

# Investing in the Future

Choices for Scotland's Railways 2019 and beyond



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# Foreword

Scotland's railway is continuing to develop and expand. A major programme of investment – funded by the Scottish Government – will be delivered between now and 2019.

This investment in both infrastructure and rolling stock, building on the success of both the Borders Railway and Airdrie-Bathgate projects, will permit passenger services to be significantly improved across Scotland in the coming years. The market for rail in Scotland that has grown significantly: passenger rail demand in Scotland has doubled over the last 20 years and although there is uncertainty about future demand, current forecasts reinforce the need for continued investment.

Meanwhile, the rail freight market is continuing to adjust to significantly changing market conditions, with growth in containerised traffic partially offsetting the sharp decline in coal traffic. Ensuring that this adjustment in freight markets can be accommodated is a priority for both freight operators and Network Rail, as they are important for supporting sustainable economic growth in Scotland.

The railway in Scotland faces significant challenges. Supporting the Scottish Government's priorities for economic growth and development is essential to provide a prosperous and sustainable future for Scotland. The industry has to demonstrate that it is making best use of the resources available to it, as well as developing its approach to reflect innovation, best practice and partnering with government and stakeholders to optimise the use and development of the system. This should be underpinned by an approach which puts the needs of passengers and freight shippers at the heart of the industry, building on the work already underway to better understand the needs of customers.

The aim of this document is to support the Scottish Government and other funders in making decisions around the future of the railway. It recognises that there are ongoing changes and challenges to the industry, not least around project development and delivery, and sets out how the rail industry is working together and with government to address these issues.

The timing of the document reflects the industry's ability to inform the development of the Scottish Government's strategy and policy, and as such sets the scene for the Rail Delivery Group's Initial Industry Advice (IIA) which is expected to be published in early 2017.

The industry hopes that the document will be a starting point for discussions with the Scottish Government and the public about the outcomes it wants the railway to support in the future and the trade-offs that will be required to achieve them in a way which is both affordable and which delivers strong value-for-money.

The document also sets out a number of areas that the industry will explore more fully in the IIA and work with government to support its strategic priorities. This will inform Ministers' High Level Output Specification as well as their development of policies. These include:

- Identifying opportunities for development and investment in areas and markets where rail is best placed to support overarching government outcomes
- Prioritising investment in those markets where rail has the potential to increase its market share significantly
- Taking advantage of Network Rail's programme of renewals to minimise the cost of rail enhancement proposals
- Identifying potential constraints and trade-offs that are likely to exist on the network
- Aligning strategic choices in an ongoing planning framework that delivers affordable outcomes and makes best use of resources
- Preparing for likely developments in cross-border services following the opening of HS2.

The key to delivering a strong, deliverable rail strategy will be for both the Scottish Government and the rail industry to build upon the collaborative approach that already exists in Scotland, most recently demonstrated by the Scotland Route Study.

Scotland's railway is well-placed to contribute to both internal and cross-border markets. Setting out a long-term context for managing and developing the network will enable their potential to be realised and continued success to be achieved.



Jo Kaye

Chair, Planning Oversight Group, RDG  
Director, Network Strategy and Capacity Planning

# 01

## Supporting Scotland's success

### Context

**An efficient transport network is essential in delivering a prosperous Scotland, supporting inclusive, sustainable growth across the country. The Scottish Government published its Economic Strategy in 2015, and is currently working to develop its infrastructure priorities for the future to make this vision a reality. The Scottish Government has announced its updated National Transport Strategy, which underpins its strategies and policies, including the High Level Output Specification (HLOS), for the rail industry. Taken together, these documents will set out how transport can contribute to delivering this vision, and what rail investments and outputs the Scottish Government intends to support to ensure that rail plays the role expected of it.**

This document sets out rail's potential to support the Scottish Government in developing its priorities. It sets out the issues that government and other stakeholders should consider in planning rail investment, and the implications that choices could have on the overall cost and affordability of the railway in Scotland, including options for funding the railway.

It builds upon both the long-term planning already underway in the rail industry and the broader policies the Scottish Government is pursuing and reflects the industry's view on opportunities for the future, including the views of the national supply-chain.

Delivering the best outcomes for Scotland will require clarity and commonality of purpose across the industry. While recognising that the railway is a mature industry, there will be opportunities to deliver innovative solutions that improve services and reduce the costs of maintaining and expanding the network. Working together, the rail industry in Scotland will continue to engage and identify opportunities to deliver better outcomes for passengers, freight customers, funders and the wider community.

The 2018 Periodic Review, principally focused on Network Rail, was started by the Office of Rail and Road (ORR) in May 2016. The Periodic Review process expects that Scottish Ministers will specify their high level outputs for the railway for the five years starting in April 2019 during 2017. The timing of this document is intended to provide the Scottish Government with a high level summary of the key issues facing the industry in Scotland, and to identify potential ways of addressing them in both the HLOS and its future strategies for rail.

A more detailed Initial Industry Advice to Ministers is expected to be published in early 2017. This will build on and take forward issues raised here and provide further information and context to continue to inform decision making by Ministers, and integrate Scotland's priorities with network-wide choices that will support this process.

Taken together, these are designed to be a positive contribution to the development of rail policy in Scotland. The industry hopes that entering into informed and continuing dialogue will help to ensure that the Scottish Government's investment plans are targeted towards meeting its broader economic, social and environmental objectives in an innovative and efficient way.

The industry recognises the financial constraints within which the Scottish Government is working, and the impact that this will have on industry aspirations to maintain and develop Scotland's rail network in the medium term. In setting out choices that put passengers, freight shippers, funders and the wider public interest at the centre of its approach, the railway is confident that it can contribute to Scotland's future.

# 02

## Industry Background

### Supporting Scotland's economy

Scotland's rail network plays an important role in supporting the economic and social activity of the nation. Passengers and freight users benefit directly from its services, and a well-functioning network is essential to support and complement other modes of transport. Rail services connect people and businesses to jobs, education, communities and leisure opportunities; rail freight connects businesses to their customers and supports the Scottish economy. A recent report by Oxera estimated the economic value of Scotland's railway to the nation (in terms of Gross Value Added) at £670m in 2016<sup>1</sup>.

Rail has a relatively low market share across all journeys made in Scotland. Yet it is a strategically important mode of transport that can – when it is aligned and integrated with other priorities – have a dramatic impact on the quality of life and activity of the communities it serves. An efficient and sustainable railway will support a strong and prosperous Scotland, particularly when it is planned and operated in a way that is consistent with government's broader economic, social and environmental objectives and the transport markets it serves.

The purpose of this chapter is to set out the role that rail plays today, highlighting both the areas where it successfully delivers against policy and where significant challenges remain.

### Increasing passenger demand, changing freight demand

Over the last twenty years, passenger demand in Scotland has approximately doubled<sup>2</sup>.

The increase in passengers (as measured by passenger KMs and passenger journeys) reflects:

- A changing economy, with more emphasis on city centre-based service industries. For example analysis informing the Scotland Route Study suggested that between 1997 and 2014, city centre employment in Edinburgh grew by 18%
- Changing lifestyles, changing patterns of where people live and work, together with improvements to rail services, have enabled it to become more competitive with other modes, particularly on interurban routes.

This has been reflected across Great Britain, but Scottish transport policy has been notably ambitious in using rail as an instrument of wider governmental ambitions.

1 [What is the economic contribution of Rail in Scotland?](#)

2 [Scottish Transport Statistics](#)



### Case Study : Developing the wider economy

#### Borders Railway

The objective of the Borders Railway Project was to improve access to Edinburgh and other important regional markets for people living in the Scottish Borders and Midlothian. This was particularly important, because the Scottish Borders suffer from high levels of underemployment whilst labour market constraints have been identified as a barrier to Edinburgh's continued economic success. Access to Edinburgh from the south is obstructed by the Lammermuir and Pentland Hills, and the main trunk road connecting the key Borders towns to Edinburgh is congested.

The Borders Railway was developed as part of an overall strategy to regenerate the Borders region, which included investment in education, housing and tourism. It is this strategy – in which the rail line was a key component – which the Scottish Government and local authorities took forward. This reflects the Scottish Government's Economic Strategy objectives of improving the opportunities for leisure and tourism in the region, and the National Transport Strategy's objectives of improving integration, promoting regional cohesion/social inclusion and helping to promote economic growth.

The opening of the railway will help deliver the broader economic strategy for the Borders region. It is likely to take many years for the full potential of inward investment, new housing and communal regeneration to be delivered. The recent initial outcomes evaluation carried out by Transport Scotland suggests that the railway is indeed altering perceptions of the Borders region.

Of those residents of the Scottish Borders and Midlothian who had moved to the area within the last 5 years, 15% stated that the reopening of the line had been a main factor or one of a number of important factors in their decision to move to the area. Initial data on passenger demand on the newly opened line have also been positive, with demand in the first year of operation significantly exceeding forecasts, both in terms of commuting and leisure trips from the communities connected to the network, as well as opening up more of the region for travellers from Edinburgh and beyond.

Rail's freight markets have changed, reflecting developments in Scotland's economy and, in particular, the UK's energy markets. A reduced volume of bulk coal traffic has been partially offset by an increasing emphasis on containerised intermodal transport. Network Rail's 2013 Freight Market Study forecast a significant increase in the demand for intermodal freight in the coming decades. Encouraging modal shift and investing to accommodate this growth is supported by the [Scottish Government's Freight Strategy](#) published earlier in 2016.

## A devolved approach to developing transport policy

Devolution of powers from the UK Government to the Scottish Parliament has meant that the industry and the Scottish Government have been able to work as close partners. Devolution is an ongoing process, and it has enabled Government and the rail industry to work more closely together in responding to current needs, understanding new challenges and identifying future choices that will meet them.

The Scottish Government has consistently sought - through successive National Planning Frameworks, the National Transport Strategy and the Strategic Transport Projects Review (STPR) - to improve the evidence base on which transport investment is planned. Transport is an integral part of the Scottish Government's overall economic and land use strategy, and in setting out a coherent approach to addressing whole-transport system problems the Scottish Government has developed a sound foundation on which future investments can be delivered.

## Rail as an instrument of wider government policies

The Scottish Government has recognised that transport, including rail, needs to be fully integrated with other strategies supporting economic development, sustainable communities and improving access. Major projects, including the Borders Railway and the re-opening of the route between Airdrie and Bathgate, have been developed to act as catalysts and enablers to achieving balanced and geographically-diverse development.

This open-minded, measured approach has been both popular and successful as passenger numbers have generally significantly exceeded forecasts. Where evaluations have been carried out, they have demonstrated that the projects have supported and delivered against broader Government objectives.

## Remaining challenges

Successive Scottish Governments have promoted rail as an enabler of their broader economic and social policies. Ensuring that the direction of policy is clear and that Government is able to align policy and delivery in a co-ordinated way is a key theme running through this document.

Whilst rail is a powerful and strategic tool for addressing or mitigating economic and social challenges, a sustainable rail policy will acknowledge that in some areas other transport modes may be more suitable than rail for addressing local connectivity requirements.

The demands on public finances will mean that both capital and current funding



## Case Study : A Collaborative Approach

### The ScotRail Alliance

Network Rail and ScotRail are working more collaboratively and in an increasingly integrated manner under the ScotRail Alliance, following the commencement of the new franchise in 2015.

A single management team oversees day-to-day delivery of ScotRail services in Scotland, and fully integrated teams have been formed to manage:

- Operational control
- Performance
- Stations maintenance and enhancement projects.

Joint teams have been established to manage internal and external communications, stakeholder engagement, safety and sustainability and project planning and delivery. This is consistent with Ministers' vision of a better-performing, integrated network in Scotland, while also enabling efficiencies and innovation to be realised.

Improvements in all these areas are central to the delivery of the current ScotRail franchise contract which is due to run until March 2022 with a possible extension until March 2025. During this time, the ScotRail Alliance will be responsible for delivering the following improvements for passengers:

- Introduction of new trains and a new timetable for the flagship Edinburgh-Glasgow via Falkirk High service following the completion of the Edinburgh Glasgow Improvement Programme (EGIP).
- Introduction of improved rolling stock on the Shotts route and improved services and rolling stock on Stirling- Dunblane- Alloa corridors as part of the ongoing Rolling Programme of Electrification
- Introduction of a new timetable on Inverness- Glasgow/Edinburgh following the completion of Highland Main Line Phase 2 project
- Introduction of a new timetable providing additional services between Inverurie and Aberdeen and Elgin and Inverness following the completion of the Aberdeen to Inverness Phase 1 project
- Introduction of refurbished High Speed Trains (HST) and a new timetable to deliver a step change in quality of service between Scotland's seven cities.

is likely to be scarce in both the short and medium term. Developing an integrated policy framework - in a transport market where not all transport policy levers are devolved - will be essential if the nation is to make best use of current and future transport networks.

### The railway in 2019

In order to provide a context for the choices the Scottish Government and funders can make, it has been assumed that the timetable proposed for March 2019 is delivered as planned. There are a wide range of strategies and plans already in place to drive improvements across all aspects of the industry, and there are ongoing improvements to the industry outputs that will be delivered before then.

Scotland's extensive rail network requires maintaining and renewing to ensure that it is able to meet user needs both now and in the future. Improving operational performance and delivering new capacity are integral to the industry's approach. Improvements will be supported by the delivery of major projects, including:

- Delivery of EGIP
- Improvements to the Highland Main Line and the Aberdeen-Inverness corridor
- Further electrification in the Central Belt, including routes to Stirling, Dunblane and Alloa, and the Shotts line
- Introduction of High Speed Trains to link Scotland's seven cities and a recast timetable to improve journey times and optimise capacity
- New and faster trains on cross-border passenger services
- Improvements to freight capability to support the Scottish Government's freight strategy
- Clear progress on the strategy and activity required to support the introduction and development of services that will operate to and from Scotland using High Speed 2.

Continuing this programme of improvements, and embedding the improved planning and programme development processes demanded by the [Hendy](#) and [Bowe](#) reviews, will support the achievement of government's aspirations for Scotland. These will be underpinned by identifying opportunities for continuing technological and operational innovation and where there is the potential to promote wider benefits around sustainability, skills development and accessibility. Through the 'customer journey' project being led by RDG the industry has developed a more informed understanding of the needs and expectations of its customers. There are a number of initiatives underway to meet these needs and to begin to address key problem areas. Examples include the evolution of ticketing, the provision of better information and the improvement of the Passenger Assist Service enabling a more inclusive railway. Customers have



told us they want smart, easy to use tickets that reflect a retail experience offered outside rail. To meet this expectation we will move from physical cardboard tickets to ones that are stored in the cloud. This will give customers more control over the way they travel. Physical tickets will still be available but these will be based on modern barcode technology. The provision of information has improved in recent years so customers now get more consistent and accurate information across all channels but we do have some way to go to make that information richer and more timely. By the end of 2018 the industry will introduce a better, easier and more responsive passenger assistance service enabling all our customers to benefit from rail travel.

### ScotRail franchise variation

In March 2016 the Transport Minister announced details of the new timetable that will run from June 2018 as part of a 'Revolution for Rail'. This timetable will provide:

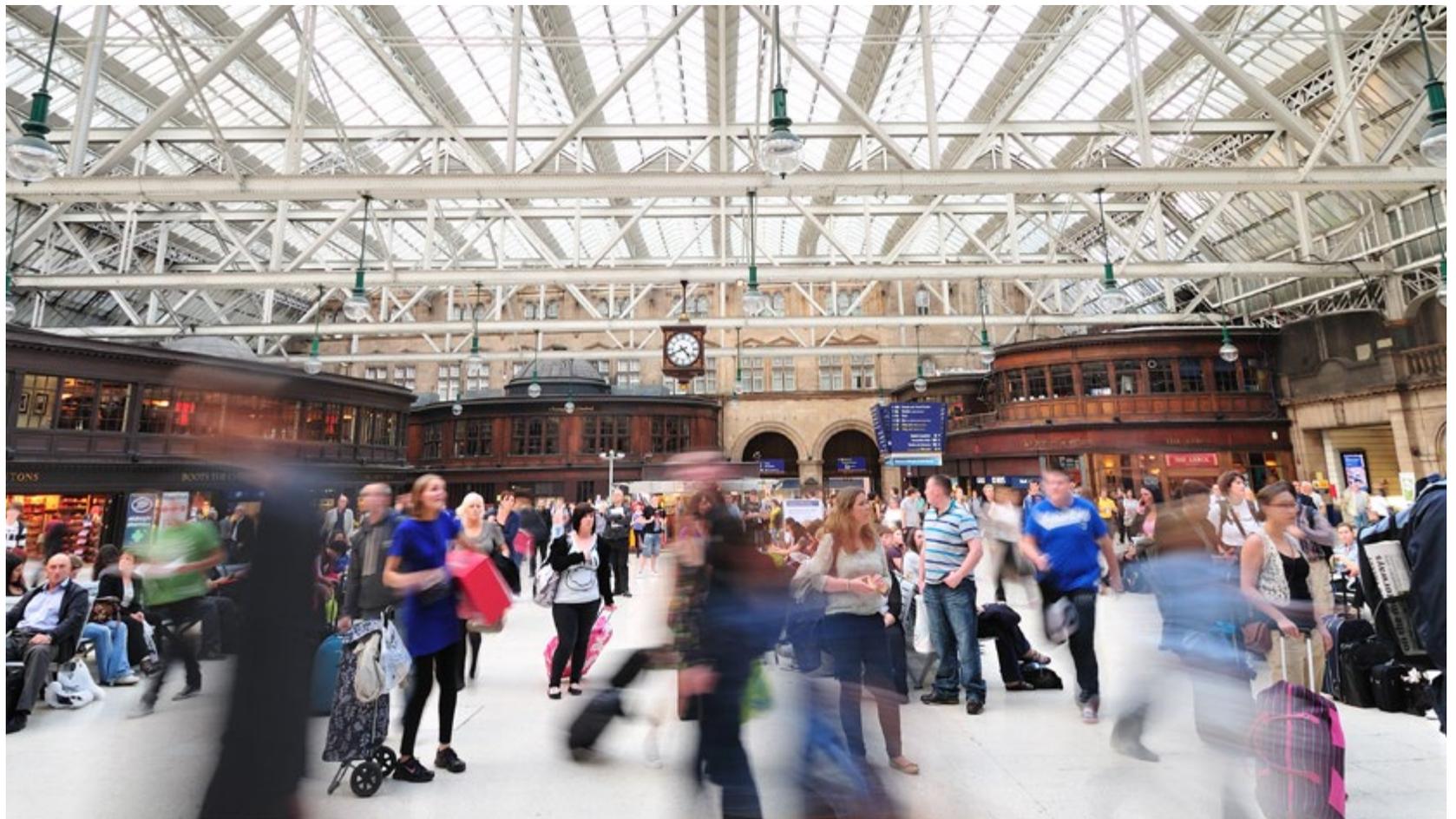
- More than 200 new services per day supported by additional rolling stock. These services will deliver a step change in rail connectivity and capacity between Aberdeen, Inverness, Dundee and Perth and their local communities
- Faster limited-stop services between Edinburgh/Glasgow and both Aberdeen and Inverness using refurbished High Speed Trains. These will take advantage of enhanced infrastructure to deliver lower average journey times than today
- Faster, more reliable electric services from Stirling to Edinburgh and Glasgow as a result of the ongoing electrification of the Scottish network
- Increased seating capacity on Fife and Borders routes.

### Anticipated capacity challenges

The Scotland Route Study identified capacity challenges for the network in Scotland. Some of these challenges will be addressed through the "Revolution for Rail" improvements, but others will require further investment if they are to be addressed.

The forecasts developed for the Scotland Market Study indicate that by 2018/19 seating capacity will be exceeded on some parts of the network. For example, trains between Glasgow and Edinburgh via Falkirk and Shotts seating will be over 80% full in the morning peak hour as will trains into Glasgow from the north-east (Dundee/Aberdeen/Perth). Rail enhancements including EGIP and the ScotRail franchise variation are currently underway to provide additional seating capacity.

Local commuter services from the Lothians into Edinburgh are also forecast to exceed seating capacity in the morning peak hour by 2018/19; the introduction of longer trains in 2018 will provide additional seating. Services terminating at Glasgow Central High Level station from both East Kilbride and the north Ayrshire coast will be at – or approaching seating capacity. This snapshot is not exhaustive, but it illustrates the challenge the industry is likely to face if current standards of crowding on the passenger network are to be maintained.



# 04

## A Vision for Scotland's Railway

### High level approach

The industry's vision for a modern, focused railway in Scotland is based around a number of key themes. These are:

- **Customer focus** – the industry has to put the current and future needs of its users at the centre of its development, recognising that delivering a reliable, safe and capable railway is the fundamental product, but that this product will be most attractive where it caters for increasing technological enablement for both passengers and freight shippers
- **Partnership** – the rail industry needs to be a reliable delivery partner to government and wider stakeholders, recognising the roles and expertise that is brought to strategic planning and supporting a wide range of government and stakeholders to meet their economic and social objectives
- **Strategic** – rail is a strategic mode of transport, and decisions taken now will have a long-term impact upon the future direction of the network. The rail industry is inherently long-term, and decisions need to be taken that reflect and support both current and future requirements of passenger and freight markets and of funders
- **Network-wide** – the future success of the rail industry is dependent on it playing its part as one element in the broader British (and European) network. Integrating the planning of the Scottish network with High Speed 2 (HS2), Northern Transport Strategy and the opportunities that these will create for improved passenger and freight services is at the centre of industry advice
- **Flexible** – existing models of funding for the railway are a product of an evolving regulatory and industry structure. Investment decisions need to be consistent with supporting wider outcomes, and need to be supported by robust engineering and economic evidence as well as an appropriate funding mechanism. Business cases will need to reflect all the impacts of improving or altering rail outputs.

### Setting strategic objectives for the railway: what is the railway for?

A key finding of the Shaw Review was the need for funders to have "clarity about [the] various roles and objectives for the railway". Getting the most out of the railway will require a long-term vision and a consistent strategy.

This is important because, as Figure 1 illustrates, there is a trade-off at a high level between the volume of trains on a network, the mix of train services that can be accommodated and the reliability that the network can deliver for a given cost and available capacity.

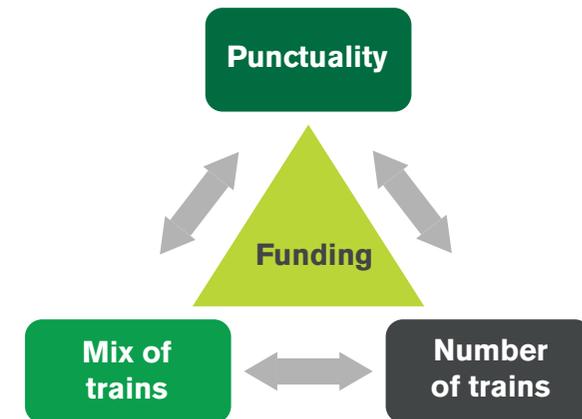


Figure 1: Illustration of rail policy trade-offs

Having an overall vision and strategy for the network should not prevent government taking a more specific corridor-by-corridor view, depending on the type of markets served and the policy objectives of the funder. However, there needs to be an acceptance that trade-offs will exist between both the outputs that the railway can deliver and the level of funding that will be available.

As with all modes of transport, the benefits of rail are proportionate to the number of people who use the services, where they use them and why they use them. Rail as a tool of public policy will be most effective where it serves markets effectively and has a comparative advantage to other modes.

### Playing to rail's strengths

Railways are extremely effective at transporting high volumes of people between specific locations relatively quickly and enabling the bulk movement of goods. They are also a valuable tool of transport policy where rail is able to compete effectively with road, and in doing so help funders to address road congestion on particular corridors. The ability of rail to compete effectively with road will vary over time, depending on changes to the level of road congestion, and on whether investments have been made to increase trunk road capacity. Where road investments are planned, government needs to consider the allocation of resources (rail versus road) to address the most pressing problems.

In an economy that is increasingly driven by office-based employment in our city centres, urban rail networks ensure that people can access employment and employers can attract a high quality workforce. Where families and social

networks are increasingly dispersed, and where businesses are increasingly knowledge-based, a well-developed national rail network can help to sustain high quality lives and high quality businesses.

Government needs to set out its priorities for rail in the context of its overall objectives, including recognising that there will be choices and trade-offs that can be made to deliver the best value from the network. Making best use of current capacity is an important part of developing future strategy. In some cases there may be opportunities to review what outputs are specified currently, and whether they best meet the needs of current and future users.

It is for funders to allocate the resources to the railway that they believe to be appropriate; it is the responsibility of the industry to provide relevant evidence to support funding decisions so that government is able to base its decisions on an informed basis.

**The railway: strategic enabler for customers and funders**

The question of whether the railway provides good value-for-money – especially when compared with other transport modes – rests on the social and economic priorities that governments have and on the broader policies they choose to pursue. Understanding the strategic direction of government, and the transport implications of its policies, is therefore central to the development of the industry’s strategic thinking.

The clearer that this strategic direction is, the better the industry will be able to work with funders to mould rail services that support the attainment of government objectives. An open dialogue between government and the rail industry will also help the government to develop a suite of outputs that are consistent with these objectives.

The Scottish Government’s Economic Strategy is vital in this respect: the rail industry is working with the Scottish Government to achieve a common understanding of the transport implications of delivering the strategy, and advising how it should drive the future direction of rail policy and investment in Scotland.

The industry has identified the following as key outcomes:

- Providing a safe and reliable railway system
- Delivering outputs that are affordable for those people and businesses that choose to use it and for funders
- Providing the correct balance of journey opportunities to complement rather

than compete with other public transport modes and attainment of broader government objectives

- Developing train services and timetables that adapt and evolve to meet current and future needs and make best use of the railway network
- Ensuring that these outcomes can take account of change and can remain accountable to the bodies and people that fund them.

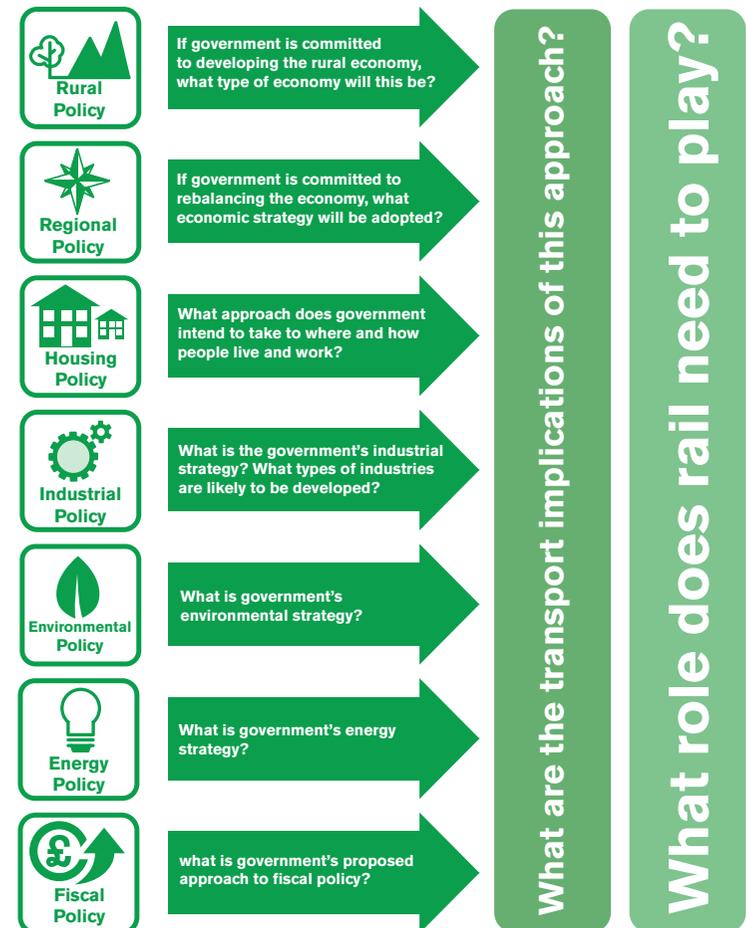


Figure 2:- Integrating rail development with government objectives

# 05

## Turning a Vision into a Strategy

### Areas of focus

The vision outlined in previous chapters is the starting point against which the industry's strategy is being developed. The following section sets out the mechanisms by which the industry believes these high-level aspirations can be translated into meaningful policies and investments:

#### Focus on delivering outcomes

Rail, as all other transport modes, is a means to an end: The Scottish Government's view of its high-level priorities is set out in its Economic Strategy and in other documents.

The challenge for the railway and for those that invest in it is to ensure that the railway is able to support government objectives in a way that is good value-for-money. Setting challenging but achievable outputs is clearly essential to incentivise the industry appropriately. However, where the linkage between outputs and outcomes is unclear there is a risk of not delivering the optimal solution that provides the benefits anticipated at the outset.

This is particularly true when it comes to planning enhancements to the network. The appetite for new and improved rail services is often reflective of the requirement for communities to have improved transport connectivity. However, providing additional and enhanced rail services may be an expensive solution, and funders should ensure rail is the most effective way of meeting their policy objectives.

Transport Scotland's Scottish Transport Appraisal Guidance (STAG) process provides a sound framework for assessing proposals against policy objectives. We recognise the work that the Scottish Government is undertaking to ensure that STAG reflects and includes the growing evidence base on estimating the wider economic impacts of transport and the industry welcomes the opportunity to work with government to identify and develop good practice in this area.

#### Focus on optimising investment

Railway assets tend to have long lives and can be expensive to both deliver and maintain. Ensuring that enhancements to services in Scotland take advantage of infrastructure renewals and rolling stock availability/allocation will – where assessed properly – underpin a successful investment strategy. This can also mitigate any disruption to current users of the network and reduce industry costs.

The capacity of the industry and its investors to plan investment in this way depends on the industry itself being able to present reliable evidence on the condition of its assets and on an overall industry strategy being developed by both funders and the industry for rolling stock provision.

The recent Scotland Route Study sets out the industry's current thinking in these areas. It highlights the network constraints that are likely to emerge over the next 30 years and the investment choices that funders will have to make if they choose to address these constraints. The Scotland Route Study is supported by an extensive review of different markets for rail that exist in Scotland. A copy of the Route Study is [available here](#).

Efficient planning of investment also requires an appropriate level of certainty to exist around funding. The industry is working with both the Scottish and the UK Governments to support an effective and integrated approach to planning.

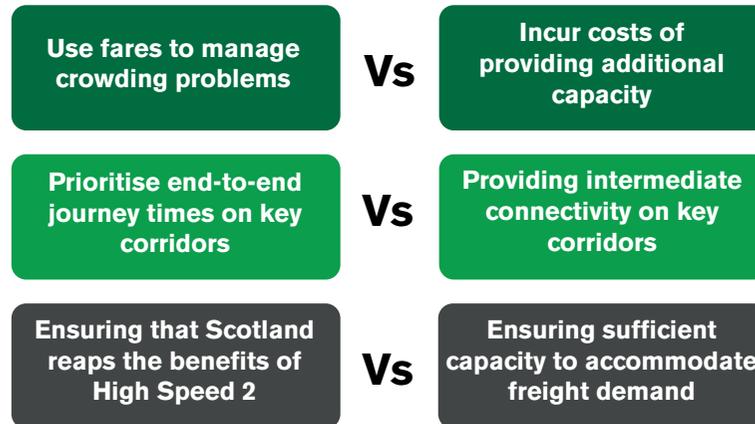
#### Focus on trade-offs when planning investments

The economic and social outcomes that the Scottish Government is seeking to achieve depend on specific levels and types of connectivity being provided. Delivering this in an environment where both capital and current expenditure are likely to be highly constrained will require funders to prioritise and phase the delivery of strategic outcomes.

The industry needs to be able to provide an evidence base that identifies potential choices at an early stage so that funders are as well-informed as they can possibly be on the decisions they are making.



These trade-offs may include:



A whole-system view is required if the existing network is to continue to operate effectively and the optimal enhancement projects are to be developed and delivered.

### Developing a strategy that maximises co-operation and innovation

The Scottish Government's investment in new and improved services, infrastructure, and stations has supported demand growth over the past 10 years. Significant growth is expected to continue over the medium to long term, and the industry backs the approach that has been taken by the Scottish Government to support the development of rail markets.

The core function of the rail industry is to ensure that specified levels of connectivity are maintained at a reliable level. This will require a continuing commitment to addressing engineering and asset management challenges.

It will also require a commitment on the part of all those who work in the industry, as well as funders to agree on a way forward to ensure that technological advances are incorporated into ways of working whilst ensuring that the industry retains a well-motivated, highly skilled workforce.

A focus of the ScotRail Alliance is the delivery of more co-ordinated train control and performance management. This approach, which focusses on identifying performance problems at source and moving away from a delay attribution culture, will be central to improving how the existing network operates and improving existing and potential passengers' travel experience.



The recent experience of both domestic and cross-border freight has been challenging, both in terms of the decline in electricity supply industry coal traffic and network disruption. However, there will be future opportunities to achieve modal shift and traffic growth on the network (although cross-border capacity is a particular challenge).

### Maintenance and Renewals Policies

The current approach to regulating Network Rail divides the company's key activities into enhancements, operations, maintenance and renewals. In practice, the delineation between some of these activities is not always clear: purely like-for-like renewals are rare, as technology advances and Network Rail adapts to extreme weather events, standards and traffic both change. There are also trade-offs between maintenance and renewals: a more intensive maintenance regime may enable a renewal to be delayed so it can be carried out at a less disruptive time or co-ordinated with network upgrades.

Maintenance and renewals policies have evolved to ensure that these decisions are made in a coherent way, with an efficient infrastructure manager making choices that identify opportunities for improved outputs and greater efficiency. These policies are central to the industry's vision of continuous improvement in this area.

However, the diverse nature of the railway in Scotland – and the challenges it faces from extreme weather events - mean that policies have to be applied and evolve in an intelligent and pragmatic way to ensure the continuing sustainability of the network.

### Operating Strategy

Network Rail is continuing to identify opportunities to reduce its annual operating costs in Scotland beyond that which its current asset policies could achieve. The strategy seeks to improve the efficiency of frontline operations by migrating operational management from disparate locations to a single Rail Operating Centre (ROC) located in Glasgow, supported by Edinburgh, Inverness and Banavie Signalling Centres.

## Case Study : A smart approach

### Edinburgh Suburban Enhancement Programme

This line provides a strategic link between the East Coast Main Line (ECML) and West Coast Main Line (WCML) for freight, passenger and Empty Coaching Stock (ECS). It is currently of limited capacity, low linespeed and is largely non-electrified.

Major upgrading of the lines through Edinburgh Waverley and Haymarket, to support future growth in the freight market will be both expensive and difficult to implement in such a historically significant and protected area. Enhancing the Edinburgh Suburban line and associated routes will enable the core cross-Edinburgh route to operate more effectively as well as increasing overall network capability and flexibility. It therefore supports the Scottish Government's ambitions to improve both cross-border passenger and freight connectivity.

The Scotland Route Study developed a 10 year programme of enhancements and one of its "Choices for Funders" included the Edinburgh Suburban Enhancement Programme. The programme includes a number of discrete infrastructure improvements that will build on the gauge enhancements and the Shotts line upgrades which will be delivered by 2019. Prioritising the upgrades at the right location and time will maximise the benefits of these investments.

Whilst many of the individual infrastructure interventions would deliver benefits independently, the impact of delivering the whole package will be greater than the sum of the individual parts in the programme.

The customer outcomes to be achieved by delivering the entire enhancement programme include:

- Freight and Passenger Connectivity – Enable the operation of electric freight trains running from the ECML to Central Scotland avoiding Edinburgh Waverley, releasing capacity across the Great Britain (GB) network which can be used by either freight or passenger trains
- Resilience – Enable electric passenger services, electric freight and rolling stock positioning and depot moves to divert via the Edinburgh Suburban line during engineering works and periods of service disruption, as well as supporting faster return to normal operation
- Performance – Enable the end-to-end electric haulage of freight services and improved integration with Millerhill depot, both of which will drive improved performance across the Central Scotland network

The strategic nature of this programme will deliver benefits across the Scotland and GB rail network.

### Developing a long-term rolling stock strategy

The rail network operates as an integrated system, irrespective of the institutional and contractual arrangements within the industry. Ensuring that rolling stock procurement and management continue to strike an appropriate balance between forecast demand growth, passenger experience and whole industry affordability will need to be included in a long-term strategy for Scotland's rail network.

This needs to reflect both current and potential requirements for capacity, taking into account opportunities that emerge from across the GB network. The industry believes that rolling stock planning needs to be ongoing and transparent to be integrated into wider strategic and project developments. The industry's Long Term Rolling Stock Strategy is the starting point on which such a strategy can be based, and it is updated annually.

Any Scotland-specific rolling stock strategy will need to be integrated with planning for and delivering the provision of appropriate depots and stabling facilities, especially if future electrification schemes are to be planned and delivered effectively and affordably.

### Demand Management

As rail network capacity is relatively inflexible, the industry's ability to manage passenger and freight demand is important, and has significant implications for the future financial sustainability of the network.

Capacity constraints are most apparent in peak periods, and the ability of the industry to work with government and funders to balance the provision of infrastructure and services to meet wider needs is likely to be important in the future for both urban and long distance services. A review of how passengers pay for their journey, including the potential for greater flexibility released by the roll-out of smart ticketing, in the context of overall funding, might also enable the industry to address the significant geographical fare anomalies that exist across the network.

### Developing a strategy for planning major investment

For the railway to play its part in supporting the overall economic strategy for Scotland, the industry and its funders need to reach a common understanding of the challenges the industry is likely to face in the future and the obstacles that could prevent funders from meeting their objectives.

Unlocking the potential of the network is best delivered through a consistent and continuous approach to planning. Opportunities and synergies are identified throughout the development and delivery of projects, but the greatest potential exists at an early stage in the process. A "pipeline" of proposals being developed, resourced appropriately, can support delivering best value and ensure that future improvements are optimally-timed and integrated with other industry planning.

The scope and complexity of the rail network requires integrated approaches to strategic development. Funders and stakeholders need to take this into account when proposing investment and improvements. For example, an additional service introduced in one part of the country can have an unintended, though tangible, impact on overall network performance, while disruption costs caused by construction works can also undermine the overall business case for investment.

In contrast, investing in rail capacity in one part of the network can also unlock opportunities across the network and enable benefits to be realised in different markets and different geographical locations.

Recognising this complexity is important: the rail network is capital-intensive, and infrastructure and rolling stock assets are expensive. Having a clear specification and business case at the earliest stages of project development is important in taking forward proposals that are both robust and deliverable. The case needs to be evidence-based within the context of wider national and regional strategies. It also underlines the importance of allocating an appropriate level of resource to early stage development.

## Case Study : Supporting economic growth

### Glasgow Central Station - Capacity Challenges

Glasgow Central Station is Scotland's busiest station. The station is located at the hub of a number of busy commuter routes into Glasgow from the south and west of the city. In addition, the station is the destination for many long distance Anglo Scottish services and will be Glasgow's access point for services running on HS2 when it opens.

The West of Scotland's economy is still adjusting to a long term decline in its manufacturing and primary industries, with a focus on developing a more city centre and service-oriented economy. Ensuring that the city is able to tap into (and support the development of) labour markets in Glasgow and surrounding areas is a key challenge for the Scottish Government and for local authorities as they seek to improve the productivity of the Scottish economy.

The Glasgow and Clyde Valley City Deal is one mechanism for addressing this productivity gap. Glasgow City and Renfrewshire Councils are exploring the possibility of improving connectivity between Glasgow Central and Glasgow Airport funded through the Glasgow and Clyde Valley City Deal. In addition, the Conditional Outputs identified in the Scotland Market Study reflect the aspiration of the Scottish Government and local authorities to improve connectivity into Glasgow from the south and west of the country.

Accommodating additional services into the station will be challenging. The Scotland Route Study suggests that opportunities to improve the operation of the station could be explored in the short term, including alterations to current timetables and investment in more capacity. However, major capacity interventions at the station are likely to be needed to accommodate longer term aspirations for more and longer trains and to improve the passenger experience.

There is a clear trade-off between delivering incremental - but still disruptive - improvements at the station and delivering the larger schemes from the outset. As schemes become larger, more complex and more capital-intensive funders need to focus on the strategic outcomes they want to achieve to ensure that they provide good value for money.

This could include considering a fundamental review of local, regional and long distance services served by the station, ensuring that these markets are served by the appropriate transport mode. This approach will ensure that the economy of the city and of the region is served in the best way possible. Either way, identifying and providing a transport system that is consistent with the Scottish Government's economic and social objectives is essential, as well as integrating the station as a gateway to Scotland's largest conurbation.



The industry considers that the best value and most effective delivery of improvement require:

- **A “package” approach** – improving strategic outcomes to reflect routes and markets in their totality when developing plans for the future. Ensuring that activity is directed towards the overall system outcome, including integration with decisions around rolling stock procurement, train service specification, station and civic realm developments, and optimising the impact of delivery on the customer.
- **Incremental development** – where major investments are planned to achieve long-term strategic outcomes for the railway, they should be planned and phased to bring forward benefits and timed to coincide with asset renewals. This ensures that future requirements for improvements are reflected in planning the maintenance and renewal of the current railway.
- **Whole-industry** – Where new enhancements are planned, these will be delivered through a combination of making use of existing assets and new investment. The interaction of infrastructure capacity and train services needs to be optimised if resources are to be employed to their best effect. The ability of the industry supply chain, and the wider industry skills base, to deliver and support service improvements is fundamental to ensuring risks are identified as early as possible and mitigated appropriately in the development process.
- **Flexibility** – The rail network’s long asset lives and high asset costs mean that investments often take a significant amount of time to develop and fund, including integration with the strategies for the current network. One of the key insights of the Hendy and Bowe reviews was that the industry should move towards a more focussed approach to enhancement projects, and that clear linkages need to be established between enhancements and the overall business case for investment. Project development timetables need to be driven by the outputs required – and what the supply chain can realistically deliver - rather than focused on the funding and specification cycle defined by the Periodic Review of Network Rail.

# 06

## Future Challenges

### Developing a common understanding between funders and the rail industry

This section sets out in broad terms the challenges that the railway and its funders will need to address in the medium term if the railway is to fulfil its roles in an effective and an efficient way.

### Understanding passenger priorities

Scotland's railway is principally used by passengers, both for internal travel and cross-border journeys. Understanding, anticipating and meeting passenger priorities is therefore crucial to maximising the benefits that can be derived from the railway, a key challenge recognised in the RDG's 'customer journey' project.

A prerequisite for expanding passenger rail markets in Scotland is to offer passengers a consistently high quality product, and the rail industry needs to be commercially incentivised to focus on this objective.

However, commercial imperatives on their own may not be sufficient: passengers need to be sure that the whole industry is focussed on delivering services that are consistent with their expectations and needs. Where obstacles exist that are likely to prevent these being met, the industry as a whole needs to work with passengers, funders and stakeholders to ensure that they are addressed in an appropriate way, including through franchise and regulatory targets. The RDG are helping to inform the government, using the customer journey project, to ensure future franchising delivers the right outcome for both the customer and the industry.

Overall passenger satisfaction in Scotland has steadily improved over the last fifteen years, with ScotRail achieving an overall score of approximately 90% in the most recent [Transport Focus survey](#), with cross-border operators also performing strongly. It is striking that although overall passenger satisfaction is high, passenger's perception of whether the railway delivers value-for-money is far less positive for both ScotRail and for long distance operators serving Scotland.

Ultimately, the challenge for the Scottish Government and for the industry will be to continue to understand the drivers of passenger perceptions of value-for-money and to respond accordingly. This will require an ongoing informed discussion between customers, the wider stakeholder community, government and the industry itself around the nature of the outputs that passengers require and how they should be prioritised. Having these discussions now will ensure that the future development of the network has a sound foundation.

### Understanding freight customer priorities

Although much smaller in scale than the passenger market, freight is integral to Scotland's rail network. Understanding the priorities of both existing and potential freight customers will be vital if rail's market share is to be maintained and expanded. As with passengers, expanding the rail freight markets in Scotland will require a consistently high quality product at a cost that is competitive with other modes of transport.

Transport Scotland's recent [Rail Freight Strategy](#), published in 2016 is the most recent review of freight customer (as opposed to freight operator) priorities in Scotland.

The document highlighted a perception on the part of some rail freight customers that technical, regulatory and engineering challenges prevent the rail industry as a whole from proactively seeking new freight business.

The most recent [ORR Freight Customer Survey](#) was carried out in 2012. This highlighted the biggest obstacles preventing firms from using rail to transport their freight is cost related, with rail performance (and recovery from episodes of poor performance) also being important to potential freight customers.

The closure of the West Coast Main Line, following the bridge collapse at Lamington, and how the industry responded to it highlights the challenges that rail freight can face. It also illustrates the type of measures, including investing in gauge clearance and diversionary route capacity and capability that will be required to deliver the objectives set out in Transport Scotland's Rail Freight Strategy.

The industry also needs to respond to the challenge of improving freight access to the network – both in terms of terminals and providing suitable train paths in a timely manner – whilst also ensuring that network performance is not compromised by maintaining provision for unused or unusable network capacity.

### Understanding how the railway supports the delivery of public policy

Government approaches the railway as a means to enable it to meet its broader policy objectives. The railway will be most successful in supporting public policy where it is able to respond to and anticipate market need. The challenge for the rail industry and the Scottish Government is to achieve a common understanding of the objectives that rail is there to support and of how rail is best able to support them.



This will require the industry to work with funders to develop business cases that take account of the wider economic impacts of transport so that rail provision can be planned in a way that provides the best value-for-money. However, it is important to recognise that the railway's contribution as an economic and social policy tool is not always reflected in its own finances, as many of its benefits are external to the industry's balance sheet. This has implications for funding which successive Scottish Governments have accepted, and it is important that this is acknowledged by government when formulating its future policies.

The challenge for the rail industry is to provide services that deliver funder requirements in an efficient, innovative and affordable way. The industry needs to be accountable for its decisions and the Scottish Government – in partnership with the Office of Rail and Road and the rail industry - will continue to monitor both the cost of the railway and the economic and societal benefits that it delivers and supports.

### **Understanding where rail can drive environmental improvements**

Improving Scotland's environment and supporting Scotland's contribution to global environmental challenges is a key priority of the Scottish Government. Transport is not an environmentally neutral activity, either directly or as a result of providing transport infrastructure.

Rail is well placed to support the delivery of the Scottish Government's target to decrease carbon dioxide emissions 80% by 2050 as it is able to transport high volumes of people and goods into and between urban areas. Rail is a less effective tool for reducing carbon emissions when it carries small numbers of passengers or where patterns of demand are more geographically dispersed. As part of future strategic development, these comparative advantages and disadvantages need to be taken into account if rail is to support the Scottish Government's environmental objectives effectively. Innovative technologies and the introduction of new techniques can unlock additional benefits and the industry will support development and the case for deployment.

The challenge for both the Scottish Government and the rail industry is to ensure that the transport system develops in a way that appropriately balances the overall environmental impact of supporting passenger and freight customer's transport needs in a sustainable way with the need to support the delivery of other government priorities.

### **Understanding drivers of financial performance**

Improving the understanding of cost drivers in the industry is an ongoing priority for both the industry and funders. Without improving its understanding of how

costs arise, both operationally and in relation to enhancements, the case for investment will be much harder to make. Providing this evidence requires the industry to understand the capability of the existing network, identify where the key bottlenecks are and identify development opportunities and new approaches that are likely to yield the best results. The Scotland Route Study is a key step forward in this, and it can support decision-making by funders and the rail industry alike.

High quality planning requires an understanding of how decisions in one part of the industry can drive costs elsewhere in the industry. Achieving a common understanding of these consequences will enable a better alignment between industry parties and improve transparency between operational and capital costs. It allows the industry and government to plan and anticipate the financing of the railway in a controlled and efficient way.

Planning on a whole-life basis requires dependable asset knowledge and requires asset management policies to be embedded in industry decision-making processes. Where investment is needed, funders require assurance that planned investments are based on an accurate view of existing asset condition.

Providing this assurance requires clear commitment by the industry that enhancement delivery programmes and timescales are realistic and project requirements are agreed with funders at an early stage. Also that projects are governed through change control to maintain clarity and consistency throughout the development and delivery phases.

### **Understanding and responding to the safety challenge**

Rail is a safety critical industry and safety is paramount in the delivery of a high quality travelling environment for rail users as well as supporting wider transport objectives in this area. Within the industry there is an increased and continuing emphasis on the need to improve workforce safety.

The challenge for the industry is to maintain and improve on its existing record as the safest railway in Europe while taking advantage of opportunities to reduce industry cost. The industry needs to define and address the challenge of working together to incorporate technological change in a safe and efficient way so that rail can make the greatest contribution possible to overall transport system safety.

### **Understanding supply chain and workforce planning challenges**

Rail's outputs emerge from a supply chain built from a variety of businesses, including an infrastructure manager, rolling stock suppliers and financiers all of



which contribute to or enable a service that is ultimately delivered by train operators.

The effectiveness of a supply chain can be undermined where any one link in the chain breaks down, and funders need to understand how vulnerabilities in one part of a supply chain can undermine decision making in other areas.

These vulnerabilities can include:

- An ageing workforce, which jeopardises the future efficiency of the industry where it leads to a skills shortage and where succession planning is not in place
- An adversarial industrial relations environment, which stifles the ability of the industry to innovate and adapt to technological change while also undermining staff development
- Investment uncertainty, where uncertainty around future investment in one part of the supply chain undermines confidence at another, making the supply chain less responsive and investment less effective and affordable.

The rail industry and the Scottish Government need a common understanding of the impact of each of these risks, and should develop common strategies to address them through:

- Industry workforce planning
- Investing in skills
- Broadening the industry's supply base
- Developing a better understanding of cross-industry opportunities for innovation and how to ensure obstacles are removed.

### **Understanding the implications of an evolving industry and funding structure**

The long-term future of the railway depends on its ability to respond to challenges in the markets that it serves. In some markets this will mean challenging for increased market share; in others, it may mean accepting that rail may not be the mode that is best placed to meet the needs of the market or funders.

Responding to these challenges will require the industry to act in a co-ordinated and consistent way. The ScotRail Alliance is an important step forward in this regard, and is central to how the railway should develop in Scotland.

However, the multi-operator nature of some of the busiest parts of the Scottish

rail network means that there are – and have to be – clear boundaries within which the ScotRail Alliance operates. Network Rail is required through its Operating Licence to apply a policy of not unduly discriminating between either operators or funders in terms of either its long term planning or its allocation of track access rights.

The change in Network Rail's status as a public sector body provides a challenge to both the industry, to its regulator and to government. The funding environment has moved from one that was complex but flexible to one which is conceptually simpler but also more rigid in its application.

In some ways this provides clearer signals to Government, as the incentives for infrastructure and operations are now more balanced than they were under the Regulatory Asset Base (RAB) approach to regulation. However, it requires a stronger emphasis to be put upon having a clear project scope definition to identify the required outputs during the development phase of a project.

### **Understanding the role of, and contributing to the development of, the System Operator function within Network Rail**

The railway's System Operator function encompasses the long term planning of the network, including developing proposals for future investment and high-level clienting, the production of the national timetable through to detailed access planning. These essential functions shape the GB-wide network and deliver improvements and co-ordinate to the benefit of Scottish passengers, freight shippers and wider stakeholders. They bind the network together, making the total greater than the sum of individual parts.

The Shaw Review of Network Rail highlighted the benefits from further devolution of decision making and accountability, with a strong System Operator to provide strategic coordination and leadership. Ensuring that Scotland's railway is fully integrated with the development of major improvement programmes, for example taking advantage of the major improvements to Crewe and the West Coast Main Line, is a key responsibility of the System Operator.

Scotland's Ministers are already responsible for funding and specifying the Scottish network, which is reflected in Network Rail's regulated outputs and incentives. With the creation of the ScotRail Alliance, most rail outputs are delivered through it. Cross-border passenger, sleeper and freight operators are not part of the Alliance, but are working closely to deliver improved services for their customers.

A strong and effective System Operator will integrate strategic planning and cross-industry priorities effectively, and allocate capacity fairly and transparently across all operators. Working closely with Network Rail's Scotland Route, funders, operators and wider stakeholders to promote a long term focus, it will be able to support both efficient delivery of current and future investment, and further devolution, across the network. It is an essential building block across the industry to develop and take forward future choices that deliver for Scotland.

### **Understanding the implications of a multi-funder environment**

In parallel to the structural changes that have taken place in Scotland following the creation of the ScotRail Alliance, the funding environment in Scotland is also becoming more complex. Investment funds from the Scottish Government may become scarcer in the future, and the industry will need to be able to identify and co-ordinate funding streams.

This reflects both scheme-specific funding arrangements as well as changes resulting from political devolution such as the City Deal programme. Responding to this emerging environment will be important in the future, both in the context of adhering to the principles enshrined within the Network Code but also in how business cases can best be developed for multi-funder schemes.

Under the terms of the Network Code, Network Rail is not permitted to 'unduly discriminate' between bodies that fund the network. In a multi-funder environment, this may present challenges where funders have competing objectives and different criteria for project development; it also provides an opportunity for the industry to act as an informed partner and advisor to the bodies that fund it, in particular where it is the guardian (though not the owner) of major scheme business cases.

It has specific implications for the way enhancement schemes are appraised. Scheme appraisal within the rail industry has mainly focussed on assessing options to inform how an enhancement output should be delivered most efficiently. This is appropriate for a single-funder approach to planning enhancements, as it is for the funder to decide if the enhancement is an efficient way of meeting the funder's broader policy objectives. In a multi-funder environment, where smaller funders are not sufficiently resourced to develop the wider business case for schemes as the Scottish Government is, the role of the industry in taking forward development will be critical.

The process of developing, appraising and prioritising investments will need to be progressed further to include the wider impact of rail on the economy and society. Evolving methodologies for assessing these impacts will be a key

challenge for government, the rail industry and for funders.

### **Understanding how the railway can play its parts as a credible, trusted partner**

Underpinning the industry's view of the future is that it should provide leadership in those areas of activity that it is best placed to manage. As the industry and its funding structure changes, the scope of industry responsibility will need to adapt accordingly.

This leadership may include challenging our stakeholders on occasion where there are conflicts between the achievement of short-term and long-term objectives, or where there is a lack of clarity on the part of funders and stakeholders about what their ultimate objectives are.

However, in order to be viewed as a credible and trusted adviser, the rail industry needs to deliver its current promises and to demonstrate its ability to respond to changing requirements and priorities. The industry must improve its ability to maintain the network's resilience in the face of increasing demands and external challenges such as climate change and on its ability to deliver outputs as agreed and funded.

Secondly, the industry must learn lessons from the CP5 enhancements delivery programme, both in terms of project delivery and in terms of the early stage development phase of projects where risks can be identified and mitigated.

# 07

## A Railway Fit for the Future

### Responding to challenges

This chapter outlines how the railway's opinion on the challenges identified in the previous chapter could be addressed in collaboration with the Scottish Government.

### Clarity of objectives

If the railway is to make the best possible contribution to Scotland's future prosperity, funders and specifiers need to be clear as to the strategic objectives they are pursuing, and the policies they are taking forward to achieve them.

The approach outlined in this chapter treats the railway as an integrated system, recognising that the industry can be at its most effective as a partner of government where it has clear direction, and ownership of delivery.

In setting out options, the industry considers that there are a number of underpinning principles that need to be taken into account when setting out strategic directions. These include:

- Prioritising customer experience
- Improving stations, retailing and the customer interface with the railway network
- Supporting the delivery of the Scottish Government's rail freight strategy
- Improving and maintaining operational performance
- Delivering a safe railway and reducing risks
- Ensuring that the network is sustainable and resilient, and that it is available for use at the optimum level.

These are areas where trade-offs and prioritisation will be required in the context of the level of funding that government provides. Decisions government takes now will be central to setting out the future role of the railway in Scotland.

### Enhancing customer experiences

A railway that is fit for the future will view the world through the eyes of its customers. This means considering the whole system including:

- How services are timetabled
- What future ticketing requirements are likely to be
- What environments will be required at stations and on trains
- How the industry can best support onward travel
- How the industry reacts during network disruption.

The industry is taking steps to address concerns that it fails to communicate effectively with passengers and freight customers.

### Improving the productivity of the Scottish economy

Scottish Ministers recognise the importance of a modern, diverse and productive economy. The connectivity provided by the rail network is central to delivering the broader outcomes and objectives that the Government is pursuing.

Rail is particularly effective where a relatively high volume of passengers travel, but funders need to take account of the ongoing resource requirements of supporting current and future services. These often include additional train operating costs, the cost of infrastructure provision and maintenance as well as the risk to operational performance and resilience that may be incurred in introducing additional traffic onto what are often the busiest parts of the network.

An integrated approach to planning train service enhancements, with the rail industry working with the Scottish Government, local authorities and other key stakeholders, is central to ensuring that Government outcomes and objectives are delivered.

This will provide assurance that developments to improve connectivity in one part of the network are not undermined by reducing connectivity elsewhere, or that trade-offs of this nature are acknowledged and addressed by funders in advance.

### An outward looking economy

Most of Scotland's trade in goods and services is carried out with the other constituent nations of the UK, and with trading partners on mainland Europe. The urban core of Scotland is located over 100 miles from the nearest significant metropolitan neighbour and the most densely populated parts of England are more than 200 miles to the south of the Central Belt. Minimising the impact that its geography has on the economy is a key objective of the Scottish Government, and is reflected in its broader transport policies. These have recently included enhancements to Scotland's motorway and trunk road networks, reductions in Air Passenger Duty and the introduction of Road Equivalent Tariffs on several ferry routes.

Cross-border passenger and freight services need to be integrated with internal Scottish requirements, recognising that the rail network has to support a mixture of long-distance, regional and urban passenger traffic as well as freight. There are trade-offs needed in optimising the rail network, and these need to take account of existing and planned enhancements to the road network in Scotland, in particular the impact they are likely to have on the subsidy required to support

inter urban rail services.

The rail industry will continue to highlight the potential financial and economic benefits of taking a dual-mode approach to improving connectivity within specific corridors where these undermine the case for rail.

The improved cross-border connectivity that HS2 will provide represents a major opportunity to improve both absolute journey times and rail's share of the Anglo Scottish travel market. It is also likely to free up network capacity for rail freight on the key main lines south of Manchester and Leeds which can benefit Scotland.

The industry will continue to work with the Scottish and UK Governments to develop plans that will ensure sufficient capability exists to enable Anglo Scottish freight volumes to grow once the enhanced passenger services commence.

### Providing local connectivity

The Scottish Government is responsible for setting the direction of how land is used and managed. Decisions on land use – whether they affect housing developments or employment - can help a region to adapt to new economic realities, as well as providing opportunities that radically improve people's quality of life.

Transport is key in making land use plans work, and providing access to the rail network may be critical in unlocking the benefits from strategic decisions. However, rail is not the only high quality mode of public transport, and may not be appropriate in all circumstances. The challenge that the Scottish Government and rail industry faces is that if demand on the network around our key urban centres continues to grow there may be choices to be made that require a multi-modal solution to maintain a consistent quality of transport choices for current and future users.

The rail industry will continue to work with stakeholders to ensure that decisions of this sort are based on the best evidence available, so that the railway plays an effective role in providing access to employment, labour and freight markets. It will work with funders and developers to ensure that where new stations and services are proposed, they provide value-for-money and can be delivered while maintaining network performance and the outputs of the entire network.

### Improving environmental sustainability

A key trade-off for the Scottish Government is to balance the objective of supporting regional economic growth with its environmental and financial sustainability objectives. Where both rail and road schemes are pursued in the same corridor it may undermine environmental benefits; such as a reduction in carbon emissions. It may also have financial implications as it will undermine rail's

competitive position relative to road.

This is a decision for the Scottish Government to make, but the rail industry intends to work closely with government to ensure that future investments take account of rail's capability in supporting achievement of government's environmental objectives.

The rail industry will continue to develop and implement climate change adaptation plans and work with stakeholders to promote biodiversity. Rail will also contribute to the Scottish Government's target to send zero waste to landfill and promote and embed energy efficiency in all aspects of the industry.

However, perhaps the most effective contribution the rail industry can make to meet the Government's environmental objectives is to make best use of the capacity that already exists. The industry will therefore continue to identify opportunities - including through ScotRail's smart ticketing programme or by running longer freight trains - where managing demand better could ensure that enhancements to the network capacity are timed efficiently. This approach will help to improve the carbon footprint of the network whilst also contributing to its financial sustainability.

### Improving rail safety

The continuous improvement of rail safety – both in terms of the travelling public and the industry's workforce is central to industry strategies and plans. The area of highest manageable risk is the continued existence of level crossings on the network.

The rail industry will continue to work with the UK Government (with which safety remains a reserved matter) and the Scottish Government to improve safety at levels crossing where it is not possible to remove them.

Recognising that this was a key priority for Ministers, in the last HLOS, Network Rail's Scotland Route is developing a full barrier overlay solution to replace the interim half barrier solution that was fitted to automatic open crossings. This prototype level crossing will address the risk imposed by pedestrian error and will be installed at two trial sites in Scotland at Ardrossan and Dingwall before 2019. If it is successful, further rollout will be planned across other sites in Scotland where these crossings exist with high pedestrian footfall.

By taking opportunities such as these the rail industry will continue to maintain its focus on minimising safety risks on the network.

### Supporting rural economies

Much of the Scottish railway network provides connectivity within and between urban areas. However, the railway in Scotland also plays an important role in rural



areas, providing both lifeline services for local populations as well as acting as a gateway for visitors. The challenge the railway faces in rural areas is to ensure that it delivers public transport relevant to the markets it serves, recognising that the railway is often uncompetitive with roads in terms of journey times and with buses in terms of service frequency.

Those services that exist are crucial for sustaining local populations: health, education and other social services are essential for rural areas to function properly. Rural rail services are important for providing a lifeline to the markets they serve: the number of passengers carried can be small, but the economic and social impact of not having them would be immense.

Rural rail services are often challenging to manage, with many complexities that are less apparent on busier routes. Furthermore, because many rural routes are single track, small changes in performance can quickly escalate if the causes are not identified and addressed promptly.

The rail industry will continue to work with the Scottish Government to identify potential opportunities for improving rural railways and to ensure that these improvements feed into the Scottish Government's broader objectives for rural economies. The ScotRail Alliance's support for Community Rail Partnerships is already demonstrating that working closely with local communities can support initiatives that increase demand, improve the travelling and station environments and embed and share best practice across the network.

### Improving network reliability

The people of Scotland rely on their transport networks to enable them to access employment, do business and undertake leisure activities. Rail is an important component of the overall transport system. It complements other transport networks when they operate normally and it enables people to complete their journeys when non-rail networks fail.

Therefore, network reliability is a key requirement for rail, and a very challenging aspect given the impact of recent extreme weather events and the likely future consequences of climate change. When the rail network is not resilient, people and businesses suffer and the railway loses credibility and business. An unreliable rail network also puts pressure on other transport systems, for example by increasing road congestion.

A railway that is fit for the future will provide funders with choices for improving the reliability of the network based on good asset knowledge and a reliable diagnosis of the engineering challenges the network will need to overcome. Also an understanding of how to improve network resilience at the same time as making enhancements to meet future demand. These include ensuring that both

power supply and track signalling capacity are sufficient to enable trains to use diversionary routes when required. The rail industry is continuing to develop its Digital Railway programme, the Traffic Management component of which is due to move from its development to its delivery phase in the next Control Period.

The trade-off that the Scottish Government needs to consider is that enhancing the railway to improve connectivity and network reliability in the short and medium terms often entails significant disruption to the network and therefore to the travelling public in the short term. Where significant interventions are required to maintain, renew and enhance the railway, funders and the industry need to consider the appropriate balance between blockades and frequent disruptive possessions that best reflect the needs of passengers, freight customers and funders.

### Improving rolling stock reliability

The Scottish Government recognise the value that new and refurbished rolling stock can provide in delivering a reliable, quality service that supports socio-economic development. The extensive refurbishment of the ScotRail diesel fleet is underway with the next significant refurbishment cycle not being required to commence until 2025.

Fit for purpose depots and stabling facilities to accommodate rolling stock are central to servicing and providing a clean, well maintained and reliable fleet. The rail industry will continue to work with the Scottish Government to identify gaps in servicing and stabling capability that will lead to more efficient rolling stock operations. Having a clear strategic understanding of both fleet and maintenance requirements will be necessary if the industry is to deliver the quality of output expected by customers and funders.

### Enhancements for capacity, capability and journey time for both passengers and freight

The rail industry is focussed on playing its part in contributing to Scotland's future prosperity. In order to achieve the economic advancement that Scottish Ministers' aspire, there will be a need to have a continuous pipeline of projects being developed, designed and delivered to achieve the long-term outcomes that passengers, customers and funders require.

Improvements to service frequency or journey times need to feed into a clearly defined wider connectivity strategy. For example, improving journey times may be a relatively ineffective policy lever on commuter corridors compared to service frequencies, but be a more effective lever on inter urban corridors.



# 08

## Investment Choices and Options

### The case for investment

The key requirement for Scotland's railways over the next decades is to make best use of existing and future capability. As Scotland's economy develops and evolves, Government needs to be clear as to what objectives rail is best-suited to support. These may include new lines and stations as well as improvements to the current network.

In this document, the industry has set out how it is already working to develop strategies to meet future demand. The Route Study identified a number of areas where capacity and journey time challenges exist, and this chapter presents an industry view of the priorities that Ministers may wish to address in formulating their strategies for the future. This section identifies how a strategic approach to network management will support improvements to both the current network and to meeting potential future market needs.

### Incorporating innovation in investments

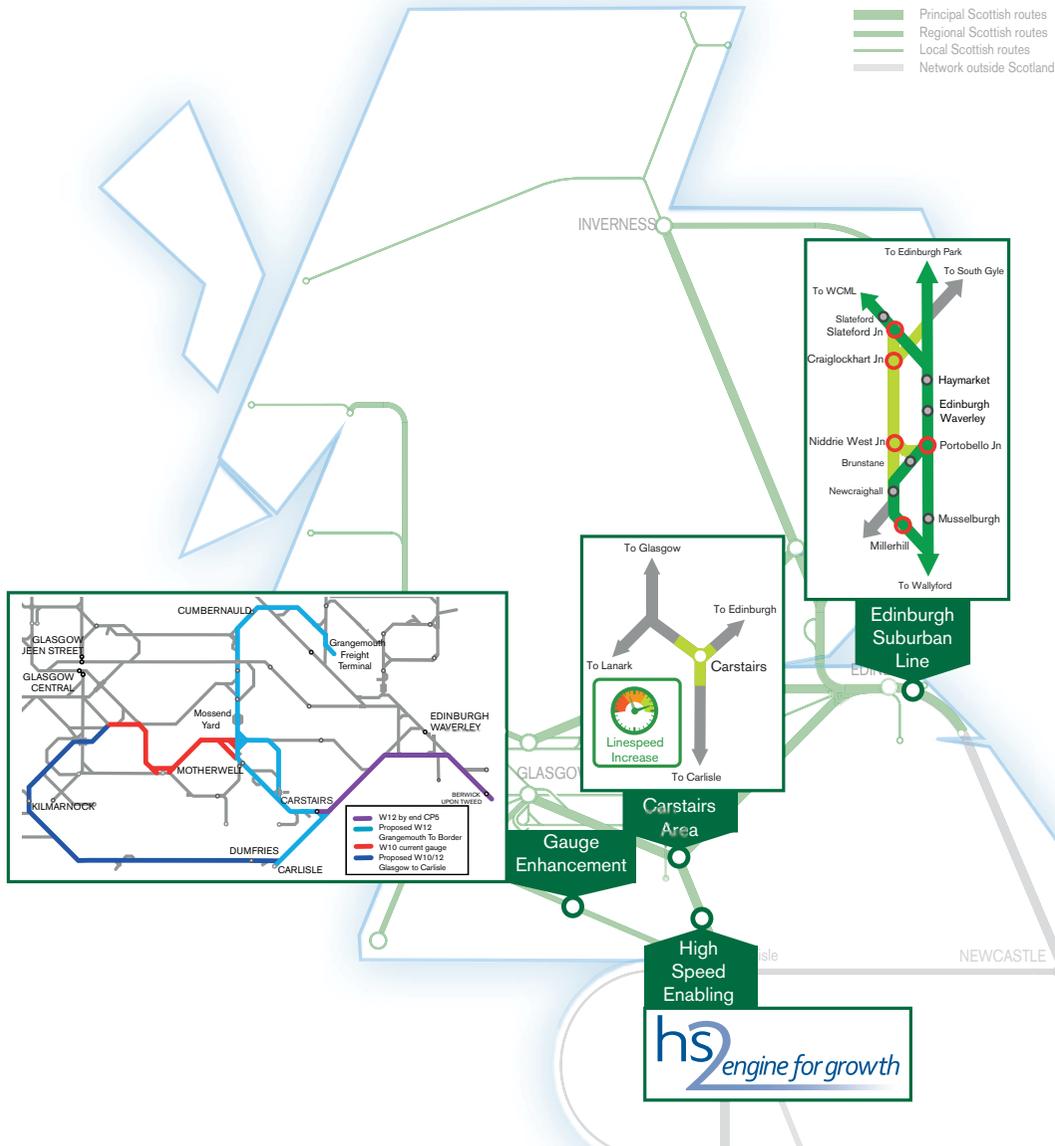
Delivering large scale engineering projects is challenging as well as being disruptive for passengers and freight customers. Exploring new and efficient ways of transporting passenger and goods across the network as well as delivering projects with innovative approaches and technologies will support the industry to deliver schemes at the best value.

The industry's focus is on delivering outcomes that meet passenger and freight requirements. This builds on lessons learned from past and current projects, but also on taking advantage of opportunities to incorporate new technologies and approaches, building on experience both within the global rail industry and beyond.

Innovative approaches will benefit both to the design and delivery of investment projects and the continuing operation of the network. Developments in technology, for example in rail vehicle design, will continue to provide opportunities to improve efficiency and sustainability. The rail industry is already testing self-propelled vehicles and locomotives that use modern battery technologies when operating away from electrified routes, and as this technology develops, alongside diesel and conventional electrification, it is likely to be an increasingly attractive and viable choice when developing cases for investment and rolling stock renewal.

A specific and clear focus on innovation in Scotland will support the rail industry to work more efficiently. Scotland has a long standing reputation for innovation and the rail industry in Scotland has the capability to benefit from rail innovation.

Identifying and integrating innovative ideas, which have been approved through the industry processes, will support the industry in efficient delivery of its outputs. The development, design and delivery of the projects will require decisions to be taken at the appropriate stage. This will support the packaged approach that optimises decisions to align with the best value and the least disruptive effect on current and future users, and allows innovations to be deployed to benefit passengers and freight shippers while improving the affordability and wider sustainability of the rail network,



## A Connected Scotland

Cross-border connectivity for passenger and freight services is a key enabler for economic growth. Electric services and improved gauge clearances will facilitate larger, faster and more frequent intermodal freight services. Having a network with better flexibility will offer greater resilience during planned and unplanned disruption and will lead to less inconvenience for both passengers and freight customers.

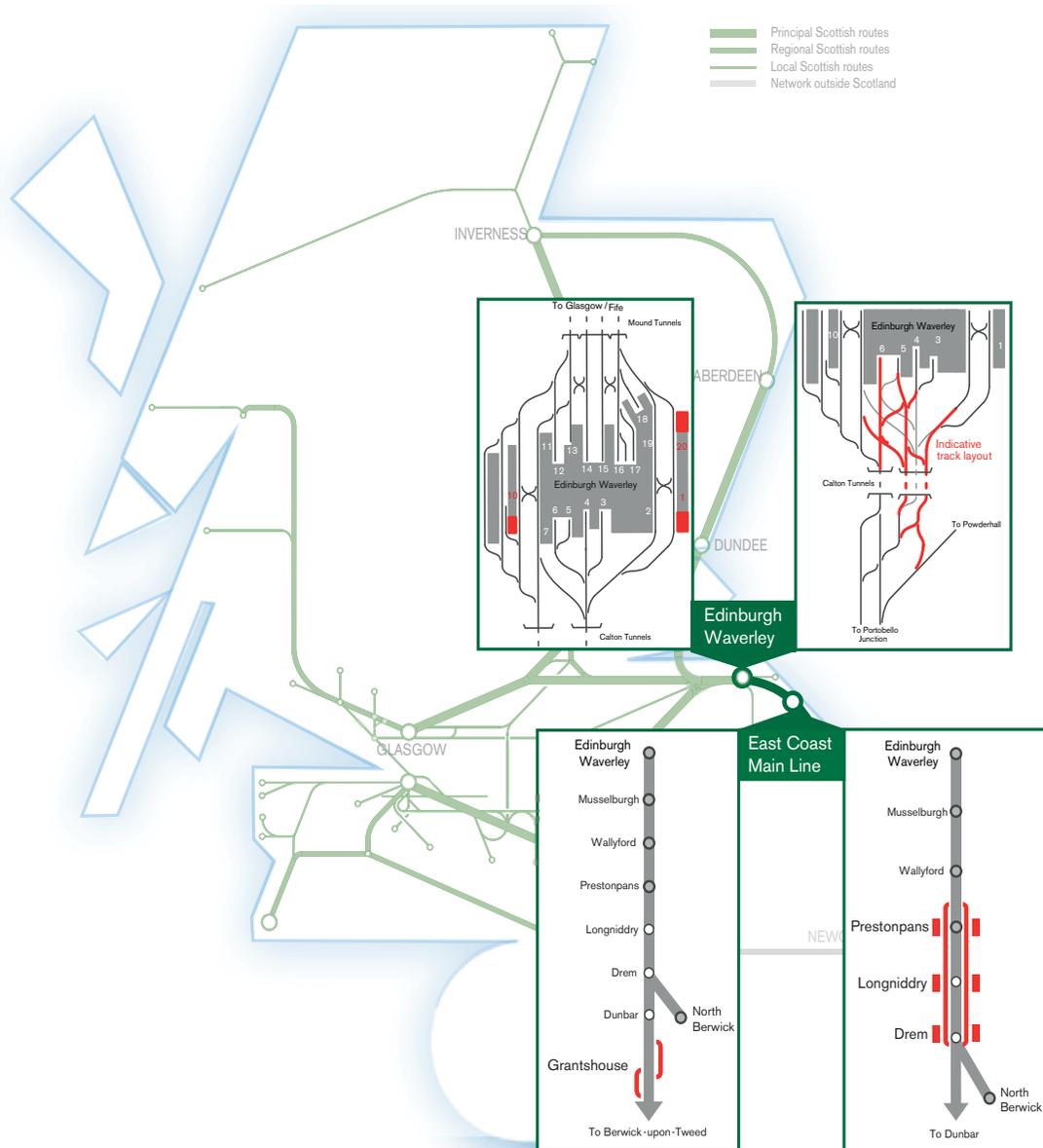
### Potential Investment Opportunities

Option	Output Driver	Scheme Detail	Indicative Cost
<b>Edinburgh Suburban Enhancement Programme</b>		This option will build on infrastructure upgrades delivered by 2019, providing increased connectivity and resilience for passenger and freight services. It will permit anticipated increases in freight demand to be managed and ensure that all freight can bypass Edinburgh Waverley.	£££
<b>Gauge enhancements</b>			
<b>West Coast Main Line to Grangemouth</b>		Gauge enhancement on the WCML to Grangemouth will support the freight industry to better meet demand and potentially open up new markets. Upgrading gauges on key alternative routes into Scotland such as the Glasgow and South Western line will improve railway resilience by enabling trains to be diverted during disruption.	£
<b>Glasgow to Carlisle via Dumfries</b>			££
<b>Carstairs Area Enhancement</b>		Aligning this enhancement with planned asset renewals supports the efficient delivery of infrastructure upgrades. Improving the layout and linespeed will improve performance, freight traffic regulation, reduce journey times and whole life costs.	££
<b>High Speed Enabling Projects</b>		Provide funding to undertake development work to determine how High Speed 2 (HS2) and High Speed Rail Scotland (HSRS) can be efficiently integrated into the existing rail network in Scotland.	£

#### KEY

<b>CAPACITY</b>	<b>RELIABILITY</b>	<b>JOURNEY TIME</b>	<b>FREIGHT</b>
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Estimated cost range:- £ - less than £100m: ££ - £100-300m: £££ - greater than £300m



## East Scotland Capacity

Passenger numbers are predicted to rise for both local and cross-border trains and there are aspirations to increase cross-border containerised freight tonnages. Enhancing the railway on the East Coast Main Line will enable more Anglo Scottish passenger trains to run. It will support more (longer) freight trains, removing lorries from already congested roads. It will also allow longer passenger services to run, providing more seats for customers at peak times. Finally, it will help train punctuality by having a more resilient railway network.

## Potential Investment Opportunities

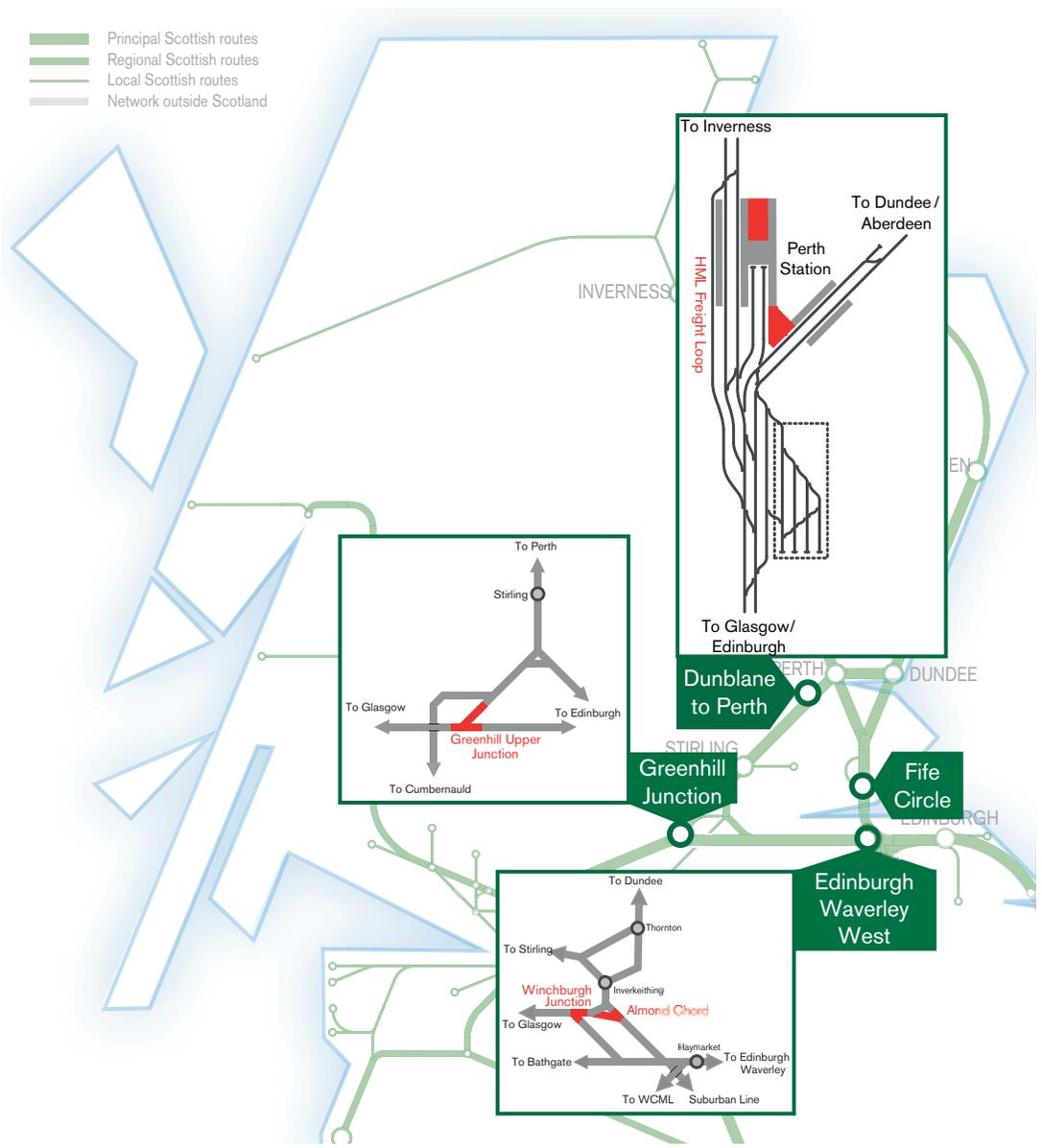
Option	Output Driver	Scheme Detail	Indicative Cost
<b>Prestonpans to Drem Four tracking</b>		Combined with a timetable change, this option enables additional local services providing more seats at busy times, increases local connectivity and is a step towards more cross-border passenger and freight services longer term.	££
<b>Edinburgh Waverley Platform Enhancements</b>		Extending platforms enables more seats on cross-border services.	£
<b>Edinburgh Waverley Eastern Approach Enhancements</b>		This option will maximise platform capacity and availability at a congested part of the network.	££
<b>Dynamic loops south of Drem</b>		A later opportunity exists to provide more capacity and operational flexibility for both local and long-distance passenger trains as well as freight.	££

### KEY

<b>CAPACITY</b>	<b>RELIABILITY</b>	<b>JOURNEY TIME</b>	<b>FREIGHT</b>
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Estimated cost range:- £ - less than £100m: ££ - £100-300m: £££ - greater than £300m

- █ Principal Scottish routes
- █ Regional Scottish routes
- █ Local Scottish routes
- █ Network outside Scotland



## Seven Cities Connectivity (Part 1)

Passenger numbers are forecast to increase between Edinburgh, Stirling, Glasgow, Perth and Dundee. Enhancing routes from the western end of Edinburgh Waverley to Glasgow, Perth and Fife will enable more passenger trains and larger freight trains to operate.

### Potential Investment Opportunities

Option	Output Driver	Scheme Detail	Indicative Cost
<b>Edinburgh Waverley Western approach enhancements</b>	<span style="color: orange;">█</span> <span style="color: teal;">█</span> <span style="color: green;">█</span> <span style="color: red;">█</span>	Grade separating Winchburgh Junction and creation of a chord line and grade separated junctions at Almond to connect with Winchburgh and Fife lines towards Edinburgh will improve connections and the resilience of the network. The scheme will also help to avoid larger scale interventions closer to Edinburgh Waverley and provide a route for larger gauge freight services.	££
<b>Train Lengthening Fife to Edinburgh Waverley</b>	<span style="color: orange;">█</span> <span style="color: teal;">█</span> <span style="color: green;">█</span> <span style="color: red;">█</span>	Providing more seats during peak hours to meet passenger demand should be progressed at the appropriate time. This option has been included in the ScotRail franchise variation for December 2018.	-
<b>Greenhill Junction Grade Separation</b>	<span style="color: orange;">█</span> <span style="color: teal;">█</span> <span style="color: green;">█</span> <span style="color: red;">█</span>	Enhancing the infrastructure at this location will provide a more flexible timetable and enable more trains to operate.	£
<b>Dunblane to Perth Corridor Enhancement</b>	<span style="color: orange;">█</span> <span style="color: teal;">█</span> <span style="color: green;">█</span> <span style="color: red;">█</span>	Improving the layout of the railway to support journey time reductions, additional services, network flexibility and performance will benefit passengers and freight customers. Linking the projects with asset renewals and prioritising the upgrades at the right location and time will maximise the benefits of the enhancement to the industry and funders. Early priorities include: <ul style="list-style-type: none"> <li>• Perth Servicing and Stabling facility</li> <li>• Perth Station enhancement.</li> </ul>	£££

#### KEY

CAPACITY	RELIABILITY	JOURNEY TIME	FREIGHT
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Estimated cost range:- £ - less than £100m: ££ - £100-300m: £££ - greater than £300m

## Seven Cities Connectivity (Part 2)

Taking a whole-system view to ensure that the most efficient and affordable whole-industry solutions are developed to meet passenger growth, journey time improvements, connectivity improvements as well as providing adequate paths and facilities for freight is a key priority on routes in the North of Scotland.

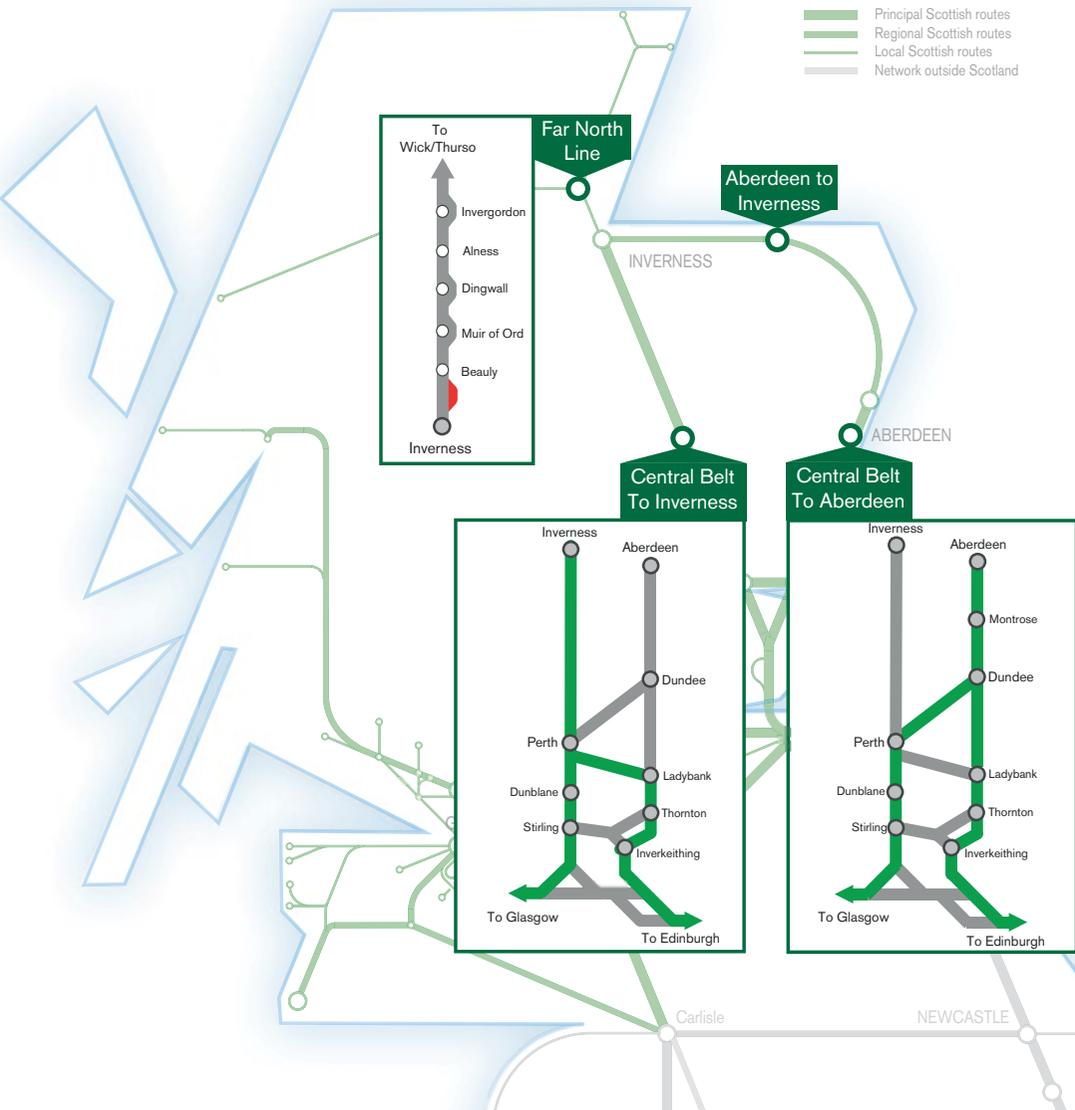
### Potential Investment Opportunities

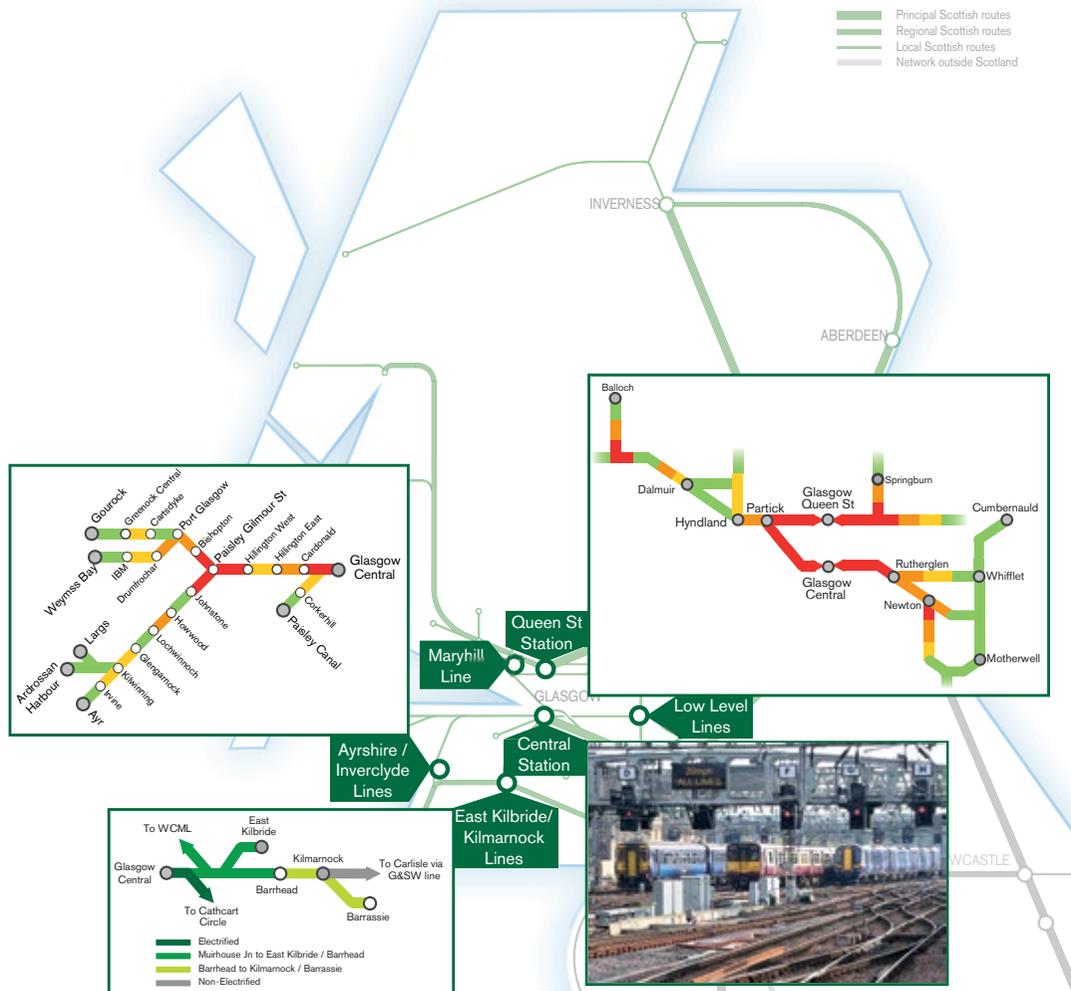
Option	Output Driver	Scheme Detail	Indicative Cost
<b>Central Belt to Inverness Enhancements</b>		Delivering incremental infrastructure enhancements in a logical manner will help the industry deliver benefits as early as possible. In some instances infrastructure interventions that are undertaken at different locations along a line of route can provide the same outputs in terms of end to end journey time improvements, connectivity and enhanced freight operation. Focussing on the outputs and not constraining funding to geographic areas is important for delivering efficient projects that provide the maximum benefits to passengers and freight customers.	<b>tba</b>
<b>Central Belt to Aberdeen Enhancements</b>			<b>tba</b>
<b>Aberdeen to Inverness Enhancement</b>		Building on the infrastructure and passenger service enhancements that will be delivered in 2019, should further enhance overall passenger services and freight capability whilst reducing journey times and improving reliability.	<b>££</b>
<b>Far North Line Enhancement</b>		Providing a reliable timetable and infrastructure for passenger and freight services is of prime importance on this route which provides "lifeline" services to the local communities.	<b>£</b>

#### KEY

<b>CAPACITY</b>	<b>RELIABILITY</b>	<b>JOURNEY TIME</b>	<b>FREIGHT</b>
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Estimated cost range:- £ - less than £100m: ££ - £100-300m: £££ - greater than £300m





## Greater Glasgow Improvements

Glasgow has a mature commuter market with passenger numbers forecast to increase. Lengthening trains, amending timetables and enhancing rail infrastructure will support the industry in transporting more passengers.

### Potential Investment Opportunities

Option	Output Driver	Scheme Detail	Indicative Cost
<b>Glasgow Central High Level station enhancement</b>		Depending how other choices made by funders impact on station capacity, the industry will make best use of available capacity, considers rolling stock utilisation, timetable and infrastructure solutions (refer to Case Study: Supporting economic growth – page 14).	<b>tba</b>
<b>Timetable amendments Glasgow Queen Street High Level corridors</b>		Better meet the needs of passengers across services by a combination of timetabling improvements and changes to stopping patterns. This is included in the ScotRail franchise variation for the December 2018 timetable.	-
<b>Train lengthening Glasgow Low Level corridors</b>		Selective train lengthening on busy services provides more seats and eases crowding.	<b>tba</b>
<b>Train lengthening Ayrshire and Inverclyde</b>		Selective train lengthening on busy services provides more seats and eases crowding.	<b>tba</b>
<b>Additional capacity to East Kilbride/ Barrhead</b>		Providing additional infrastructure - potentially including electrification - to deliver additional services with more seats as well as optimising operations at Glasgow Central.	<b>££</b>
<b>Electrification and enhancement to Kilmarnock/Barassie</b>		Making best use of the available capacity and providing a more resilient network delivering greater connectivity.	<b>£££</b>
<b>Electrification of Maryhill Line</b>		Construct an efficient timetable to optimise platform occupancy, improving rolling stock use and providing resilient network performance.	<b>£</b>

#### KEY

<b>CAPACITY</b>	<b>RELIABILITY</b>	<b>JOURNEY TIME</b>	<b>FREIGHT</b>
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Estimated cost range:- £ - less than £100m: ££ - £100-300m: £££ - greater than £300m

## Funding Strategy

### Current context

In the current Control Period, Scottish Ministers decided to provide funding for a number of specified projects, as well as five ring-fenced funds. These funds have generally worked well and are delivering schemes with strong business cases. These are:

- Scottish Stations Fund
- Scottish Strategic Rail Freight Investment Fund
- Scottish Network Improvement Fund
- Future Network Development Fund
- Scotland: Level Crossing Fund

At the same time, investments such as Highland Main Line Phase 2, Aberdeen to Inverness Phase 1 and EGIP have been funded as “named” determination schemes, where the outputs are defined by Transport Scotland, and where the business case is owned by Scottish Ministers.

The approach that funders choose to take to fund enhancements is principally a matter for them. However, the approach taken to funding can have a material impact on the type of schemes that are delivered. Developing a sound funding framework, including development and design processes, will be fundamental in delivering both strategic and tactical improvements to the network.

### Development funding

The rail industry is strongly supportive of the need to ensure that investment in the network delivers the expected outputs. A clear process and appropriate funding for future network development is important, to ensure that the best whole industry solutions are developed. Putting a continuous planning cycle and project development process in place is central to the achievement of the approach set out in this document.

This is important in cases where the balance between development and delivery spend is set into Network Rail's funding at the time of the regulatory determination. At a project level, there is a trade-off between the amount of resources being devoted for development to a scheme being approved for delivery and the risk of cost overruns in delivery.

At the same time, effective early stage development can identify weaknesses in

## Case Study : Ring Fenced Funds

### Carmuir Tunnels

Carmuir Tunnels were located below the Forth and Clyde Canal between Greenhill Lower Jn and Carmuir West Jn. The tunnels dated back to the construction of the railway and, although the track could have been lowered to enable electrification, this would have restricted future freight aspirations on this route. In addition, ongoing maintenance costs were significant compared to those of a new structure.

An appraisal carried out in May 2014 concluded that replacing the tunnels with an aqueduct over the line was preferable from both a short-term and a longer-term perspective.

The principal short-term impacts of the scheme was to address one of the most significant gauge clearance restrictions for freight traffic between Grangemouth and the West Coast Main Line and to reduce the ongoing maintenance costs of the two tunnels. However, the close proximity of Carmuir West Junction to the tunnels and the fact that this junction was due to be renewed in 2016 meant that the design of the aqueduct could be tailored to deliver an improved linespeed between Larbert and Greenhill Lower Junction. The longer-term impact of the scheme will therefore be to enable shorter journey times for services between Glasgow and both Aberdeen and Inverness.

The new aqueduct was installed in December 2014 as part of the advanced clearance work prior to electrification of the route. This project illustrates how, by utilising the Scottish Strategic Rail Freight Investment Fund to deliver the gauge improvements and Scottish Network Improvement Fund which enables the linespeed improvements, Network Rail was able to make the right strategic intervention by taking advantage of a tactical opportunity.

the business case for schemes that could prevent them being delivered and will ensure that schemes that pass into delivery phase are tailored to meet funder outputs and outcomes. High quality early stage development is a necessary precursor to high quality, reliably costed project delivery.

### Balancing discretion and direction

The regulatory context within which Network Rail has delivered enhancements is and will continue to be output-based. However, striking an appropriate balance between direction and discretion in how these outputs are delivered is a key issue, and will need serious consideration and discussion. A unitary funding environment may be less suitable where more than one funder is investing in a scheme.



## Case Study : Ring Fenced Funds

### Scotland Accelerated National Operating Strategy

Network Rail's Scotland Accelerated National Operating Strategy (SANOS) project in CP5 will be completed by 2019. The National Operating Strategy is designed to improve the operational efficiency of the rail network by centralising the control of signalling infrastructure to Route Operations Centres (ROC).

This project will not in itself directly increase the operational capacity of the infrastructure. However, it does present the opportunity to deliver enhancements in parallel with the works thus reducing the cost to government. The opportunity to improve the signalling capacity on the Up line between Grangemouth Jn and Polmont Jn was identified by the project team that could potentially be delivered as part of the SANOS project. The improvement will deliver a more resilient network during times of planned and unplanned disruption.

The Ring Fenced Funds are being used to fund the efficient delivery of this opportunity-led improvement that would not necessarily be considered for implementation as a standalone enhancement. Whilst the enhancement does not necessarily have a quantifiable business case in terms of enabling additional services to operate, there is a strategic case for delivering the project to enable longer term connectivity as well as diverted train services to be accommodated during asset renewals and enhancements. This will ultimately improve the customer experience and reduce industry cost.

There will need to be a balance between discretion and funder direction and there are risks attached to having the wrong balance. Where the funding settlement relies too much on funder direction, the more removed the industry becomes from supporting and challenging the delivery of outcomes and the more focus there is on the delivery of specified outputs. Ensuring that the future approach for the industry includes both appropriate incentives and accountabilities will support delivery of strategic outcomes, while making best use of the capabilities of all involved.

### Industry planning

The industry has demonstrated its appetite and capability for identifying long-term challenges for the railway and developing potential responses to it. It works closely with stakeholders across Scotland and is well placed to support and advise both the Scottish Government and new investors in the railway. The rail industry is well placed to become an informed partner that manages business cases that have more than one owner and safeguards the interests of all parties in an open and transparent way.

The industry has also demonstrated that it is capable of managing the funds that are devolved to it in an accountable and efficient way. We encourage the Scottish Government to ensure that whatever funding approach it adopts is consistent with the advice above to delivering tangible benefits to passengers, freight customers and wider Scottish society.

### Commercial sources of income

Public funding sources and farebox income will always be the main sources of industry funding. It is important that the industry retains the freedom – within certain parameters – to take advantage of commercial opportunities. This will minimise the industry's call on public funds and passenger fares. Where we are able to optimise the performance of land and property assets this commercial approach will go hand in hand with improving customer satisfaction.

## Case Study : Ring Fenced Funds

### Additional Platform at Dunbar Station

The existing single platform layout at Dunbar station is a constraint on capacity as services require to cross the southbound main line to access the platform. Constructing a platform in the northbound direction would contribute to wider ECML capacity improvements that will enable more trains to operate on the northern section of the ECML consistent with the longer term connectivity aspirations identified in the Route Study.

The scale of the construction work is of similar magnitude to schemes typically funded from the Ring Fenced Funds, although its position on the ECML high speed line is likely to lead to significantly higher overall cost than a similar scheme on a more remote part of the network. The governance arrangements for Ring Fenced Funds set out upper funding thresholds that can restrict the enhancement options that can be considered. This limit often directs the industry to focus its attention on delivering lower-value enhancement schemes with potentially weaker outputs and benefits.

The funding required to deliver the enhancement at Dunbar is above the funding threshold set out in the Ring Fenced Funds and would normally have been a "named" determination scheme. However, the industry recognises the importance of strong governance arrangements for the Ring Fenced Funds, but it also believes schemes such as this should be funded through Ring Fenced Funds bridging two control periods if necessary.

# Rail Delivery Group

The Rail Delivery Group (RDG) was set up in 2011 to provide leadership to Britain's rail industry, bringing together the owners of Britain's passenger train operating companies, freight operators and Network Rail.

Its mission is to promote greater co-operation between these groups through leadership in the industry and by working together with Government, the supply chain and stakeholders.

The RDG is committed to the long-term health of the railway as well as the need to see improvement in the shorter term. It does this by developing strategies for the industry to put into practice and by proposing solutions for policy makers to implement.

## **Contact for more information:**

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