

Rail Freight Growth Target

**A Call for Evidence on designing and delivering rail
freight growth target options for the rail network**

5th July 2022

Introduction

The UK Government's ambitious legislative greenhouse gas reduction targets, including Net Zero carbon by 2050, are significant drivers in facilitating rail freight growth and modal shift to rail. Rail freight, even with contemporary diesel traction, already produces less greenhouse gas emissions and improved air quality compared to diesel road haulage. For rail freight services powered by electric traction or biofuels, the carbon benefits are greater still. There are significant social, environmental, and economic benefits to moving more freight by rail:

- A tonne of freight transported by rail produces 76 per cent less carbon emissions than a tonne of freight transported by road¹
- Rail freight produces significantly lower NOx and particulate emissions than road freight per tonne delivered, improving air quality²
- One freight train can carry the equivalent load of up to 76 Heavy Goods Vehicles (HGVs) – that is equivalent to up to 1.6 billion fewer HGV kilometres (km) on the road each year³
- Rail freight generates £2.45billion (bn) in economic benefits to UK PLC annually, of which £800million (m) is social benefits and £1.65bn is to customers of rail freight (60 per cent of these benefits accrue in former industrial heartlands, and 93 per cent of these benefits accrue outside of London and the Southeast)⁴.

For these reasons, recent Government rail policy proposals have been supportive of a growth in rail freight. The Williams-Shapps Plan for Rail (Plan for Rail) recommended the establishment of a new, public rail body: Great British Railways (GBR). In this new industry structure, the rail freight industry will remain largely private sector operated, while benefiting from national coordination, new safeguards, and a rules-based access system. GBR will also have a duty to promote rail freight and new levers to secure its economic, environmental, and social benefits. One of the core commitments for freight in the Plan for Rail (and the Transport Decarbonisation Plan) is that the Government will set a rail freight growth target, as has already been done in Scotland for the Scottish rail network.

The Government has recently published a multi-modal strategic plan for the freight sector, the 'Future of Freight: a long-term plan'⁵. Further to this, the Government has committed to:

- Review the National Policy Statement for national networks, ensuring it supports the Government's commitments for appropriate development of infrastructure for road, rail, and strategic rail freight interchanges
- Design and implement a strategic transport network for the whole of the United Kingdom (UKNET) and commit funding to improve the network.

Call for Evidence

The purpose of this call for evidence is to develop an understanding of how much of the current and future market demand for freight could be met by rail, and the role rail can play in the nation's supply chains. This information will help us to understand the freight industry's ambitions and challenges, as well as what your current perceptions are of engaging with the rail industry. Your responses will be used to inform future rail freight growth target options for the rail network.

To help us understand the realistic scope there is to transfer freight to rail, we need to develop an understanding of: the volume of goods that could be moved by rail; where suppressed demand exists on our rail network; where potential for future rail freight traffic exists; and where further work is needed to establish new rail terminals or rail-connections at existing facilities.

Responding to this Call for Evidence

This Call for Evidence launches on 5th July 2022 and will be open for 12 weeks, until 27th September 2022.

We recommend you read this document in full before submitting your response. You may respond as an individual or on behalf of an organisation or organisations (please let us know all the organisations you are responding on behalf of).

You can submit a response in the following ways:

- Online via the Call for Evidence webpage
- Via email to RFGTcallforevidence@gbrtt.co.uk using the response template, which is available to download on the call for evidence webpage.

If you are aware of other organisations or individuals who may wish to be involved in this process, please direct them to the call for evidence website.

We have grouped the questions into several themes. You can answer as many of them as are of interest and relevance to you or your organisation. Please provide as much evidence, based on credible data or verifiable qualitative information (such as examples and case studies), as you can to support your submission.

The most valuable responses will show how we can support rail freight growth in the context of our five strategic objectives (see page 4) over the short-term (the next five years), the medium-term (the next 10 years), and the long-term (the next 30 years). Respondents are welcome to consider the full range of potential measures or interventions, particularly those which complement private sector activity. Recognising the financial constraints the railway faces, any proposals that require public investment, should set out the cost and benefits, highlight the tensions and trade-offs, and evidence the efficiencies such a proposal would realise.

Strategy approach

The Department for Transport (DfT) has commissioned the Great British Railways Transition Team (GBRTT) to develop a range of rail freight growth target options for the rail network, to be presented to the Secretary of State. The DfT has asked us to deliver this work in two stages:

1. To plan and deliver a call for evidence with logistics businesses and the supply chain (to develop an understanding of demand and to help us develop options to deliver growth on the supply side) and;
2. To provide multiple growth target options which outline dependencies, trade-offs and the costs and benefits of each. This will include capacity trade-offs and policy levers to incentivise growth, which Government and GBR will be able to control, while recognising that many of the commercial levers for freight are in the private sector.

Strategic rationale

The strategic rationale for facilitating rail freight growth is predicated on the significant social, environmental, and economic benefits of rail freight, compared to road and waterways (see page 2). The recent constraints on the availability of HGV drivers have served to highlight the weaknesses in the national supply chain being overly reliant on one form of transport, highlighting the strategic benefit of moving a greater proportion of freight by rail.

A rail freight growth target will give GBR and the Freight Operating Companies (FOCs) a focal point around which the sector can unite, allowing us all to be more proactive and collaborative in stimulating rail freight growth, by attracting new customers to rail and by improving the rail freight offer for existing customers. A common sector objective will drive positive cultural, behavioural, and structural changes that will ensure more freight can be moved by rail. It will also provide a measure to ensure that Government is continually supporting rail freight growth. It should, however, not become a ceiling or limit to growth. A rail freight growth target for the rail network will complement existing and future targets set by Scottish Ministers in Scotland, and magnify the impact of rail freight growth nationwide.

Aligning to the Strategic Plan's objectives

Following the commitment in the Plan for Rail, GBRTT is producing a Whole Industry Strategic Plan (Strategic Plan) to enable the Government to set a unified direction for the railway. Rail freight growth has the potential to support all five strategic objectives of the Strategic Plan: meeting customer's needs; delivering financial sustainability; contributing to long-term economic growth; levelling up and connectivity; and delivering environmental sustainability.

Part One: Meeting customers' needs

These questions are primarily aimed at freight customers and logistics companies, both inside and outside the rail sector. These questions aim to supplement our current understanding of market demand and forecast growth, through a qualitative exercise that will help us to understand the appetite for moving more freight by rail and to identify the size of the freight market that could realistically be moved by rail. If these questions do not apply to your organisation, please move to Part Two.

Our understanding of rail freight growth is based on industry forecasts produced by MDS Transmodal for Network Rail in 2019. These unconstrained forecasts demonstrate considerable growth out to the 2040s (72 per cent in the central scenario and 133 per cent in the high growth scenario)⁶. These forecasts were produced prior to the Net Zero legislative commitments and did not capture new rail markets, both of which are expected to drive further demand for rail freight. Below is some key information to support your responses to the questions in Part One.

- Rail freight plays an important part in integrated logistics chains with roads and waterways. It supports Britain's import, export, and domestic markets through delivery of consumer goods, supermarket goods, construction materials, finished automotive vehicles, domestic waste, petrochemicals, steel, and other goods.
- Over 40 per cent of UK rail freight consists of containerised goods; intermodal equipment enables chilled and fresh food to be moved by rail⁷
- Over 30 per cent of UK rail freight consists of construction materials; an average train can carry more than 1,450 tonnes and a 39-wagon 'jumbo train' can carry 3,600 tonnes, which is the equivalent of 60 to 125 loaded lorries⁸
- Progress is being made in the Express Freight market (high-speed freight services carrying parcels and light cargo) using a range of operating models (e.g. repurposed passenger units or capacity on existing passenger services)
- Technological innovation in more sophisticated wagon designs and more powerful trains has supported the movement of longer and heavier loads by rail
- Rail freight operation can vary from several customers (with smaller loads) being aggregated on to a single train, to a single customer occupying a full train
- The Mode Shift Revenue Support scheme assists with the operating costs of running rail freight where road has a cost advantage
- Rail can be competitive in the movement of consumer goods from a rough distance threshold of 160km in length upwards (although shorter flows do exist)
- Rail can be competitive in the movement of bulk goods for both short-distance journeys (eg below 50km) and long-distance journeys
- Some commentators believe that to meet the legislative Net Zero targets, a larger volume of freight will need to move by rail as long-distance HGVs are not expected to be electric powered in any significant numbers by 2050⁹.

Understanding your views on the rail industry

These questions are for all customers and organisations that do not currently use rail

- Have you used rail to transport goods in the past?
- What is your perception of working with the rail industry?
- Why does your organisation not use rail to transport goods?

These questions are for all customers and organisations that do currently use rail

- What are the key reasons why your organisation does not transport a larger tonnage of freight by rail?
- What is your perception of working with the rail industry?

Understanding current and future market demand

- Do you see the greater use of rail freight as a viable solution for reducing greenhouse gas emissions in your operation?
- Are there parts of your supply chain that you would like to transfer to rail?
- Does your organisation currently move goods by road in a single leg journey, that exceeds approximately 100km on a regular basis?
- If the rail industry was not constrained (e.g. by capacity, driver resource or asset availability), how much extra freight tonnage could be moved by rail each year?
- Please describe how the total annual tonnage of freight moved by your organisation (across all transport modes) is likely to change over the next 5 years, 10 years, and 30 years.

Understanding the opportunities and challenges to rail freight growth

- Do any of the terminals or facilities you presently occupy have a rail-connection but do not receive rail traffic?
- Are there any terminals or facilities you presently occupy adjacent to or near the railway that are not currently rail-connected?
- What are the key opportunities for the credible, commercially viable growth of rail freight usage in the next 5, 10, and 30 years?

Understanding your priorities and future engagement

- Please rank the following in order of importance from 1 (low importance) to 5 (high importance) for your organisation: decarbonisation; cost; journey time; reliability; flexibility.
- Would you welcome further engagement with the rail industry to begin looking for potential solutions to establish a rail service?

Part Two: Designing a growth target

These questions are aimed at a larger audience of stakeholders both inside and outside the rail sector. The purpose of these questions is to seek your views on how important rail freight growth is to you or your organisation, and how a rail freight growth target can be designed and implemented to achieve the desired outcome.

A rail freight growth target can be designed in a variety of ways to incentivise growth, depending on what the target seeks to capture. For example, economic and environmental metrics could be designed to enable improved decision making around the value of freight and trade-offs about capacity. This could help enable decision makers to evaluate key infrastructure enhancements, improve capacity and access decisions, inform charges framework, and help drive a longer-term freight strategy.

Below is some key information to support your responses to the questions in Part Two.

- The Office for Rail and Road (ORR) use two metrics to measure rail usage: 'freight moved' and 'freight lifted'¹⁰. A range of other metrics could hypothetically be used to measure rail freight growth (see Table 1). For example, a target measuring economic and environmental outcomes could be designed or a target measuring carbon reduction or modal transfer.
- Scotland's rail freight growth target is measured in thousand net tonne miles and only includes the mileage undertaken in Scotland. It applies for Control Period 6, which is the five-yearly railway funding period from 2019 to 2024¹¹.
- The European Commission's Sustainable and Smart Mobility Strategy has set modal shift targets for the European Union: to shift up to 30 per cent of road freight journeys over 300km to rail by 2030 and to double rail freight traffic by 2050¹²
- A growth target could be designed for the rail network, or there could be separate targets for specific regions.

Irrespective of the design or duration of a future target, GBR and the Government will not have all the levers to deliver it alone. Achievement of a rail freight growth target requires all parts of the rail freight industry to work together with new customers and existing customers to design, develop and deliver the agreed solutions. Appropriate accountability measures need to be in place to ensure all reasonable steps are taken to deliver the target; the ORR are delivering a study exploring how to hold the infrastructure manager to account for a future target.

Title	Metric	Description	Pros	Cons
Economic value	Value of freight £x	To measure the total economic value of all the freight trains that operate	<ul style="list-style-type: none"> ○ Able to measure economic value of freight which could be used to make trade offs and enable enhanced decision making about use of capacity. ○ Able to demonstrate comparative economic value by commodity 	<ul style="list-style-type: none"> ○ Could be difficult to measure and would require new methodology ○ Not currently used or reported by the economic regulator
Modal transfer	Lorry movements avoided	To measure the total number of lorry movements that have been prevented	<ul style="list-style-type: none"> ○ Able to measure carbon savings accurately and links to Net Zero carbon reduction targets ○ Able to demonstrate progress in delivering modal transfer for the addressable road market ○ Able to capture new to rail traffic 	<ul style="list-style-type: none"> ○ To capture additional growth in demand (beyond what runs today), a process would be required to map the HGVs that would otherwise have run (across all commodity types) ○ Does not capture modal transfer from other transport modes (eg from air)
Carbon reduction	Carbon tonnes saved	To measure the total amount of carbon saved by moving goods by rail instead of other modes	<ul style="list-style-type: none"> ○ Able to measure carbon savings accurately and links to Net Zero carbon reduction targets ○ Can be linked to lorry movements avoided 	<ul style="list-style-type: none"> ○ To capture the carbon savings of additional freight volumes (beyond what runs today), a process would be required to calculate the saving based on what would otherwise have run (this would be needed across different transport modes) ○ Target could be achieved without increasing the volume of freight moved by rail through the greater use of bio-fuels or because of future decarbonisation of the rail network
Freight moved	Net Tonne Kilometres	To measure both the volume of goods and the distance travelled	<ul style="list-style-type: none"> ○ Able to capture both short distance flows moving heavy goods (e.g. Construction materials) and longer distance flows carrying comparatively lighter goods (e.g. Intermodal containers) 	<ul style="list-style-type: none"> ○ Not the best representation of short distance and lighter-weight cargo ○ Not able to demonstrate new to rail traffic easily
Freight lifted	Tonnes	To measure only the volume of goods transported	<ul style="list-style-type: none"> ○ Able to capture traffic flows in bulk markets over both short and long distances 	<ul style="list-style-type: none"> ○ Not able to appropriately capture the movement of lighter-weight goods (e.g. parcels) or comparatively lighter-weight goods (e.g. Intermodal containers) which can travel long distances ○ Not able to demonstrate new to rail traffic easily
Freight distance travelled	Kilometres	To measure only the distance the goods are moved	<ul style="list-style-type: none"> ○ Able to capture the total distance travelled by rail, regardless of the weight of goods 	<ul style="list-style-type: none"> ○ Not able to appropriately capture the movement of bulk goods with considerable tonnage volumes that travels over short distances ○ Not able to demonstrate new to rail traffic easily
Total freight trains operated	Trains per annum	To measure the total number of additional freight trains that ran	<ul style="list-style-type: none"> ○ Able to capture additional freight trains that operate on the network, regardless of weight or distance ○ Able to capture new to rail traffic 	<ul style="list-style-type: none"> ○ Could lead to erroneous behaviours of running trains partially loaded (which the metric may not be able to capture) ○ May not incentivise the industry to identify operational efficiencies to run longer and heavier loads, or to maximise the trainload capacity of existing services

Table 1: Examples of the pros and cons of potential rail freight growth target metrics, as described on Page 7

Understanding your views on rail freight growth

- On a scale of 1 (low importance) to 5 (high importance), how important is rail freight growth to you or your organisation?
- On a scale of 1 (highly ineffective) to 5 (highly effective), how effective do you think a growth target will be in incentivising rail freight growth?
- How do you think a target can incentivise rail freight growth?

Understanding your views on measuring a growth target

- Of the options described in Table 1, what do you think is the best metric for measuring a future growth target?
- Are there any other metrics that you would suggest for measuring a future rail freight growth target?
- Over what timeframe should the growth target be set?
- Across what geography should the rail freight growth target apply?
- Should the rail freight growth target be designed to cover all market sectors, or should there be several market-specific targets?

Understanding your views on delivering a growth target

- How can the public and private sector work together better to ensure a future growth target is delivered?
- What is needed from the supply side of the rail industry (commercial operators, GBR and Government) to support the growth of rail freight?
 - What impact would these concepts or actions have on rail freight growth?
 - What are the potential trade-offs (e.g. capacity or access) to deliver these concepts or actions?
 - Which one of these concepts or actions would be most significant from a costs and benefit perspective?

How the responses will be used

The responses to Part One of this call for evidence will be used to create an evidence base for how the industry can seek to grow existing rail markets, develop new rail freight markets, and address the potential scope of modal transfer to rail. This evidence base will be used to supplement our current understanding of forecast rail freight growth. The responses to Part Two of this call for evidence will be used to inform how our growth target options will be designed and the recommendations we will make to deliver them.

Next steps

A summary report of the responses will be published in autumn 2022. It will summarise the key themes, findings, and next steps. Please specify in your response if aspects of your submission should be anonymised in the summary report. Commercially sensitive should be marked as such; it will not be published.

The responses to both parts of this call for evidence will be supplemented by economic modelling and lessons learned from the development of other rail freight growth targets, which will be factored into the next stage of this work. The ranges of scenario assumptions and timeframes of the options are still to be determined. The FOCs and the Rail Delivery Group will continue to be consulted throughout this process, to inform the development of credible and deliverable options. We will present rail freight growth target options to the Secretary of State later this year.

A secondary outcome of this call for evidence will be to facilitate conversations with organisations that would like to learn more about the potential rail has to move freight, as well as to provide a vehicle to drive forward potential quick wins. Future engagement is welcomed.

Thank you for your engagement and input. If you have any questions about this Call for Evidence, please contact RFGTcallforevidence@gbrtt.co.uk.

References

- ¹ Department for Transport, (2016), *'Rail Freight Strategy'*. (webpage)
- ² Mineral Products Association and Rail Freight Group, (2022), *'Building better with rail freight in the West Midlands'*. (webpage)
- ³ Rail Freight Group, (2021), *'Why use Rail Freight?'*. (webpage)
- ⁴ Rail Delivery Group, (2021), *'Value of Rail Freight'*. (webpage)
- ⁵ Department for Transport, (2022), *'Future of Freight: a long-term plan'*. (webpage)
- ⁶ MDS Transmodal, for Network Rail, (2019), *'Rail freight forecasts: Scenarios for 2033/34 and 2043/44'*. (webpage)
- ⁷ Office for Rail and Road, (2022), *'Rail freight usage and performance 2021-22 Quarter 2'*. (webpage)
- ⁸ Mineral Products Association and Rail Freight Group, (2022), *'Building better with rail freight in the West Midlands'*. (webpage)
- ⁹ The Chartered Institute of Logistics and Transport, (2020), *'Routes to Net Zero 2050'*. (webpage)
- ¹⁰ Office for Rail and Road, (2022), *'Rail freight usage and performance 2021-22 Quarter 2'*. (webpage)
- ¹¹ Transport Scotland, (2017), *'The Scottish Ministers' High Level Output Specification for Control Period 6'*. (webpage)
- ¹² European Commission, (2011), *'Sustainable and Smart Mobility Strategy'*. (webpage)