

A Market Development Plan

GBR actions and activities to grow rail freight

December 2022



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Cover Photograph Source: Network Rail

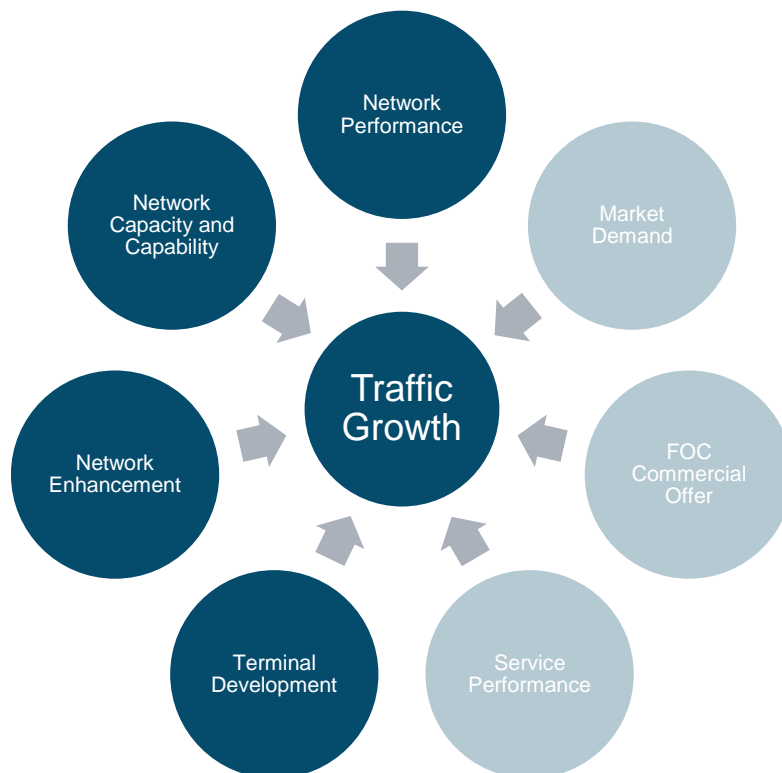
[Cover photograph illustrating the first freight train loading at the newly refurbished Newhaven Marine aggregates terminal]

1 Context

It is customer choice that drives market demand and freight modal choice is primarily driven by economic considerations. A party's use of rail must make economic sense, there is both on-rail offer competition between rail freight operators and inter-mode competition between rail and the primary alternative surface transport mode, road.

Rail freight operators necessarily have a keen eye on resource efficiency (deployment of crew, traction, rolling stock etc) whilst the Great British Railways Transition Team (GBRTT) - and in the future Great British Railways (GBR) - has a fundamental role to play in providing the operating conditions to support an economically robust and attractive rail freight offer; variously through provision of time efficient paths between origin and destination, the provision of traffic appropriate network infrastructure (i.e. loading gauge and axle weight capability), the effective deployment of the freight estate to host traffic generating end user tenants, the development and delivery of a long term strategy for rail that provides network and estate capacity to accommodate growth in freight traffic.

The key contributory components to deliver growth in traffic volumes are summarised in the diagram below, those factors more directly within the influence of GBRTT / GBR are shown in dark blue whereas market and operator determined factors are in lighter blue:



Source: Great British Railways Transition Team

[Diagram illustrating the seven components of rail traffic growth: market demand, FOC commercial offer, service performance, terminal development, network enhancement, network capacity and capability, and network performance]

The UK Government’s plans to reform the rail sector were outlined in the Plan for Rail, in May 2021. The Plan for Rail recognised that rail has a fundamental role to play in supporting economic, environmental and social goals for Britain, and recommended the establishment of a new organisation, Great British Railways (GBR), which will bring together the whole rail system to run the network in the public interest. The Plan for Rail states that GBR will develop a 30-year strategy for the railway industry, framed and driven by five strategic objectives set by government. A summary of the five strategic objectives and the ambition for rail is provided in the following table:

Strategic Objectives	Ambition for Rail
Meeting customers’ needs	Meeting the needs of future passengers and freight customers by: <ol style="list-style-type: none"> Increasing value for money and improving the performance, reliability and convenience of rail, Meeting multi-modal expectations and reducing end to end journey time, Maintaining a safe railway as part of a safe transport system and widening accessibility.
Delivering financial sustainability	Ensuring rail is financially sustainable, efficient and value for money by: <ol style="list-style-type: none"> Reducing costs to government, Ensuring a sustainable balance of fare/fee and government funding, and Increasing the efficiency of operations, asset management and capital investment – delivering on time and budget.
Contributing to long-term economic growth	Catalysing long term economic growth by: <ol style="list-style-type: none"> Reducing total journey time and costs for transport users, Connecting labour markets and realising agglomeration benefits, and Connecting places to markets, directly investing in skills, innovation and digital infrastructure, crowding-in foreign investment and facilitating the housebuilding & place-making agenda.
Levelling up & connectivity	Reducing regional inequalities and improving connectivity between communities by: <ol style="list-style-type: none"> Contributing to long-term economic growth in areas in support of levelling up, Contributing to social benefits from improved connectivity, and Improving rail passenger and freight connectivity across the union.
Delivering environmental sustainability	Supporting government’s environmental sustainability objectives by: <ol style="list-style-type: none"> Encouraging modal shift by increasing the attractiveness of rail, Delivering rail net-zero (traction and infrastructure), protecting biodiversity and addressing air pollution, and Protecting transport links by investing climate adaption.

The provisions of the government’s Plan for Rail see that GBR will have a “...duty to promote rail freight to secure economic, environmental and social benefits for the nation”. To this end GBR will feature a Strategic Freight Unit (SFU) and the GBRTT are already tasked with developing options for the determination of a rail freight growth target, with a view to rail playing a significant role in the achievement of Government commitments to the achievement of Net Zero Carbon emissions by 2050.

The achievement of any target level of modal shift demands the rail freight sector not only consolidates its presence in existing sectors through (1) attracting additional volume from existing rail end users and (2) facilitating new-to-rail volume through existing facilities or on existing services; but additionally (3) expanding the sectoral and geographical extent of the rail freight offer with:

- proactive pursuit of volume from new-to-rail users and in new-to-rail markets
- development of multiple new rail freight interchange facilities to enable greater end user access to rail freight.

Today rail freight holds a circa 9% share of surface market transport¹, but with notable strength in specific sectors such as:

- construction materials: especially into urban areas, for example 40% of London's construction materials arrive by rail
- maritime intermodal: c25-30% of containers passing through the nation's top three container ports (Port of Felixstowe, Port of Southampton and London Gateway) flow by rail
- automotive: rail conveys up to 40% of finished vehicles for export from rail connected manufacturing plants²
- energy: rail has over 95% share of bulk movements of coal and biomass for energy generation and transports significant volumes of fuel oil nationally
- metals: rail accounts for 90% of finished and semi-finished steel movements for rail enabled producers³.

However, road haulage is the dominant mode for the vast majority of domestic trunk haulage and accompanied or unaccompanied ro-ro⁴ movements to and from the continent. Moreover, rail has largely missed the recent exponential growth in Light Goods Vehicles (LGV) movements deployed in the parcels and consumer goods delivery sector.

Plainly, there is an opportunity for rail freight to both further its, still minority, share of existing proven rail markets as well as to penetrate those markets currently near exclusively the preserve of road haulage.

The identification of new-to-rail opportunities will require an understanding of the actual rail addressable market, the inhibitors currently dissuading such prospective end users from choosing rail and the determination of a suite of actions to allow rail freight to make an effective contribution toward the achievement of Net Carbon Zero emissions by 2050.

The following sections outline a framework for how the Strategic Freight Unit within GBRTT / GBR will serve to develop the rail freight market, its position, actions, and activities in promoting modal shift to rail.

¹ Source ORR <https://dataportal.orr.gov.uk/statistics/usage/freight-rail-usage-and-performance/table-1350-rail-freight-market-share/>

² Mini Cowley, JLR Halewood plants.

³TATA steel Port Talbot and Llanwern plants.

⁴ RoRo is short for 'Roll-on, Roll-off', which describes how products are loaded and discharged from a vessel.



Felixstowe: Britain's largest and busiest container Port features intermodal rail terminals providing connections to 16 inland destinations, and is served by the UK's three major rail freight operators: DB Cargo, Freightliner and GB Railfreight

Source: Port of Felixstowe

[Photograph illustrating an intermodal freight train at the Port of Felixstowe]

2 Activity extent and positioning

The extent and nature of the Strategic Freight Unit (SFU) interaction with the rail freight sector and those traffic generating parties outside it, will be founded on a research informed approach to developing rail freight volumes and signposting models to be applied by the SFU to those modal shift opportunities identified.

The GBR internal interactions between the SFU (with its central strategy, policy, freight property and research & development elements) and the regionally focussed freight team members, freight property and delivery organisations must be seamless from the rail freight operator and user perspective.

The SFU will maintain positive and complementary participation with existing players in the rail freight sector, variously mindful to:

- focus on mode-to-mode competitiveness and not in-mode operator or inter-end user competition
- complement and not conflict with any given Freight Operating Company (FOC) or end user commercial initiatives, the SFU's role should serve to create additional opportunities that serve to augment the existing development actions of sector players
- recognise the need to both unlock additional volume from existing rail users and pursue volume through positive outreach to non-rail players
- seek to build mode advocacy through amplifying existing rail players positive experience toward the attraction of non-rail players.

SFU market development activity will be founded on over-arching market research and long-range forecasting and its market informed interventions to stimulate modal shift through the identification of notable new-to-rail addressable volumes and viable interchange facility sites. The delivery of such facilities, assembly of aligned contributory parties to create critical mass for modal shift and the delivery of network capacity / capability are all actions deliberately focused upstream from the business-as-usual service marketing and production activities of operators with their end user customers.

SFU market development activity will be aligned to interact with and inform:

- contemporary national strategic plans concerning rail network capability / capacity developments (including strategy)
- contemporary regional plans concerning network capability / capacity developments
- ongoing terminal and railhead developments (both third party and freight estate)
- traction & rolling stock developments
- decarbonisation; electrification & low/zero carbon freight traction
- ongoing objectives around freight operational optimisation and timetable rebalancing.

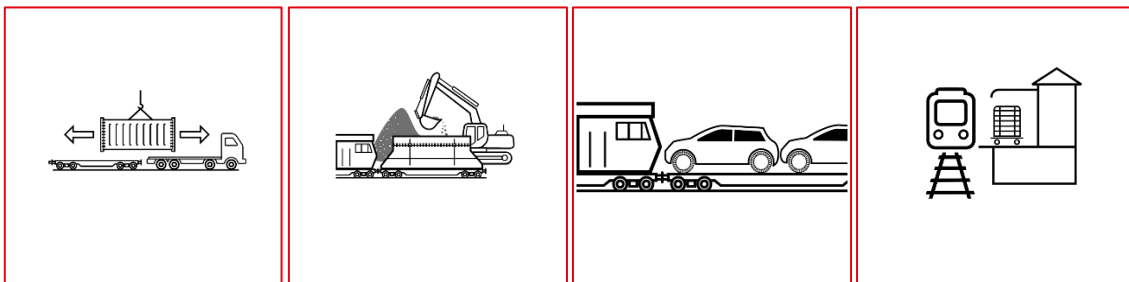
SFU market development activity will be structured around four pillars, namely: **Informing**, **Promoting**, **Enabling** and **Delivering** – essentially the 'how' of SFU activities.

In describing a framework for the SFU's proposed market development activity and actions, this plan explores each of the above four pillars and additionally features an appendix that provides a summary of the headline needs for each of the principal commodity sectors.

Nesting beneath this framework plan will be a suite of accompanying and regularly updated subject specific plans:

1. *freight estate strategy* – the freight estate is a key enabling resource in enabling modal shift, this document encompasses the clarification of the estate's role, its intended deployment, existing proven and potential future models of funding / lease development
2. *commodity digests* – the documentation of understood market need in key commodity sectors (both existing sectors such as construction, intermodal, automotive and emerging sectors such as express freight), the constraints to growth and resultant proposed SFU development actions. Appendix 1 effectively being a condensed preview
3. *scheme plans* – providing outline details of the SFU's evolving set of traffic generating / supporting development schemes in play; a trio of illustrative listings respectively covering 0-24 months, 2-5 years and 5+ years' timeframes for anticipated realisation; providing summary details and benefits of each scheme.

The latter is additionally intended to serve as a freestanding and fluid publication to be revised bi-annually to reflect the continuous process of scheme completion / new opportunity identification. Every listed scheme can trace a line back to a noted requirement of the commodity sector concerned noted in Appendix 1. The scheme plans are essentially the shop window of the 'what', 'where' and 'when' of SFU development activity and action.



Source: Great British Railways Transition Team

Activity extent and positioning: Key commodity sectors detailed in the appendices to the MDP- intermodal, construction, automotive and express freight

3 Informing

To best deliver on Governmental aims in advancing modal shift to rail, the SFU needs to be alert to and informed of the features and dynamics of target market sectors. Equally, so informed, the SFU has a responsibility to effectively disseminate such information both internally within GBRTT / GBR (to raise the level of freight awareness and consideration in decision making in both central and devolved regional organisations) and externally to influence decision making in central and local government and industry.

The SFU will develop this critical market understanding through:

- the commission of refreshed traffic forecasting in the light of 2050 objectives for 2030, 2040 and 2050
- such forecasting activity additionally identifying clustering of population, manufacturing / distribution activity and proximity or otherwise to interchange facilities (so highlighting potential rail addressable opportunity hot spots)
- ongoing direct 1:1 dialogue with manufacturers, shippers, third party logistics (3PL's), retailers; both existing rail users and non-rail users. This highly valued dialogue with such parties will at all times be commercially confidential
- interaction with / membership of appropriate trade bodies for both existing and new market sectors (for example Mineral Products Association, Logistics UK, Make Britain, Institute of Grocery Distribution, Institute of Couriers and so on), to explore macro-market distribution trends.

The SFU will use such market research findings to identify by commodity sector: the scale of the addressable market, likely origins / destinations / axis of new-to-rail traffics, readily addressable clusters of volume, non-rail players of significance and the perceived and actual barriers to modal shift.

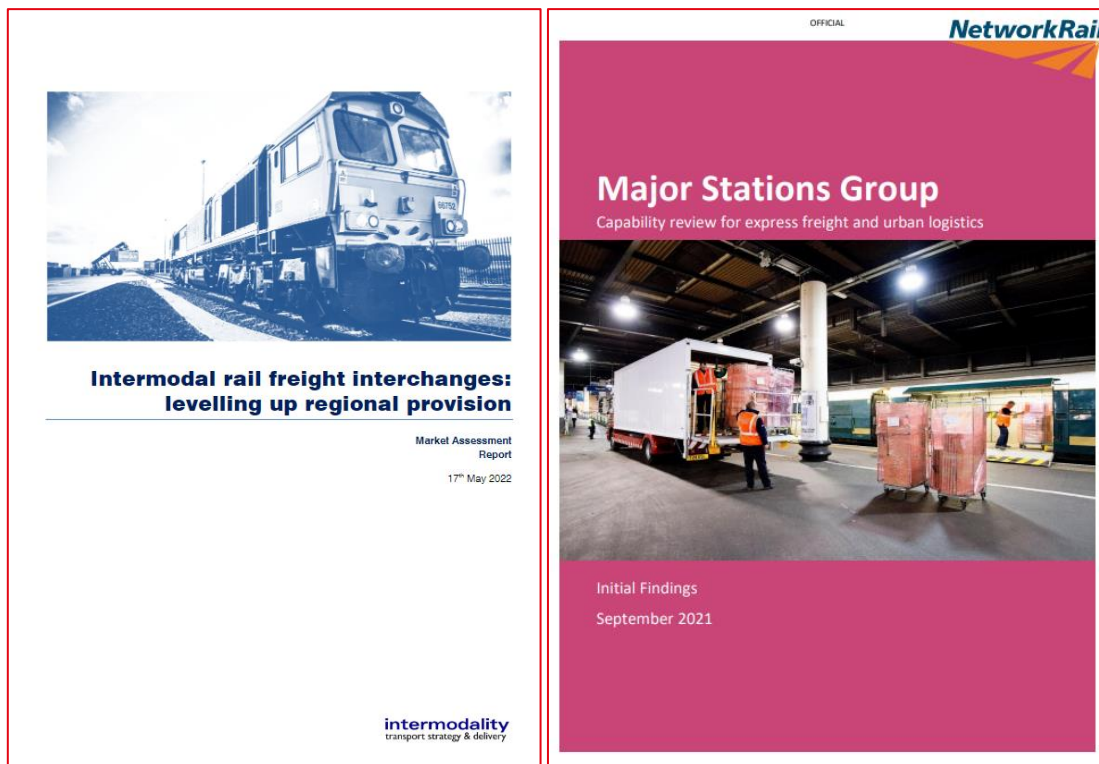
As mentioned above, the SFU will document such research findings in a suite of regularly refreshed, commodity specific, digests that will be readily available to and be peer reviewed by the FOC's respective development teams.

The identification of new-to-rail market opportunities so identified will therefore be transparently shared to ensure equitable traffic competition; the basis of the SFU's planned network and terminal development actions can be understood by the sector from the outset (except in instances where end user commercial sensitivities dictate otherwise) so providing a greater timeframe for the competitive traffic tendering process and associated resourcing and service planning to take place.

The commodity digests will serve to inform the SFU's capacity planning, network enhancement and terminals development proposals, as well as aiding local and national government with an understanding of identified emerging modal shift opportunities and impediments. Importantly, such intelligence will be shared too within GBRTT / GBR to inform regional teams on emerging freight prospects and secure early positive engagement with regions around opportunity development and scheme delivery.

The SFU will serve to act as a commercially neutral source of information regarding rail for the curious, able to give general advice on the functional technicalities and composition of the rail freight offer, routes to modal shift, facility locations, network capacity and capability – signposting to the FOC’s development contacts as appropriate.

Finally, the SFU will further pursue the intelligent interrogation of the railway estate to identify viable plots to host new freight traffic generating / supporting developments. Such opportunities being subject to a greater marketing promotion, with a view to taking awareness of the freight estate opportunity beyond the existing, core, rail conversant audience (greater detail on this may be found in the accompanying *Freight Estate Strategy*).



Informing: Intermodal rail freight interchanges study commissioned by DfT from GBRTT; major stations capability study for express freight led by Network Rail

4 Promoting

The SFU's commercial neutrality means that it is well positioned to take a lead on matters of rail freight promotion, working with operators and end users to develop and deliver consistent messaging around modal shift opportunity and the benefits of rail. The SFU will be able to offer ready explanation of how rail freight works, its potential application to a given interested party's business and derive potential carbon dioxide savings estimates.

Specifically, the SFU would serve to promote the rail freight offer, influence local and central Government, raising mode awareness and helping to expand the population of rail freight end users for operators to do business with through:

- attendance at national industry events, trade fairs, forums, conferences
- maintaining a relevant on-line body of easily navigated 'passive' reference material concerning matters of terminal locations, contacts for operators of same, capacity and capability of key freight arterial routes
- representing the sector in dialogue with / in response to queries from government
- advocating for freight capacity consideration in determinations of network capacity allocation
- aligning with rail freight trade bodies to support consistent messaging and boost campaign effectiveness
- engaging with identified non-rail users of significance (identified through market research and mode out-reach) to understand need and identify rail opportunity
- outreach to Sub-national Transport Bodies (STBs) - or other such local government and regional agencies as appropriate - to articulate modal shift benefits, regional priorities / opportunities in their respective geographies so better informing land use and transport planning policy
- raising the market profile of freight estate opportunities, with higher profile marketing beyond normal rail media channels, especially with a view to broadening the development partner base
- developing a compelling, example led, narrative around carbon reduction (with quantification of carbon dioxide savings by scheme), road de-congestion for promotion within industry and via wider public media plus revenue generation (estate income growth)
- expanding the reach of freight estate marketing to an audience beyond existing, rail conversant, parties.

The SFU's messaging and output should be a useful resource for and complementary to the operator's commercial offer. It should serve to demonstrably increase interest in and take up of the rail freight offer and lead the sector in the promotion of a market credible and persuasive package of strategic and tactical measures.



Promoting: rail freight promotional campaigns led by the Rail Delivery Group (left) and DB Cargo (right)

5 Enabling

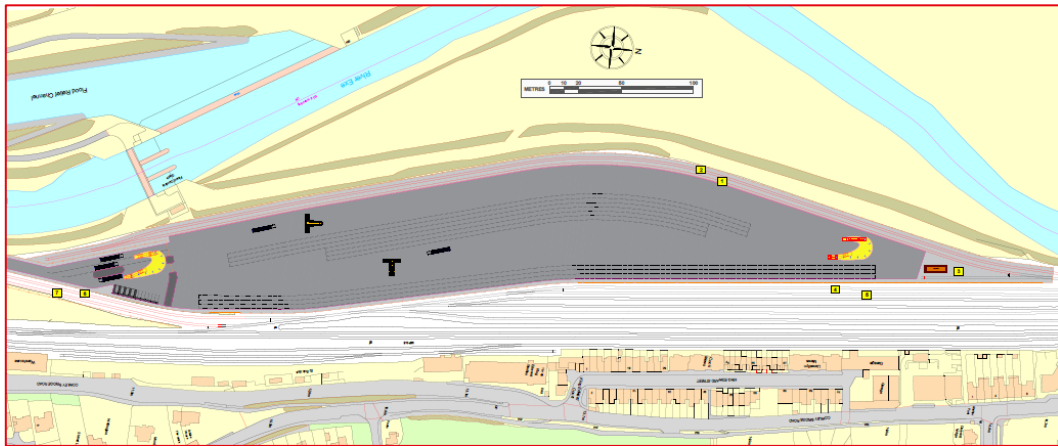
The SFU will not operate terminals nor either operate rail freight services. Its development work sits upstream of a new facility opening or a new service running. In acting as a commercially impartial catalyst the SFU will work with the rail addressable opportunities identified through its market research, to enable the delivery of new terminals or to progress the capacity or capability required to enable a service to operate.

This critical enabling activity would encompass:

- mapping the intersection of Strategic Road Network (SRN) / Strategic Freight Network (SFN) rail networks against identified manufacturing and distribution activity clusters, especially for those areas lacking proximate existing interchange facilities, prioritising same for new facility development
- matching identified end user / operator facility site requirements with railway freight estate location opportunities. Introducing specialist developers as required to realise new facilities
- providing impartial advice to facility owners / operators on development or reconfiguration of their sites to facilitate additional rail traffic volumes
- produce outline facility designs to illustrate terminal rail layouts, both as a service to incoming end user tenants and generally to better ensure optimisation of traffic and tenure on the railway freight estate
- foster contact between identified prospective end users and existing service and/or terminal operators to enable currently untapped, sub-trainload, volumes to rail
- engagement with local authority planning and development teams to raise awareness of existing and prospective freight development locations, with a view to positively influencing future land use zoning policies and highlighting the connection with national planning policy guidelines on sustainable transport
- further develop and implement site tenure and investment model options to prospective end users and facility operators; applicable to both the existing railway freight estate and as a mechanism for its expansion into third party freehold
- engage with in house and external delivery agents to define appropriate specifications and best cost estimates for site rail works. Procure business case assessments to demonstrate value (especially where public funding is sought)
- provide initial point of contact with developers of rail freight facilities on third party land, providing advice and guidance on matters of connection pursuit, network capacity and capability

- procure business case assessments (capturing both socio-environmental and lease income benefits) and pursuit of local / national government infrastructure funding and / or external contributory funding sources for delivery of rail site works
- procure pathing capacity analysis for railway freight estate developments at the earliest opportunity. Moving toward a more integrated offer wherein site selection, site rail design, tenure and site works delivery are progressed in parallel with service operation planning. Securing train paths ceases to be an afterthought.

In complementing the necessary traffic development activities of the operators, the SFU has a pivotal role in enabling the development of the new rail freight facilities and highlighting new to rail prospects – activities that underpin traffic growth and the expansion of the rail addressable market.



Source: *Great British Railways Transition Team*

Enabling: Exeter Riverside Masterplan- prospective location for a south-west IRFI

6 Delivering

The devolved regional organisations possess significant in-house rail design and delivery capability, critical resources for the physical delivery of the site rail works elements of new railway estate facility developments.

As evidenced by recent pilot models where both Eastern and Southern Works Delivery teams have capably produced award winning, cost effective, freight estate facility developments (for example the Darlington Run Round Loop, Newhaven Marine railhead, Lowestoft Sidings remodelling and so on), the success of these schemes brought forward by the freight development team has been down to Route provision of capable and committed sponsorship, with timely delivery at costs that maintain the anticipated economic returns.

Similarly, several significant Strategic Freight Network (SFN) enhancement schemes have successfully concluded over the last five years (for example Trimley Loop, Southampton Train Lengthening Works, Regent Road Doubling and so on). Again, the successful, timely and on-budget delivery has been as much a function of the Network Rail framework enhancement contractor's efforts as the application of competent and committed Route sponsorship, plus the continuous oversight and intervention of the development team as an informed client.

The SFU will continue to act as informed client for all such facility developments and will be seeking to identify high calibre sponsor resource within the regions to maintain cost effective and timely production of freight facilities at an increased rate of output.

With a central freight property function integrated into the SFU, development and implementation of the models of investment and tenure that underpin railway estate facility development will be but another facet of an all-encompassing strategy and development team.

In summary, the SFU will be delivering for rail freight development through:

- production of strategic planning guidance for specific commodity groups or regional geographies
- informing devolved regions' strategic planning teams on the event horizon of potential freight flow and facility developments
- engaging regional sponsorship for physical delivery of identified network enhancement and freight estate facility developments
- acting as an accountable informed client overseeing delivery of SFU defined freight network enhancement and freight terminal developments
- defining the models for tenure and investment deals for use by regional freight property teams with investing end users and overseeing their application
- establish and confer associated access rights to accommodate new-to-rail traffics

- implement access incentives to aide operators or end users taking commercial risk during defined initial new-to-rail service operations.



Source: Network Rail

Delivering: Buxton Freight Sidings Extension- benefitting construction traffic from the Peak District quarries; Andover Yard- benefitting military traffic from Wiltshire

7 Conclusion

In organisationally co-locating freight strategic planning, freight property and freight development functions, the Strategic Freight Unit will encompass the key moving parts related to the identification of the market need for and the planning and delivery of new freight network and freight estate facilities.

This paper has outlined the key actions and activities to be undertaken by the SFU in this regard, with Appendix 1 providing a headline overview of development requirements by commodity sector and the proposed suite of accompanying documents noted in section one, providing transparent detail of market opportunity, development need and the resultant schemes in progression by the SFU.

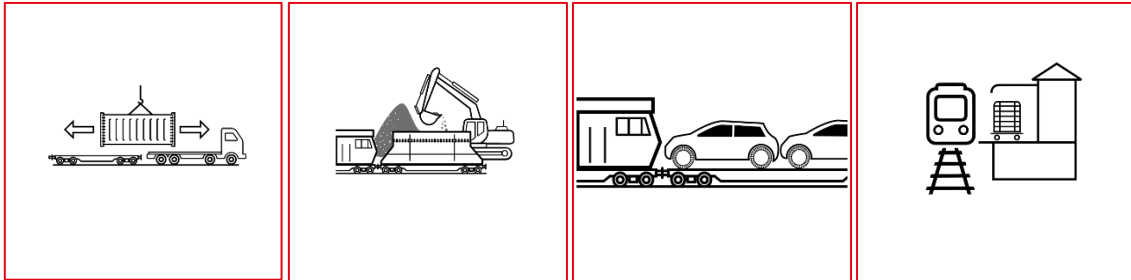


Source: DB Cargo

[Photograph illustrating a DB Cargo locomotive with slogan 'I am the backbone of the economy']

Appendix 1

Summary of actions for growth in key commodity sectors



INTERMODAL

Constraint	Solutions	GBRTT SFU action
Capacity pinch-points frustrating traffic growth	Freightstition	Instigate identification of timetable solutions with relevant strategic planning team for pursuit with DfT
	Network Capacity enhancement	Lead identification of requirements & pragmatic solutions with relevant strategic planning team
Train length capable recess, relief, refuge network locations	Nodal Yards	Freight Development Delivery Group approval
		Engage Sponsor, act as informed client as appropriate
Loading gauge capability limitations	Network Capability enhancement	Identify and apply funding mechanisms
Inland terminal capacity & availability	SRFI development	Support third parties with planning applications
	IRFI development	Engage Sponsor, act as informed client as appropriate to deliver connections
No rolling road / semi-trailer service from CT to London	Development of suitable terminal at HS1 interface in London	Identify gap areas with demonstrable traffic opportunities, identify suitable site opportunities (ideally on NR estate), develop outline railhead design for end user approval
		Identify and apply funding mechanisms
Terminal train length constraints	Revised operations, terminal siding or terminal connections enhancement	Market for development / operational tenure
		Engage with development agencies / LA
Terminal train length constraints	Revised operations, terminal siding or terminal connections enhancement	Identify suitable railhead, introduce interested parties, outline site design, identify development deal
		Identify layout or operational solutions
Terminal train length constraints	Revised operations, terminal siding or terminal connections enhancement	Identify and apply funding mechanisms
		Devise and pursue enhancement work as necessary

CONSTRUCTION

Constraint	Solutions	GBRTT SFU action
Frustrated demand for additional railheads in London, SE, and principal cities	Proactive interrogation of railway estate to intensify tenure on existing sites and identify viable new site opportunities	Identify estate development opportunities (ideally on NR estate) develop outline railhead design for end user approval Identify and apply funding mechanisms Market for development / operational tenure
Capacity pinch-points	Freightstition	Lead identification of requirements & pragmatic solutions with relevant strategic planning team FDDG approval
	Jumbo operations/ double consists, Super Singles, optimising payload per path	Engage Route Freight Team in pursuit of SPR application
	Network capacity enhancement	Lead identification of requirements & pragmatic solutions with relevant strategic planning team FDDG approval Engage Sponsor, act as informed client as appropriate Identify and apply funding mechanisms
	Layover / stabling facilities for end user wagon sets	Identify suitably accessible yard locations, develop outline design Identify and apply funding mechanisms
Terminal train length constraints	Revised operations, site siding or site connections enhancement	Identify layout or operational solutions Identify and apply funding mechanisms Devise and pursue enhancement work as necessary for 20 wagon (Single train) or 26 wagon (Super Single train) consists
HAW speed limits supressing service velocity	Targeted works to Network civils / structures	Engage Route Freight Team, identify structures, works required Identify and apply funding mechanisms
Adjacent residential development threatening operational viability of railhead	Defend railway land use & permitted development rights	Support Route property and planning teams in positive, consistent, representation to local authorities to support end user tenants
Capacity of exiting rail enabled quarries and wharves now falling behind volume demands of developing rail terminal system	Enhanced payloads per train from existing origins	Identify opportunities to reconfigure sites to enable longer train operation Engage Route Freight Team in pursuit of SPR application
	Rail enabling of additional quarry / wharf facilities	Identify connection installation / reactivation opportunities at quarries and ports Identify and apply funding mechanisms

AUTOMOTIVE

Constraint	Solutions	GBRTT SFU action
Optimise current train lengths (680 - 1500m)	Enhance origin railhead layout & capability	Identify opportunities to reconfigure sites to enable longer train operation Identify and apply funding mechanisms
3 x key UK OEM production sites lack rail	Rail connect or promote proximate rail site option	Lead dialogue & development with OEM's & facility developers
Loading gauge limiting scope for component supply from continent in mega-cube units	Investigate gauge reality CT Classic route & HS1 trailing load limits	Lead gauge solution identification Identify and apply funding mechanisms
Opportunities for battery supply to OEM manufacturing sites	Rail enabling new Giga plant locations	Investigate proposed Giga plant locations with a view to railhead / terminal options

EXPRESS FREIGHT/URBAN LOGISTICS

Constraint	Solutions	GBRTT SFU action
Need for suitable micro-intermodal equipment	Engage with 3PL's on equipment design	Inform rail related design requirements and if necessary, provide leadership
Need for urban interchange railheads	Co-location of express freight activity at major stations Co-location of express freight activity at existing urban heavy freight sites	Identify and promote capacity and capability at major stations Identify and promote capacity and capability at existing urban heavy freight sites Identify layout or operational solutions Identify and apply funding mechanisms
Need for rail enabled urban distribution space	Proactive interrogation of railway estate to identify viable new site opportunities	Identify sites for development of rail enabled urban distribution space and /or station options Identify and engage investing developer partners