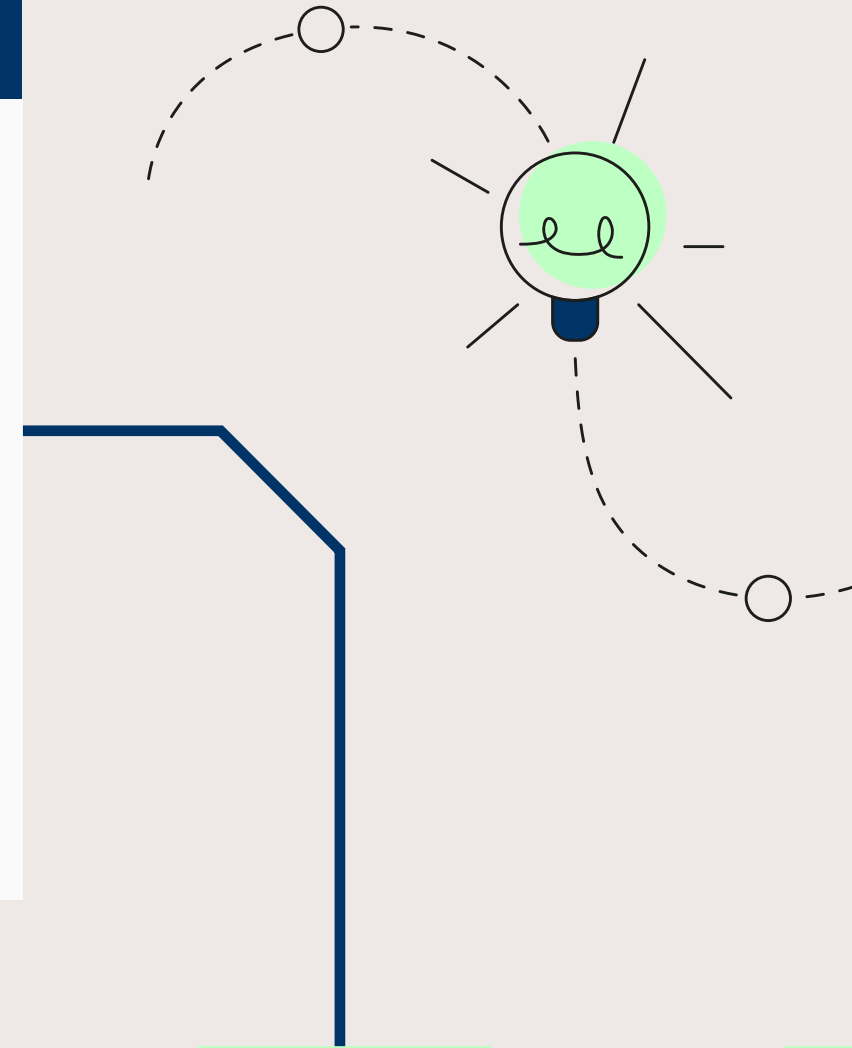
TARGET ISSUE (7)
Freight operational opportunities  **39**

TARGET ISSUE (8)
Agile operations  **43**

The purpose



The Network Operating Strategy (Net Ops) drives an operating environment of people, processes and systems that is equipped, empowered and capable of excellent service delivery for today's customers – **while preparing for the railway of tomorrow.**



Background and links to Net Ops 1

The railway needs many key skill areas to run effectively.

This includes railway operators, civil, signalling, electrical and mechanical engineers.

Whilst the engineering disciplines have well-defined standards and career structures, operations has struggled to develop a similar clear identity.

Net Ops 1, published in Summer 2020, focused almost wholly on issues within Network Rail. In this, the second phase of the Network Operating Strategy, the same extensive consultation process was used to incorporate operating managers from across the industry. Many of the themes from the key requirements set out in Net Ops 1 were mirrored in the research for Net Ops 2.

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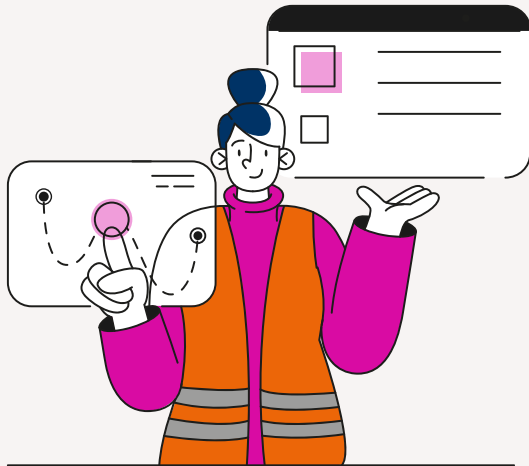
We've been distracted by things outside the core point of our existence, and lost respect for its delivery. We've also been fixated by blaming everything on the commercial structure and behaviours of the industry. These are real issues but not the main thing. We need a strategy to get us out of this.

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Background and links to Net Ops 1

The outcomes in this document don't replace the requirements set out in Net Ops 1 but extend the focus to the whole industry.



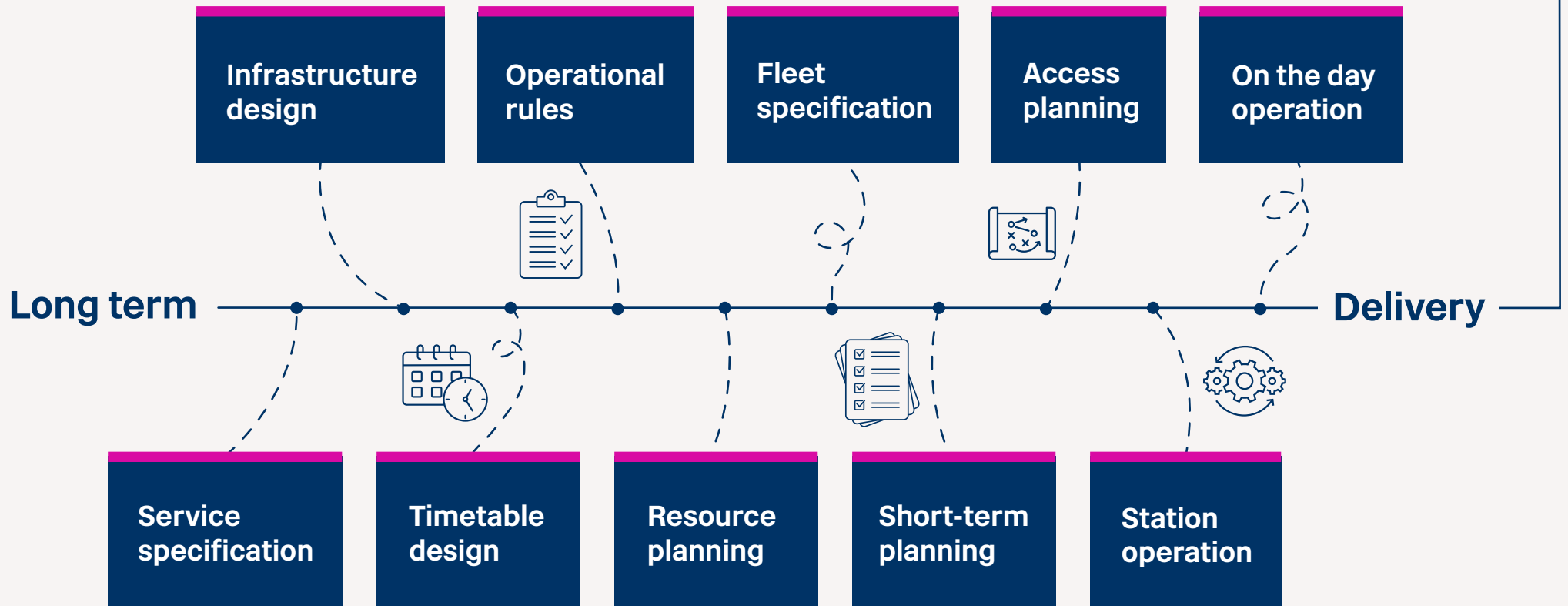
Throughout this strategy, we'll highlight where progress has been made with Net Ops 1 and where there are opportunities to do more.

In phase 2, the consultation process revealed that operations was a discipline struggling to deal with the long-term impact of vertical separation. This led to splitting the operational function between the infrastructure manager and the train and freight operators. Over the last 25 years, this has gradually led to staff and managers having little experience outside their own organisations. Alongside this, participants felt that operations is seen as only about day-to-day delivery and isn't involved in setting or influencing strategy.

As a result of these issues, contributors often focused on the people within operations, both on the frontline and other roles, and the need to make changes to ensure it's capable of meeting the challenges of a post-Covid-19 world. Direct quotes from contributors are used to help emphasise points throughout the strategy.

The scope of operations was a regular discussion point, and this strategy is aimed at the broadest definition of operations. Operations affects the whole industry supply chain, from service specification through to on the day delivery. The following diagram shows this as a broad ongoing journey:

Background and links to Net Ops 1



Background and links to Net Ops 1

By recreating a function that understands and drives the right solutions at all stages, we can design, build and operate networks capable of delivering the results expected by our customers and stakeholders. This means operational leaders and technical experts that understand infrastructure, passenger and freight operations and how they impact on each other. Not just a function that can deal with day-to-day problems.

This way of thinking is essential to everyone involved in delivering railway operations. From signallers and drivers, to stations and control room staff; to those working in depots and offices. Train planning to catering, electrical control and more. This list is not exhaustive, and everyone involved has a role to play.



Background and links to Net Ops 1

Alongside the need for greater system knowledge, operators must have an excellent understanding of the engineering and regulatory issues that affect how the system operates. A lack of this knowledge was highlighted throughout the consultation.

Railway operations should be an exciting, fulfilling part of the rail industry to work in. It offers a huge variety of experiences and an opportunity to make a real difference, not just to the rail industry but also to the wider community it serves. This strategy offers an opportunity for operations to take steps to be at the heart of the railway.



Summary of consultation findings:



Insufficient experience and knowledge of 'end-to-end' railway operation



Lack of commonly recognised and respected qualifications for operations people



Unclear career options for operations people



Lack of 'respect' for operations as a discipline or profession



Difficulty attracting sufficient good quality candidates into management grades



Insufficient training and development time 'away from desk' or utilising simulation equipment



A general culture of firefighting and a feeling of being 'done to' rather than being involved in change

The vision



A rail system which delivers excellent operational performance for customers with:

- **fulfilling, and developing operational careers for our people**
- **enablement and exploitation of innovative and digital technologies**
- **a joined-up approach to operational delivery.**

The vision

The Williams-Shapps review sets clear objectives for the industry to improve the skillsets of our people and the systems and technologies it uses, with a strong emphasis on operations. This strategy is aligned with the objective of better enabling our railway operational teams to deliver better and efficient train services for the benefit of our customers, and to grow and develop a skillful and effective rail operating people.

Several existing strategies set out goals for our railway in the next 10-20 years. This includes the rail technical strategy and the Whole Industry Strategic Plan (WISP). Currently, the response to the Williams-Shapps report and the plan to rebuild support following the Covid pandemic, mean there's a lot of thinking in this space. Net Ops 2 seeks to complement and reinforce that work. It sets out to develop themes and actions and to make sure the operational workforce is equipped for real-time operational delivery.



It also aims to transform the operating functions of the railway to deliver better future outcomes.

The target state identified in the operational philosophy, the rail technical strategy, and digital railway confirm several areas in which the current delivery and culture will fall short of what is required.

To deliver this transformation (and the outcomes required by passengers, stakeholders and funders), the railway operating community will need to embrace:

- **customer delivery at the heart of everything**
- **cross-industry development and knowledge sharing**
- **operations respected as core to delivery and a profession to be nurtured**
- **accreditation of operators**
- **agility in decision-making to facilitate and embrace change.**

Bringing together phases 1 and 2 of Net Ops, alongside the industry reform anticipated through the recently published white paper, offers an opportunity to reunite areas of the operating railway that have struggled to deliver.

Strategy based on realities of operational imperatives



Net Ops 2 has been developed with heavy involvement from senior rail operations leaders. Their experience and perspective have offered compelling insights into the challenges and opportunities which need addressing, both in the immediate months and longer-term.

This strategy brings views from across the industry into a set of clear improvement targets. The consultation process used to formulate Net Ops 2 generated valuable input from across UK passenger and freight operations. Contributions were made by senior leaders in the operational delivery of train operating companies (TOCs) and freight operating companies (FOCs), as well as from key supporting organisations including the Rail Safety and Standards Board (RSSB), Rail Delivery Group (RDG) and the Institution of Railway Operators (IRO).

People



- Whole system thinking
- A joined up railway for customers
- Competence and future proofing
- Fulfilling operational careers

Change/technology



- Embracing and driving change
- Operations-led technical change

Process



- Freight operational opportunities
- Agile operations



Strategy based on realities of operational imperatives

The industry must own and deliver the strategy. Therefore, it presents a strategic level RACI (Responsible, Accountable, Communicated, Informed) to identify where best to drive change and improvement.

The development of the strategy revealed an operating community that has experienced many previous attempts at defining a vision of future operations. There was a strong sense that there are areas where improvement is needed, but no guidance on how to make it happen. In this context, the strategy outlines the common challenges to address and includes a set of suggested steps towards achieving improvement.

Key first steps

Effective change begins with someone taking the first step, even if every step on the journey is unknown. Each topic in this strategy has 'key first steps' (KFS) proposed. These are suggested first actions that the industry will consider taking forward. These KFS aren't mandatory but are suggested to get things moving, create momentum and enable us all to break into much larger topics easily.

Net Ops 1 progress

Where relevant, we've outlined the progress made since the publication of Net Ops 1. Not all sections have a direct relationship to the recommendations in Net Ops 1 because of the nature of Net Ops 2 and having a different perspective.



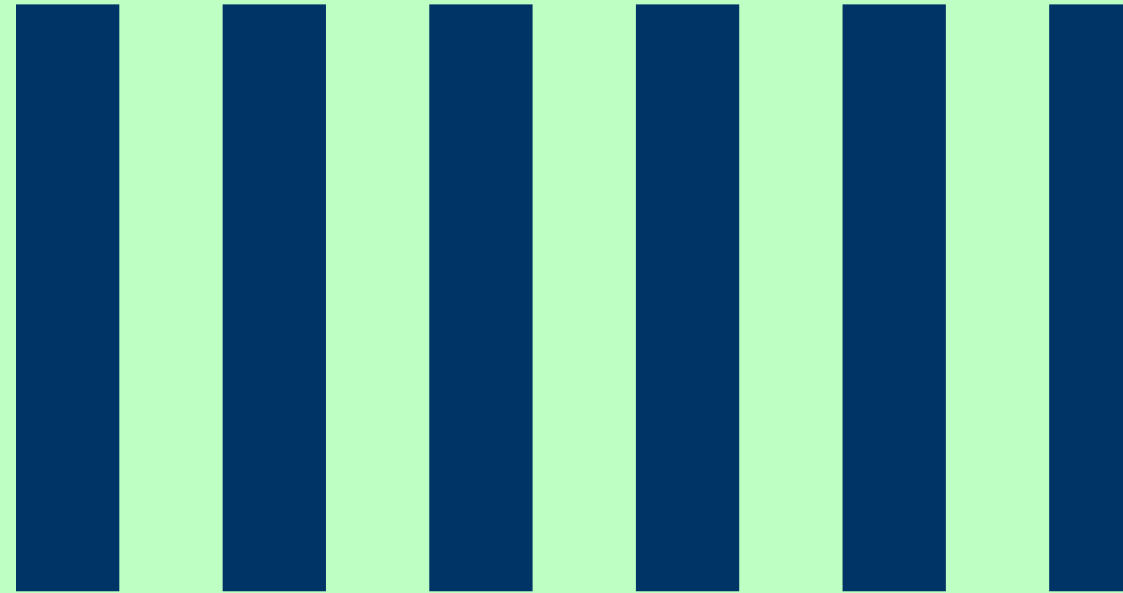
'Build back better' will only work if we do it together, take joint ownership. We're not currently incentivised to deliver excellence and the Railway is judged on a customer's worst experience.





Target issue (1)

‘Whole system’ operations thinking



Target issue (1): ‘Whole system’ operations thinking

Operations is seen by many people as only being about on the day delivery and ‘fire-fighting’. This limits our ability to think strategically and improve delivery for customers over the long term. Operations is about delivery of great customer outcomes through a system including conceptual thinking, innovation and change, planning, delivery, and problem solving.

Daily train service delivery to customers is the key part of operations. Our contributors told us this is valued above all other parts of the operations timeline. But there’s a lack of respect and understanding for the ‘backroom’ operational elements, including not recognising key processes such as train planning or rostering. Across the organisational divide, this can include TOC/FOC delivery managers lacking an appreciation of infrastructure engineering and vice versa.

Contributors also felt the balance of knowledge and experience in key management roles was below what has been developed and nurtured in the trade unions. They can provide longevity, practical experience of delivery, access to training and a unified voice in a way that the railway has struggled to replicate in its operators.

This can often leave managers (particularly those towards the start of their career) exposed when dealing with things like traincrew roster negotiations.

Commitment 60 of the Williams-Shapps report states that a sector-wide workforce plan will be developed to assist employers and build system-wide resilience. These steps aim to support this.

The best operational conversations are where brand loyalty is parked at the door. It’s a breath of fresh air when you find these people.

Target issue (1): ‘Whole system’ operations thinking

Target state

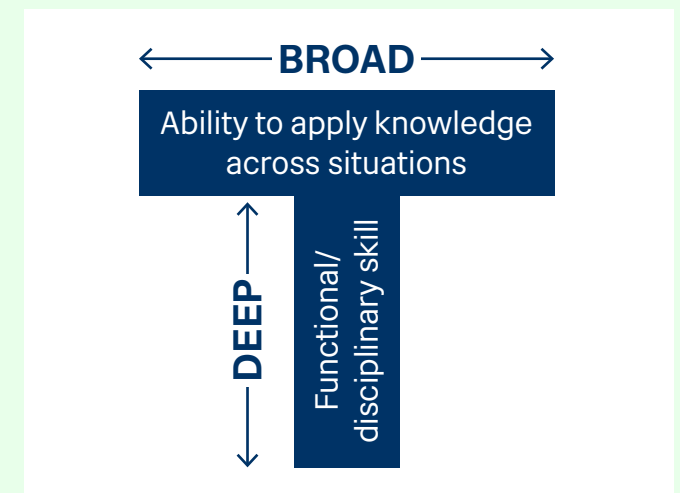


The operations strategy should be planned at an industry level to focus on delivery to customer. Commercial interests should then be aligned to enhance the industry’s ability to run the railway well. Operations teams should recruit, retain and reward strategic thinking and planning capability.

The rail industry has structures in place to facilitate strategic direction on matters affecting all areas of operations. RDG Operations Council, and other forums with cross-industry representation, should agree and communicate strategic actions. This should include an aligned approach to things like technology, training and recruitment of traincrew. We need to become much better at training people in negotiation and empowerment to create change and improvement. Operations managers should be equipped with information and understanding to allow robust and effective negotiations with trade unions.

Recruitment and development in operations should include building and retention of people who are able to think creatively and find better ways of delivering.

Operations teams should include strategic development and planning capability, with these skills being valued and nurtured in the same way as people management, problem-solving and other technical operations skills are currently. Recruitment techniques should seek out people with the ability to develop ‘T-shaped’ careers, where they have both specialist and general railway knowledge.



Target issue (1): 'Whole system' operations thinking

Steps towards target state

Net Ops 1 progress

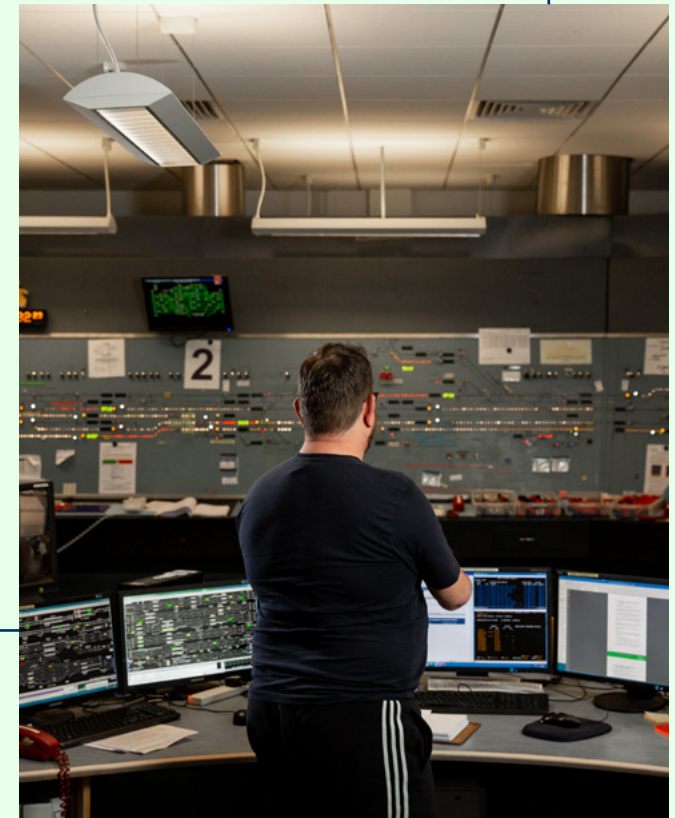
A significant amount of work has been done to lead the way in recruiting operations differently. Anglia route has implemented several initiatives including a talent strategy, a revised operating approach at Liverpool Street Integrated Electronic Control Centre (IECC) with accompanying re-structuring of key roles. Nationally, operations managers in Network Rail now have access to modern industrial relations training as part of the '21st Century Operations' programme.

Recommended actions

Operational leaders will drive forward whole systems operational approaches.

// We bring in brilliant people from outside the industry but we need to give them enough context.

//



Target issue (1): ‘Whole system’ operations thinking

Recommended implementation steps	NR	TOCs/ FOCs	RDG	IRO	BOPB
An industry wide strategy should be established to manage key industrial relations issues. This should be developed using existing industry forums and communicated to all involved.	R	R	A	I	R
Industry forums such as RDG Operations Council should improve how messages reach the industry as a whole, rather than just attendees.	I	I	A	–	R
Recruitment into operations should be reviewed including job descriptions, advertisements, testing and interview methods to improve the likelihood of attracting and selecting people with the ability for ‘T-shaped’ careers.	R	R	I	I	C
An industry operations strategy taskforce should be created. With representation from across the industry, this group should develop a roadmap for removing the blockers to excellence in operations.	R	R	A	–	C

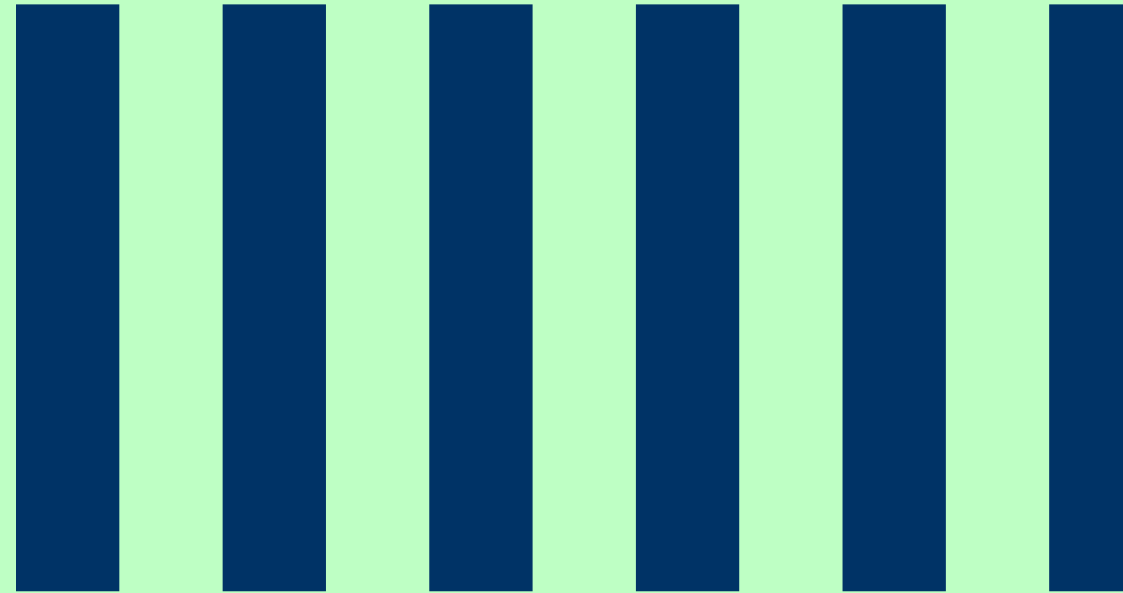
Key first step

RDG will initiate a programme to scope and then provide a series of actions to deliver this change. It will involve TOCs, Network Rail and be monitored for progress by BOPB. Progress made on Anglia route should be rolled out as best practice across Network Rail routes. Working with the rest of the industry in Net Ops 2 will enable this good work to include whole system thinking.



Target issue (2)

A joined up
railway for
customers



Target issue (2): A joined up railway for customers

i

Our operating community lacks knowledge of the whole railway and doesn't incorporate 'system thinking' in the way it runs train services for customers.

Unlike other areas of the railway, operations was split down the middle when train operations and infrastructure operations management were separated. This has created a split in knowledge and thinking, rather than considering operations as a 'whole system'. Our contributors described how this looks within company boundaries. For example, with train planning being disconnected from delivery and over-emphasis on drivers or secondary quality issues. They also described how it looks across different business boundaries. For example, with FOC contributors describing the difference in technical knowledge of operating rules in their business compared to in Network Rail.

//

The system needs to be more efficient and a joined-up railway will surely have more chance of delivering this.

//

Target issue (2): A joined up railway for customers

Target state



An operating community with many options for all to get industry wide knowledge. This should include apprentices, graduate trainees and mid-career entry colleagues, and give everyone the opportunity to experience the entire breadth of railway operations.

The railway is a system. The experience of poor customer delivery, such as that during the May 2018 timetable (characterised by issues in understanding capacity allocation and the impact of late change, amongst others), has demonstrated that a lack of system-wide thinking is bad for the railway and its customers. Our contributors all felt that there was a lack of industry-wide training available. There was support for a training, development and career progression system that would offer a place to provide cross-industry knowledge and experience. Rather than offering just training, contributors should be nurtured in their early career roles to encourage the development of varied experience across a range of industry roles.

The IRO has plans to introduce a secondment scheme that could help us meet this goal.

The 'Transfer Window Scheme' will create a framework within which IRO member organisations will be able to facilitate secondments. This will enable railway operators to gain experience of working in other areas. Supported by structured learning (including that provide by IRO), these experiences will be invaluable.

Target issue (2): A joined up railway for customers

Steps towards target state

Net Ops 1 progress

Network Rail's '21st Century Operations' programme has sponsored 55 IRO academic courses, helping to promote cross industry learning in operations. The Network Rail apprentice and graduate training schemes now also include IRO modules as part of the core learning.

Recommended actions

The industry should work collaboratively promote cross-industry learning opportunities.

//

We need to wrap people in a really strong and comprehensive cross-industry development programme.

//



Target issue (2): A joined up railway for customers

Recommended implementation steps	NR	TOCs/ FOCs	RDG	IRO	BOPB
The industry should work collaboratively to overcome barriers to secondments/job swaps where they would offer industry value.	R	R	A	I	C
Baselining of operating knowledge should take place across the operations community, using the full suite of training available from IRO to encourage a certificated and recognised method of acquiring operational knowledge.	A	A	I	R	I

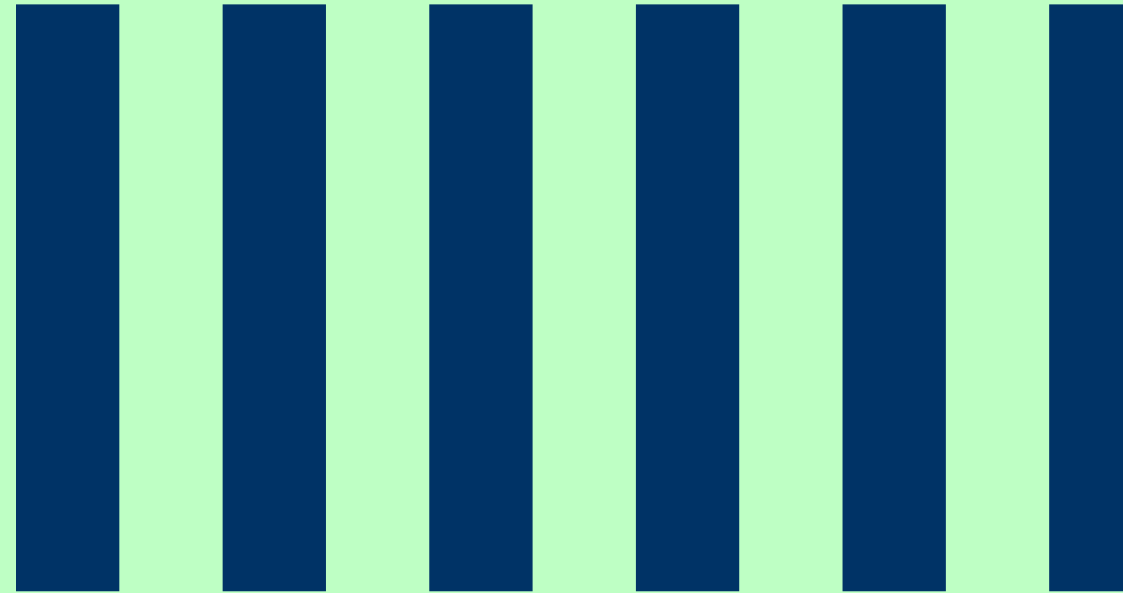
Key first step

Baselining of operating knowledge should take place across the operations community, with the results reported back to BOPB. The Williams-Shapps review and creation of Great British Railways requires the industry to work collaboratively in creating operational talent. This should be used as a platform on which to build capability to deliver secondments and cross-industry job swaps, so that wider knowledge and experience can be gained.



Target issue (3)

Competence and future proofing



Target issue (3): Competence and future proofing

**i**

Operations lacks a structured and consistent approach to ‘away from desk’ training, and cross-industry development of key roles such as apprentices and graduates.

Operations functions struggle to find time to develop and implement effective training packages and skills development for their people. ‘Away from desk’ training and simulation aren’t widely used or consistent in their quality.

Structured schemes, such as apprenticeships and graduate training schemes, rarely include the whole of railway operations and fall short in their ability to nurture new managers through key development roles.

Secondments to experience operations as a whole, along with the opportunity to move between different operating roles (either temporary or permanent), are rare.

This results in a community of operators with limited knowledge, lacking in breadth of understanding and with less opportunity to craft a long-term and fulfilling career. Commitment 59 in the Williams-Shapps report states that joined-up, cross-sector training and skills will support people at every career stage to develop skills and bring in experience from outside the rail sector. These steps will support that objective.

Target issue (3): Competence and future proofing

Target state



The operations function will develop and deliver competency in a way that sees the system as a whole, regardless of industry structure.

Operations professionals should be given enough time away from their core activities to develop and improve their skills. Those new to operations should be given a comprehensive training package that exposes them to all aspects of operations, regardless of their employer.

Steps towards target state

Net Ops 1 progress

Network Rail is developing and trialing the implementation of a competence management framework. With signaller competence being identified as the highest priority, verification and assurance of wider skills have also been identified as key outputs.

Recommended actions



Innovative ways to grow and sustain operational competence will be deployed.

Target issue (3): Competence and future proofing

Recommended implementation steps	NR	TOCs/ FOCs	RDG	IRO	BOPB
Simulation-based training should be invested in and operational teams allowed the headroom to deliver 'away from desk' training and improvement activity for all operations teams.	A	R	I	C	I
Graduate and apprenticeship schemes should be cross industry and include a meaningful duration of time with a minimum of TOC/FOC and Network Rail. These schemes should include exposure to both passenger and freight operations as well as Department for Transport (DfT) and Office for Rail and Road (ORR).	R	R	A	C	I
An industry graduate training scheme should be developed, including retention post-training to allow for build up of experience in crucial early ops roles.	R	R	A	C	I
Industry should work collaboratively to overcome barriers to secondments/job swaps where they would offer industry value.	R	R	A	C	I
The Connected Leaders programme should be adapted and expanded to include leaders in more levels of leadership in the industry.	A	R	R	C	I

Key first step

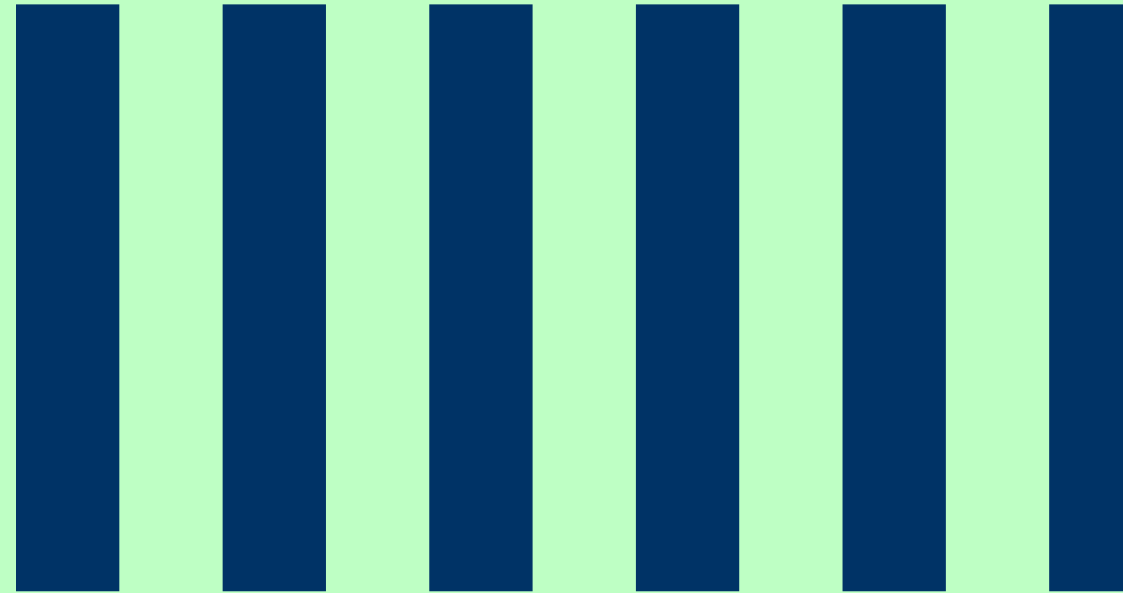
On behalf of the industry, Network Rail should lead in a review of operational training facilities and programmes. As the foundations for the creation of GBR are laid, a key focus should be on developing industry-wide training and development schemes such as apprentice and graduate training schemes. As a short-term step, the Connected Leaders programme should be expanded to include a wider community of railway leaders.

The Connected Leaders initiative should be broadened from the current senior leader cohorts to include a wider group of industry leaders incorporating all levels of people managers. It is particularly important to connect leaders who can support each other in understanding operational deliver across the operations continuum. For example, driver managers and local operations managers, those who manage operational safety risk across the spectrum of operations, and all those leading customer experience teams.



Target issue (4)

Fulfilling operational careers



Target issue (4): Fulfilling operational careers

i

Great British rail operations have a lack of professional recognition and career pathways for its people. Many roles, particularly involving leadership, are therefore less attractive to potential new entrants. It's harder to retain and develop talent and a struggle to promote diversity. A changing demographic requires a pipeline of people with the right knowledge, capability and experience to take the railway forward.

Unlike other rail careers, operations lacks a recognised professional certification for its people. Within different areas of operations, there is a lack of standardisation of job titles and role content. Structural changes to management contracts, pay differences and mixed perceptions of value in operational leadership roles have all driven a lack of clear direction.

There are longstanding difficulties attracting people to move out of frontline 'grade' roles on a permanent basis, which are brought about and made worse by these issues.

A changing demographic and lack of sufficient turnover in senior roles isn't supported by effective and comprehensive succession planning. Our contributors all recognised difficulties in these areas, though few had formal plans to help their successors. They felt industry incentives and structure were a barrier to achieving this.

//

The best people are personally invested in developing themselves.

//



Target issue (4): Fulfilling operational careers

Target state



Clearly identified pathways for operations people, with structured and supported succession planning in place to identify and nurture diverse and effective operations leaders of the future.

Those at the start of their career in railway operations should be able to plot a choice of attractive career routes and feel supported in taking steps to progress. The industry will work together to agree a common understanding of the experience and qualifications needed from its leaders. And invest in the support needed for the leaders of tomorrow to achieve them. This development should form the basis of meaningful development discussions with line managers and mentors who recognise the importance of encouraging progression in operational careers. Opportunities to move jobs within the industry via secondments or transfers should be made easier to allow our people to experience different areas of the industry.



Operational leaders will invest in their people and nurture future leaders.

Steps towards target state

Net Ops 1 progress

The 21st Century Operations programme are already supporting this area through its Operations Capability workstream, delivering Career Pathways, mentoring schemes, the development of an operations talent management strategy to support professional and personal development planning.

Target issue (4): Fulfilling operational careers

Recommended implementation steps	NR	TOCs/ FOCs	RDG	IRO	BOPB
Succession plans should be in place for key roles in operations. These should be comprehensive, identifying movement in the organisation for the next 5-10 years	R	R	A	C	I
Development plans should be agreed with those in operational roles as part of their onboarding and progression into new roles. These should be supported by professional and personal action plans to deliver the required knowledge and experience.	R	R	A	C	I
Operations people should be given time away from their day job to support their development. This should include academic training (e.g. IRO certification), practical experience (through secondments, shadowing etc) and ownership of their own self-directed learning (where people take charge of their learning processes).	R	R	A	C	I
Operations leaders should be recruited with future talent in mind and the capability to rapidly acquire operational domain knowledge, as well as the traditional competency-based demonstration of suitability.	R	R	A	C	I
Senior leaders should actively encourage opportunities for 'stepping up' of identified future leaders to demonstrate capability ahead of live recruitment processes.	R	R	A	C	I

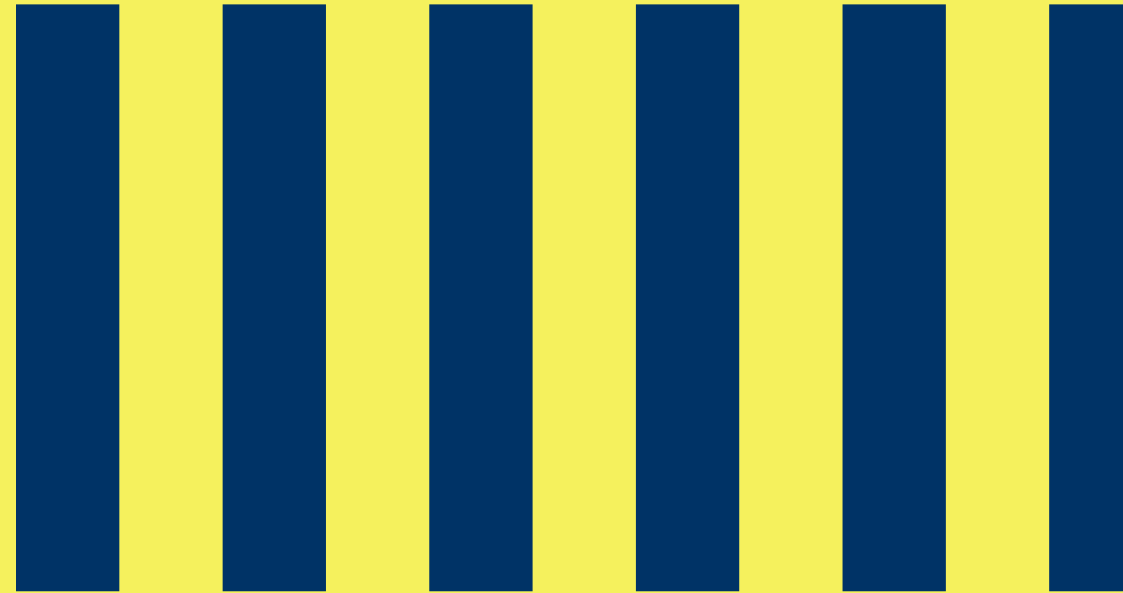
Key first step

Co-ordinated by the RDG People Leaders Forum, a framework for supporting and developing operational leaders should be developed for the industry.



Target issue (5)

Embracing and driving change



Target issue (5): Embracing and driving change

**i**

The railway is constantly changing and adapting to the needs of customers. People in operations feel unprepared for changes to how the railway is run, despite being at the heart of its success. Layering of change and lack of resources to manage implementation of things like new technology leave people unable to do their best and can often drive resistance.

Change is now the norm. The rapidity of change has increased in the past three years. This is due to the 2018 timetable delivery, followed by the Covid-19 pandemic, and likely structural changes to the industry as a result of the Williams-Shapps review. The industry has been on the verge of a digital revolution for some time, with leaps into transformational change such as digital railway still on the cusp and driven largely by engineers.

These factors have created a group of operators who recognise change is inevitable, but tend to view it as something that's 'done to them' which leaves them feeling unprepared for it.

Moreover, many partial (or even failed) deliveries of change projects have created a lack of confidence and sapped enthusiasm for change.

Changes have been driven by engineering, project, and asset management requirements, with the operations objectives getting pushed aside. This is because the operations teams have not had the ability or capacity to be clear about requirements. As a result, operators have been given new systems to use without consultation, training or explanation. The operations functions must have the responsibility, confidence and competence to lead and drive the detailed specification planning and implementation of these changes.

A better balance is needed between retention and incorporation of knowledge embedded over long careers. We also need new ways of working and the ability to transform operations for the benefit of customers and operations teams.

Target issue (5): Embracing and driving change

Target state



The railway should be prepared and resourced to successfully embrace the changes required of it. Our people should be supported with resources sufficient to engage in and lead the design, development and implementation of change. Those with many years of experience will leave the railway having passed on their knowledge and will be respected and rewarded for their role in nurturing the next generation.

Our people should be confident in implementing new digital systems and processes. Operations people with long standing experience should be respected and used to implement change, alongside new thinking and ways of working. The railway should seek optimal solutions, rather than creating digital versions of outdated methods.

Generational differences in learning style and attitudes towards work should be considered in how change is approached. For example, 'Millennials' who may embrace multiple career moves and changing competencies may think very differently to 'Baby Boomers' who value loyalty and deep levels of experience built up in a straight career path. All have a place in the railway of the future and should be incorporated into our approach to change.

Steps towards target state

Net Ops 1 progress

Network Rail published an operations talent development strategy in May 2021, recognising the need for diverse methods of engagement and development. Alongside this, early engagement materials for school leavers are being produced with a view to engaging early with future operations people.

Target issue (5): Embracing and driving change

Recommended implementation steps	NR	TOCs/ FOCs	RDG	IRO	BOPB
Projects to enhance and expand the involvement of operations in project design and development.	A	I	I	I	I
TOCs/FOCs to provide operational specialist resource for project development and research.	R	A	I	I	I
Current industry leaders (Thameslink, Crossrail) should fully engage with recent and current developments including HS2/East West Rail (EWR) to ensure operational innovations capable of wider application are exploited fully.	R	R	A	I	I
Industry should form 'centres of excellence' and legacy sharing platforms to maximise the benefit of experience and knowledge.	A	R	I	I	I

Recommended actions

The industry should invest in research and development into new and innovative ways of operating the railway better.

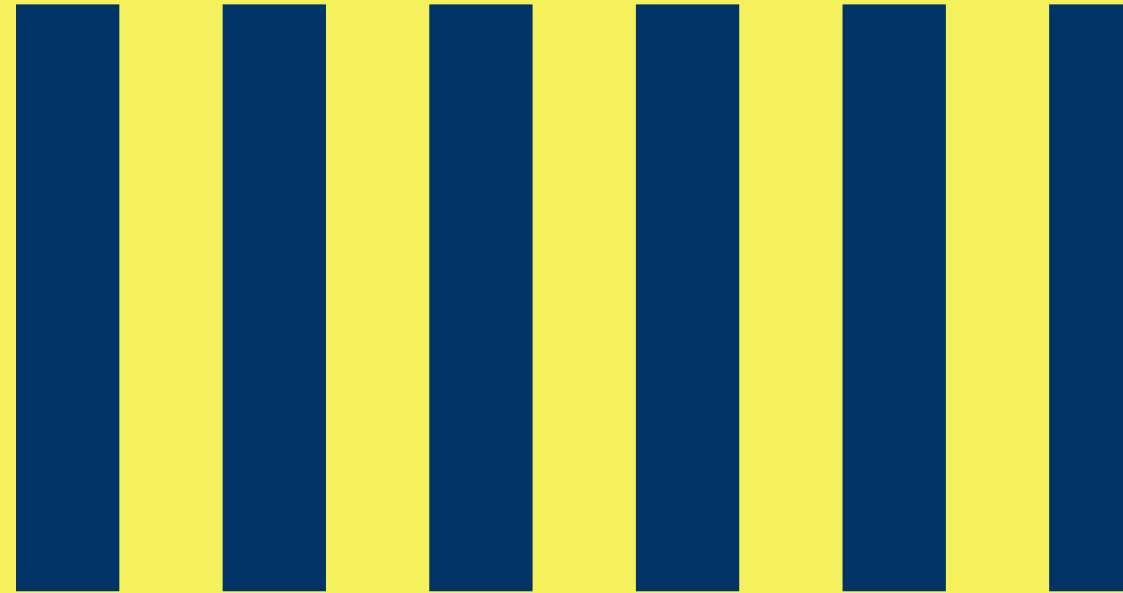
Key first step

A review of current involvement in projects and a gap analysis should be carried out by Network Rail. This should be presented to BOPB.



Target issue (6)

Operations-led technical change



Target issue (6): Operations-led technical change



Technology changes and innovation are impacting upon, rather than enabling innovation in operational concepts. But many outdated legacy systems issues remain unaddressed.

'Technology-push' changes are impacting the way the railway is operated, rather than customer requirements and innovative operating models setting out the required direction. This can be seen in several areas such as when new technology is introduced with little regard for the practical impact on service delivery.

Too often, operators have had to take ownership of new systems and assets that don't have the required functionality to deliver to customers. Or they might have used entirely capable systems but haven't considered human factors integration and training, which in some cases has led to safety incidents.

While digital railway technologies slowly roll out, there are 'elephants in the room' to be tackled. First, solutions must be appropriate to the situation.

For example on rural regional railways solutions must cost less than and offer the operating capacity and efficiency benefits that neglected routes require.

Secondly, incentives to deliver enhancement projects may not be aligned to ensure the investment delivers the operational outcomes needed. Much greater focus is needed throughout the project lifecycle to ensure they deliver the operational outcomes necessary, not just be on time/on budget.

Thirdly, critical operational support systems are those not directly controlling trains, but they're essential for network operation and information provision. Outdated 1970s' systems 'soldier on' but not enough attention is paid to their long overdue replacement.

Target issue (6): Operations-led technical change

Target state



Whether in technological change or operating model innovation, rail operators should lead the thinking and guide it to address customer needs, in balance with (rather than driven by) technical capabilities.

Operators have the crucial task of ensuring that trains operate safely and efficiently. They must also look ahead to identify the future challenges to address demand, capacity, efficiencies and reliability, against the backdrop of a changing industry and new emerging technologies. The aspiration for new techniques and approaches must be balanced with proven experience. Operations must have the responsibility, confidence, and competence to lead and drive the detailed specification planning and implementation of these changes.

Plans to use technology must include reframing thinking and change the way we do things, rather than just replicating what we've already got with modern tools. Experience gained on pilot rollouts of new technology need to be shared effectively.

Understanding, architecture and manipulation of operational data and systems should be developed and respected as disciplines in their own right.

Steps towards target state

Net Ops 1 progress

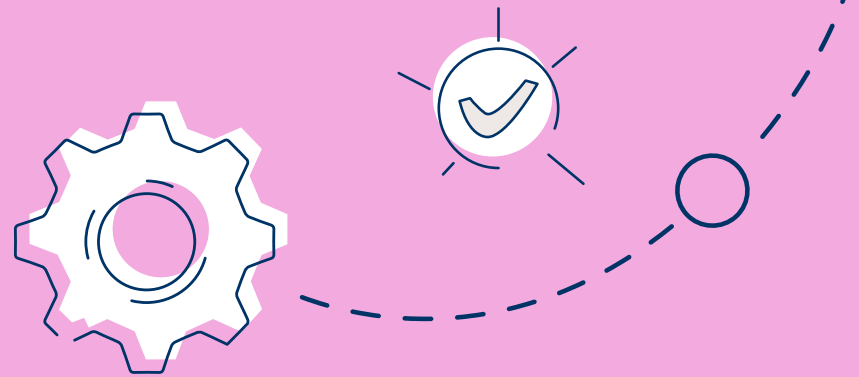
Work is underway to identify opportunities for improving the role of the Project Operations Interface Specialist (POIS) role in Network Rail. Best practice is also emerging on projects such as the East Coast Main Line Digital programme where a whole industry team approach is taken to scoping of new technology such as European Traffic Control System (ETCS).

Target issue (6): Operations-led technical change

Recommended implementation steps	NR	TOCs/ FOCs	RDG	IRO	BOPB
Continue to implement the actions in the Net Ops 1 requirements “Infrastructure development and technology change”.	A	C	I	I	I
Provide the resource and expertise to lead for operations in the development of innovative and appropriate new technology solutions. Operators to have a key influence on system acquisition and deployment.	A	R	I	I	I
Deploy the central RDG structure to facilitate knowledge sharing on pilot implementations of ETCS, traffic management systems (TMS) and other digital railway technologies, packaging up areas of knowledge e.g signaling and train operations, planning and control systems etc.	R	R	A	I	I
Deploy the central RDG structure to facilitate knowledge sharing on first implementations new rolling stock fleets and types and their digital technologies to ensure that human factors and operability integration lessons are correctly shared.	C	R	A	I	I
Work with IRO and other training providers to develop operational data architecture and manipulation as a skill set with an appropriate certification to support it.					

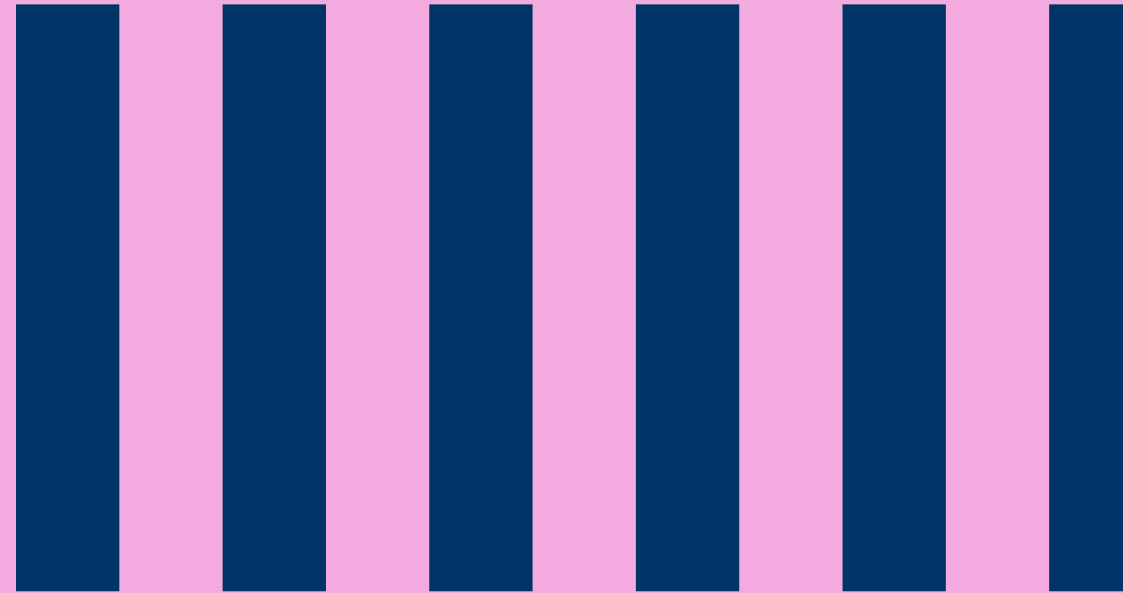
Key first step

Network Rail will review the status of Net Ops 1 requirements around “Infrastructure development and technology change” and work with RDG to establish a knowledge sharing pilot. As part of the scoping of GBR and bringing the industry closer together, plans should ensure adequate operational resources are provided to be involved in project development.



Target issue (7)

Freight operational opportunities





Target issue (7): Freight operational opportunities

**i**

The industry needs to embrace opportunities to improve freight operations, which is growing due to sustainability initiatives.

There is real demand from rail freight users to increase their usage of rail's heavy-shifting capabilities. Freight by rail helps reduce carbon emissions, improves air quality and reduces road congestion, while supporting post-Covid-19 recovery and economic growth.

The potential of rail freight is being constrained. This is partly down to the current approach to operational innovation and delivery. Not only is there a lack of strategic thinking for freight, but some operating teams have forgotten what the existing network capability and the existing rules can deliver. Looking ahead, the industry needs to develop the intellectual and practical ability to stimulate innovations in new freight service operations. The route to carbon net zero will rely on expansion of freight delivery and the industry can't afford to wait for additional infrastructure to make it happen. Focusing on strategic freight aims would enable a better freight service. And allowing use of the full capability of rules and network infrastructure available would encourage operators to see opportunities to deliver this.



Remember freight has to be far more responsive to its customers than passenger operations. The local operations teams are much closer to the customers in yards and termini.



Target issue (7): Freight operational opportunities

Target state



Freight operational innovation and change will drive economic, social, and environmental benefits at the heart of the railway.



Operators will be better at driving efficiencies such as faster terminal turnarounds, wagon utilisation, trainload productivity, more dynamic approaches to timetabling and closer attention to the drumbeat of performance which freight customers rightly demand. Where new methods of operation, marshalling and shunting are required, they'll be devised with the processes of risk assessment, refinement and approval. This facilitates and promotes safe punctual operation.

Recommended actions



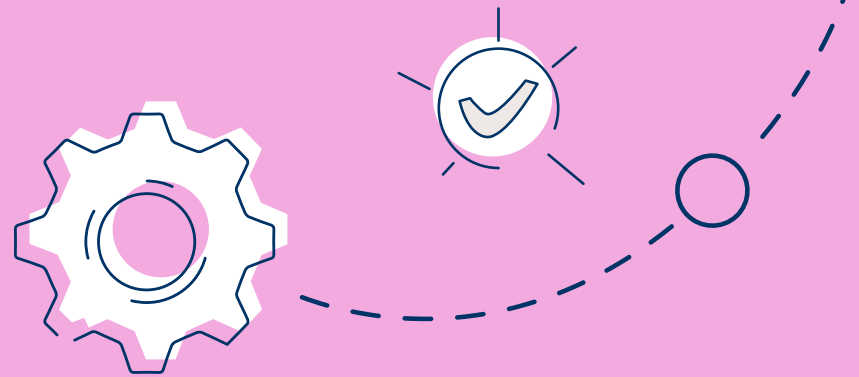
A programme of actions to accelerate responsiveness to freight operational needs will be implemented to maximize the potential of freight operations on the network.

Target issue (7): Freight operational opportunities

Recommended implementation steps	NR	TOCs/ FOCs	RDG	IRO	(BOPB)
Ensure each Network Rail route/region has appropriate resources in allocated or dedicated to the business of rail freight.	A	C	I	I	I
Led by FOCs, a process of learning and education including placements and secondments amongst IM and FOC managers.	A	R	I	C	I
Building on Net Ops 1 infrastructure change recommendation, ensure future freight considerations are properly included in projects for example through enhancement of the Possession Operation Interface Specialist (POIS) role.	A	R	I	I	I

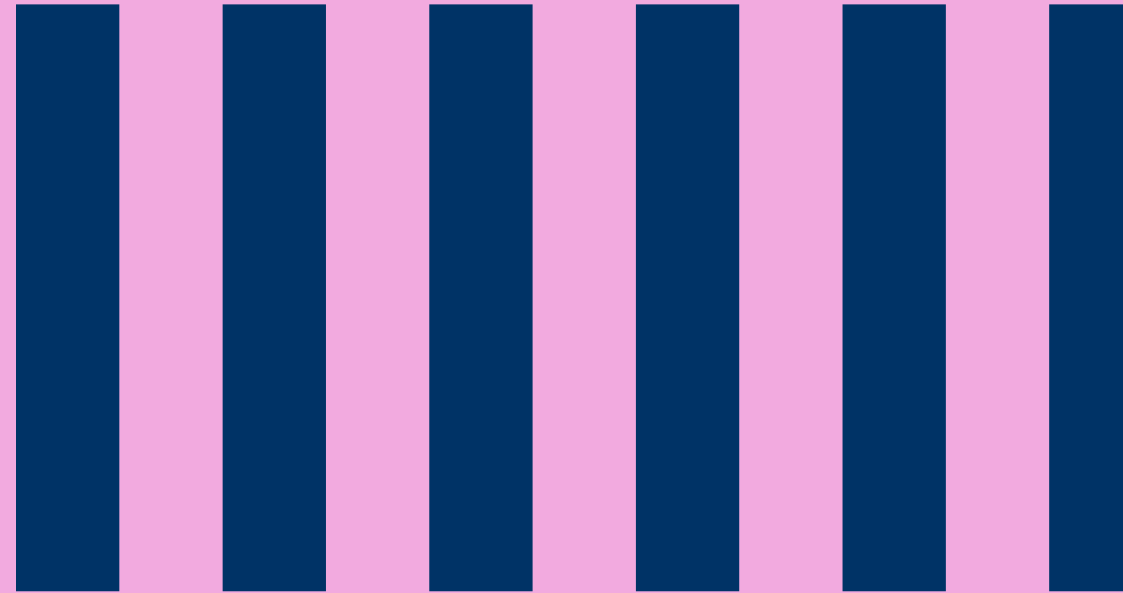
Key first step

Network Rail should identify any further improvements needed to incorporate freight considerations into projects, with the POIS role and involvement of freight operators being key to the success of this process. Whilst Net Ops 1 didn't contain a freight specific section, many of the recommendations can offer improvements in this area. Network Rail should include freight in its thinking whenever better operations are being considered.



Target issue (8)

Agile operations






Target issue (8): Agile operations

**i**

Opportunities exist to introduce whole-systems operational skills and practices for the benefit of customers. These opportunities can drive more effective oversight of daily operations and create a more agile response to concerns - particularly in geographical areas where mutual aid and assistance can generate faster, better and safer outcomes for customers.

While not voiced by all of them, some contributors firmly believe that customer-focus in a post-Covid railway requires shared fresh approaches to the management and leadership of rail operations in more agile ways. Both across the railway undertaking and infrastructure manager boundaries.

Segregation of operations across different areas of the organisation, and concentration on specific aspects of real time operational delivery, has led to a poor ability to act quickly on organisation-wide issues. By adopting new approaches, particularly in remote regional routes, we can resolve issues more quickly and efficiently.



Successful implementation of systems changes on the railway is about the pace of introduction and people understanding the purpose of the change.



Target issue (8): Agile operations

Target state



New agile operating methods to delivery better services to customers.

Rail operations leaders should be enabled, equipped and empowered to act across organisational boundaries to extract the best possible performance for customers, especially in remote environments. This is a logical step in ensuring effective benefits from collaborative working.

Particularly in remoter geographic areas of the network, the response to disruptive operational incidents could be improved by introducing new skills and a collective desire to get the 'railway moving again'. There will be issues of legal, competence management, cost/benefits, practicalities and liabilities to solve. But the goal must be to generate better customer outcomes, regardless of nominal roles.

Recommended actions



The industry should invest in research and development into new and innovative ways of operating the railway better.

Target issue (8): Agile operations

Recommended implementation steps	NR	TOCs/ FOCs	RDG	IRO	BOPB
Undertake a review of decision making across operational boundaries and develop a gap analysis.	R	R	I	I	A
Develop a plan based on the gap analysis, to deliver improved decision making across organisational boundaries.	R	R	I	I	A

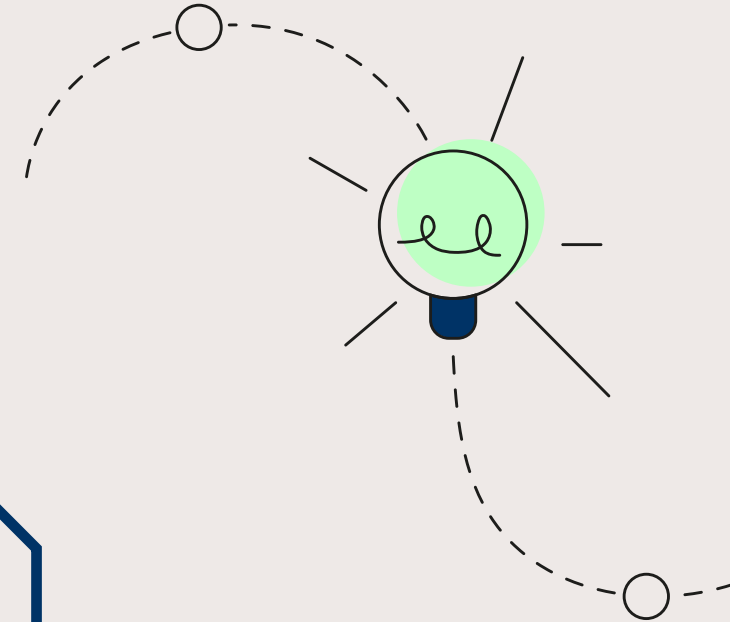
Key first step

Using existing structures for collaborative working, a review of cross-boundary decision making capability should be undertaken by the industry. This work could be sponsored and co-ordinated by the regional performance boards.

Next steps



The effects of the Covid pandemic and the 'Williams-Shapps review' will drive multiple changes to the rail sector.



Driving future operating strategy

The effects of the Covid pandemic have had a big impact on society and the economy. They're likely to trigger long-lasting changes in travel demand, commuting patterns and the freight market. New contracts have replaced franchise agreements and operators have had to adapt to a very different operating concept.

On the other hand, the rail industry's response to these impacts has shown opportunities, hidden resilience and capabilities. For example, in 'keeping freight moving' and in getting key workers to work in the healthcare and public services sectors. We now have a better understanding of the relationship between capacity and delays. And there has been a highly-flexible response to required changes in timetables in short timescales.

Following publication of the Williams-Shapps in 2021, impacts are being assessed in order to form comprehensive action plans. Once these impacts are known, it's vital that a prompt and comprehensive plan of action is implemented to address the operational implications. An inevitable part of this change process will be developing a better balance between the number of trains, journey times, calling patterns and passenger demand.

Operations knowledge and experience should be central to this. Swiftness is essential to sustain and drive forward the value that rail offers to the economy and society and to restore confidence and positivity.

The rail sector must embrace the changes driven by the Williams-Shapps review and the post-Covid economy and implement the necessary operational changes to create the new future operating states.

Driving future operating strategy

During 2021, the industry will develop an agreed action plan and make a 'hot start' to implement the changes required to the current operating concept.

This plan will need to be developed and implemented at the same time as sustaining and accelerating the recovery from the effects of the pandemic. Our focus is on restoring customer confidence in a resilient, sustainable and healthy rail system.



It isn't known at the time of writing what shape this might be. But it's likely that existing structures and inclusive 'consultative' approaches may need to be supplemented with rapid action and deployment.



The challenge of delivering a strategy in the rail industry should not be underestimated; new tools, processes and technology support improvements and people are pivotal. We need leaders at all levels of the industry to act as advocates for this strategy, drive change and promote innovation within their organisations. It is critical, now more than ever that we have a common vision for Operations within the rail industry which this strategy sets out to address.

The way ahead

**i**

Operations has a once in a generation opportunity to reshape itself as we emerge from the impact of the Covid pandemic and respond to the Williams-Shapps review.

Driving future operating strategy

The effects of the Covid pandemic have had a big impact on society and the economy. They're likely to trigger long-lasting changes in travel demand, commuting patterns and the freight market. New contracts have replaced franchise agreements and operators have had to adapt to a very different operating concept. The need to deliver a joined-up approach to operations has never been greater and this can only be achieved if we accept and rise to the need to change.

The rail industry's response to these impacts has already shown opportunities, hidden resilience and capabilities. For example, in 'keeping freight moving' and in getting key workers to work in the healthcare and public services sectors through more responsive ways of working cutting through organisational boundaries.

We now have a better understanding of the relationship between capacity, operational practices and delays which mean we can take more informed decisions in the future. And there has been a highly flexible response to required changes in timetables in short timescales.

The Williams-Shapps review has set further triggers for change. Operations needs to play a full part in responding to these and is central to delivering a more joined-up approach to how we run the railway for the benefit of passengers and freight users. Operations knowledge and experience is central to this in creating a workforce and leadership teams who operate the network, based on a broad understanding of how each element fits together. Acting quickly is essential to sustain and drive forward the value that rail offers to the economy and society and to restore confidence and positivity.

The way ahead

This strategy will be owned by the Better Operations Programme Board on behalf of the industry. But it will require the ongoing commitment of Network Rail, TOCs, FOCs, IRO and most importantly the managers, planners and frontline staff that work so tirelessly to deliver the network our customers and stakeholders demand.



The rail sector will be able to embrace the changes driven by the Williams-Shapps review and the post-Covid economy. And to implement the necessary operational changes to create the new future operating states.

During 2021, the industry will develop an agreed action plan and make vital first steps, as outlined in this strategy, to implement the changes required to the current operating concept.

This plan will need to be developed and implemented at the same time as sustaining and accelerating the recovery from the effects of the pandemic. Our focus is on restoring customer confidence in a resilient, sustainable and healthy rail system. These plans will evolve over time, but the key will be to focus on delivering the high-level strategic aims as set out in this strategy.

The way ahead

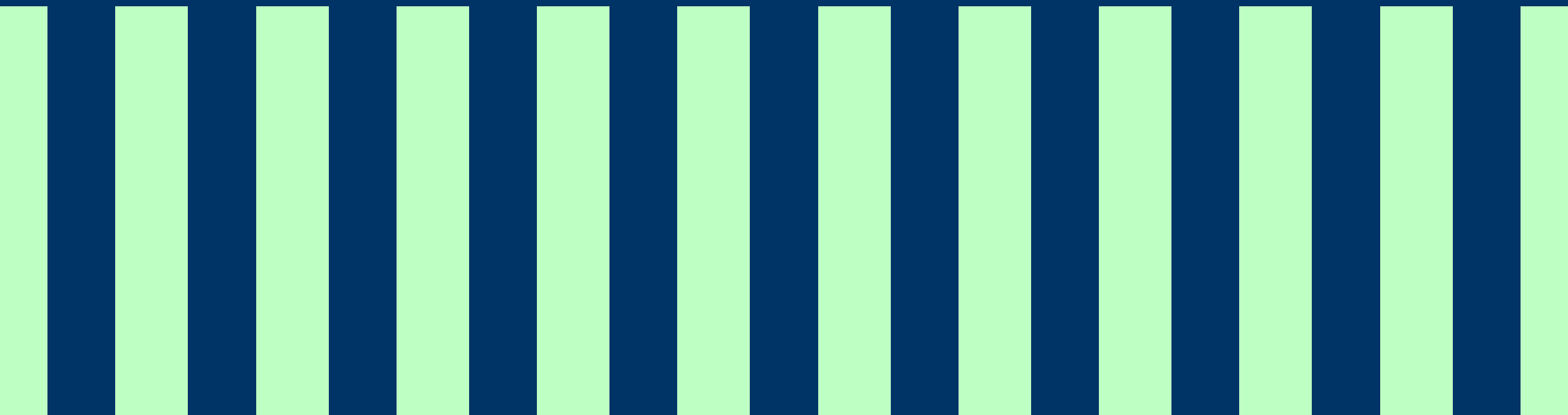
A series of implementation principles have been developed to assist in managing the rollout of Net Ops 2. Delivery of the target states set out will take a number of years and likely to happen whilst the industry adapts to the requirements of Williams-Shapps. Whatever the structures, it's for the leaders within operations to ensure that we maintain momentum to make the changes that are so clearly needed.

For more information, please email NetOps@networkrail.co.uk



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We have an opportunity to drive a better future for the operations function, that creates more fulfilling and effective roles and structures to deliver a better service to passengers and freight customers. To do that, everyone in operations needs to work to create a railway that works effectively together across boundaries and ensure it works as a fully joined up system.



This strategy has been created in joint partnership across the railway industry