The Chartered Institute of Logistics and Transport

Reviewing Infrastructure Investment

Maximising its Purpose and Value

Executive Summary

Economic growth is an urgent imperative for Britain, but the importance of freight and logistics as a driver of higher productivity and improved trade links - key generators of economic growth - is often overlooked. This paper sets out how the sector can be exploited to achieve economic and policy objectives.

Freight and logistics is an entirely private sector activity but is dependent on public sector infrastructure for its road and rail operations. There are clear deficiencies in these infrastructure systems which impede productivity and trade connectivity.

It is imperative that the limited public investment funds available deliver the maximum economic benefits as quickly as possible. Greater rigour needs to be applied in how investments are prioritised to ensure maximum value is obtained. Planning for long term growth is strategically important but in the short to medium term funding should be concentrated on projects that deliver maximum returns for UK plc. Projects with the highest Benefit to Cost Ratios (BCRs) should be prioritised**.**

This has not been the case in the past. Many projects e.g. rail freight schemes, with excellent BCRs (in excess of 4) have not been approved when, at the same time, schemes in passenger rail and other transport sectors with poor BCRs (less than 1.5) have been authorised.

The priority should be enhancement of key rail routes from major ports and quarries to facilitate modal shift of long-distance trunking to rail. This can deliver substantial benefits in improved productivity, better international trade links and a more resilient construction sector. It would also contribute towards decarbonisation and better air quality (and thus reduced health care costs), along with making a significant contribution to achieving Government's 5 key Mission Statements.

Project evaluation is in need of change. Currently, the Rail Enhancement Programme (RNEP) ignores smaller projects, leaving them without an obvious route to authorisation and delivery. Such schemes, however good a Benefit to Cost Ratio they might have or how straightforward they are to deliver, never get on to the policy and planning radar screen.

Recent investment in infrastructure has seen very extended delivery. We believe the emphasis going forward – and certainly for the course of this Parliament – should be on schemes that can be delivered within 3 years from authorisation to delivery. Alternative

delivery processes, such as a contractor-led approach, may well save time and money compared with the current model.

The focus should be on small to medium scale schemes rather than the “mega” projects of recent decades.

Recommendation 1

A list of projects ranked by their Benefit Cost Ratios (BCRs) should be the key determinant of how public funds are allocated.

Recommendation 2

Projects should be prioritised according to their contribution to growth, decarbonisation and the other Mission Statements set out by Government.

Recommendation 3

Authorise Top 10 high-BCR Rail Freight schemes:

Scheme	Est BCR	Est Cost	Est timescale
London Gateway electrification	**6+**	**<£10m**	**<12 months**
Wakefield/Leeds electrification	**4.5**	**£35m**	**18-24 months**
Nuneaton-Birmingham electrification	**4**	**£50m**	**2-3 years**
Felixstowe branch electrification	**4**	**£20-25m**	**18-24 months**
Willesden electrification	**5**	**£10m**	**12-18 months**
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Wider TransPennine gauge enhancement	**4.5**	**£20-25m**	**18-24 months**
Haughley Junction capacity	**5**	**£10m**	**12-18 months**
Ely capacity	**4**	**£400m**	**3-4 years**

Recommendation 4

Infrastructure investment over the course of this Parliament should concentrate on small to medium size schemes that can be delivered to time and to budget. The target timescale should be closer to 25 months rather than 25 years.

Introduction

Economic growth is an urgent imperative for Britain. Whilst generating growth is a complex and multi-faceted issue, involving *inter alia* fiscal stimuli and the encouragement of innovation, it is inescapable that higher productivity and improved trade links are key contributory factors. The importance of freight and logistics as a driver of these key factors is often overlooked and this paper sets out how the sector can be exploited to achieve desired outcomes. Our submission is based upon the collective practical expertise of the Chartered Institute of Logistics and Transport (CILT), the leading professional Institute for this sector.

Logistics and transport is an entirely private sector activity and one in which the UK is an acknowledged world leader. Considerable institutional investment from UK and overseas funds has been, and continues to be, made in the sector. It is highly competitive and this drives innovation and productivity, as operators strive to increase efficiency and margins. Alongside efficiency and price, customers are now also driving sustainability in freight and logistics as a key element of decarbonising their supply chains.

Although the sector is a private sector activity and provides a significant element of its own infrastructure, such as ports, intermodal terminals and warehousing, it is dependent on public sector infrastructure for its road and rail operations. There are clear deficiencies in these infrastructure systems which impede productivity and trade connectivity.

At a time of financial stringency, it is critical that maximum value is derived from scarce public resources, so a fresh and clear approach to infrastructure enhancements is required. We, therefore, welcome the review of the capital budget for transport. As well as delivering the maximum economic benefits as quickly as possible, transport infrastructure enhancements of the right kind can also offer improvements and gains that assist other policy areas, notably productivity, trade links and uneven regional economic performance.

Background and Current Trends

Road haulage is essential for urban and regional deliveries and there are a number of tactical measures which would improve efficiency and productivity in this area. These relate mainly to changes to the planning system to enable urban logistics facilities to be developed and kerbside deliveries improved.

We would, however, highlight long distance trunking as the area which contains the greatest scope for improving productivity and trade links. Modal switch of trunking from road to rail is the key feature of such improvement since, depending on the commodity being moved, one train carries the equivalent of 50-75 HGVs. Indeed, some 'super trains' move the equivalent of 135 HGVs. Even at the lower end of the range, one train driver is doing the work of 50 HGV drivers and, allowing for a handful of rail operations and terminal staff for loading/unloading, a c.10-fold improvement in productivity can be generated by modal shift.

The underlying shortage of HGV drivers is likely to re-emerge as the economy picks up, since a significant proportion of road trunking relies on 'tramping' - drivers being away from home, often all week, and sleeping in their cabs at the side of the road without access to a toilet or other basic facilities. Unsurprisingly, younger people - and especially women - regard this lifestyle as unacceptable and an ageing workforce of older men (many of whom are ex-Army and used to 'roughing it') will inevitably diminish, with potentially serious consequences for supply chain efficiency.

In contrast, daily 'out and back' driving from a local depot, giving time at home with family and friends, is a more attractive proposition. Modal shift of trunking to rail to eliminate tramping would allow the available HGV driver workforce to be concentrated on local and regional deliveries, thus make road haulage more economically sustainable and socially acceptable. Given that electric HGVs are a viable option for local and regional distribution, in a way they are not for long distance trunking, it would also improve the environmental sustainability of supply chains and reduce transport sector emissions, which are otherwise likely to prove intractable.

Modal shift has particular relevance to the UK's international trade links. Around a third of deep sea containers moving through Britain's ports are carried by rail and this is capable of very significant increase - probably doubling. A shortage of HGV drivers, as occurred during COVID, quickly leads to the main container ports becoming congested and UK manufacturing plants having to stop production, as key components are stuck at ports. Modal transfer to rail would reduce this risk to national output by allowing containers to move to inland terminals, close to points of production, from where local road movements could be more reliably resourced.

The substantial private sector investment in new port capacity which DP World is making at London Gateway is a major strategic enhancement in transport and logistics, but the impact of this on land transport in the South East has yet to be fully appreciated. The first stage of the substantial volume growth this will bring commences in March 2025, when Maersk/Hapag Lloyd's key Far Eastern services (the Gemini Alliance, which will convey a large proportion of UK imports from China) transfers from Felixstowe. The Gemini transfer involves roundly 1 million containers a year, or 4000 container movements each working day and almost all the containers that move by road will use the already-congested north east quadrant of the M25.

Each of the 5th and 6th berths that DP World has now committed to are likely to generate the same amount of container movements on the over-stressed M25. The consequences of this for supply chain efficiency are likely to be unpalatable and modal shift of as many containers as possible to rail would ease the pressure significantly. In addition, road haulage is much harder to source - and more expensive - around London than in rural Suffolk, due to the shortage of HGV drivers and the higher cost of operation in a congested region. This will inevitably impact on UK supply chain cost and efficiency unless significant modal shift can be facilitated and encouraged.

As well as deep sea containers, short sea containers - which form a key element in European supply chains - arrive at East Coast ports such as Tilbury, Purfleet and the Humber. HGVs from Tilbury and Purfleet use the same road routes as London Gateway traffic – essentially the M25 - and further increase pressure on the road infrastructure. The greater efficiency and resilience modal shift to rail brings to deep sea container movements applies similarly to short sea units.

It is also worth noting that the proposed Lower Thames Crossing would feed even more traffic onto the same sections of the road network and is thus of questionable strategic value. The dramatic expansion of London Gateway suggests that the Lower Thames Crossing could cause the north east quadrant of the M25 to become very seriously overloaded.

Investment Priorities

Recent times have been characterised by very large "mega" projects, costing billions of pounds and taking a decade or more to deliver. Whilst acknowledging that such projects will contribute to the long-term economic prosperity of the country, it is beyond doubt that they have cost too much. Too many have been over time and over budget: comparable projects in Europe and elsewhere have been delivered for less. Significantly, Scotland has also delivered smaller projects to time and to budget. A root and branch review of delivery systems used in England and Wales is thus overdue.

The current financial situation demands a fundamentally different approach, particularly as we assume expenditure on committed projects, like HS2 between Birmingham and Euston, which are currently being delivered, will continue. Indeed, it is essential that a viable link is forged between HS2 and the West Coast Main Line (WCML) to avoid creating a major bottleneck at Colwich, caused by the previous government in abandoning Phase 2a without thought to key link with WCML.

We consider a much-reduced link using the HS2 trace from Fradley to Hixon, on the Colwich to Manchester line, to be the minimum viable option. This should be designed with passive provision for a later extension to Norton Bridge, north of Stafford, and potentially onward to Crewe and Manchester. The link would allow trains from London and Birmingham to Manchester to avoid the Colwich bottleneck and a thrombosis on the UK's main trade axis. It would create capacity for other WCML passenger services and freight growth, which is essential to the realisation of Government's 75% Rail Freight Growth Target.

Value for Money

It is clearly imperative that the limited public investment funds available deliver the maximum economic benefits as quickly as possible. It is also useful if:

i). Such benefits accrue earlier rather than later

ii). It encourages private investment to materialise in the wake of public funds being allocated. A partnership approach, where appropriate, should be considered

iii). It contributes to decarbonisation and to the accomplishment of Net Zero - the transport sector is still the worst culprit in the level of emissions and this has to change.

iv). It encourages skills development and the deployment of proven green technology.

We consider that the current restrained financial climate means that greater rigour needs to be applied in how investments are prioritised, to ensure maximum value is obtained. Planning for long term growth and the strategic context is important and must not be ignored but, in the short to medium term, funding should be concentrated on projects that offer and deliver maximum returns for UK plc.

We believe that projects with the highest Benefit to Cost Ratios (BCRs) should be prioritised. Thus, we would recommend:

Recommendation 1

A list of projects ranked by their Benefit Cost Ratios should be the key determinant of how public funds should be allocated

Recommendation 2

Projects should be prioritised according to their contribution to growth, decarbonisation and the other Mission Statements set out by Government.

This has not always been the case. Many projects, e.g. rail freight schemes with excellent BCRs (in excess of 4), have not been given the go-ahead when, at the same time, schemes in other transport sectors with poor BCRs (less than 1.5) have been authorised. We were surprised to learn that many of the current strategic road schemes, notably the Lower Thames Crossing and the A66, have such low BCRs - we understand the A66 has a BCR of less than 1. Whilst other factors should be taken into account, it is difficult to comprehend why projects with three times the value to the UK have been ignored.

Project evaluation needs revision. The Rail Network Enhancement Programme (RNEP) ignores smaller projects, leaving them without an obvious route to authorisation and delivery. Such schemes, however good a BCR they might have, or how straightforward they are to deliver, never get onto the policy and planning radar screen.

Thus, for example, a programme of infill rail electrification would, by closing small gaps in the electrified network, improve considerably the ability of freight operators to grow the rail freight market. It would use proven green technology and encourage private sector investment in growth and modal shift – freight operating companies are prepared to invest hundreds of millions of pounds in powerful new electric locomotives, but cannot do so without a coherent electrified network on which to operate them.

Crucially, the greater haulage capability of electric locomotives allows more train paths to be extracted from a specific route than would be the case with slower, less powerful, diesel locomotives. There is thus a tangible and quantifiable benefit from electrification of key

freight routes such as those leading from London Gateway, Tilbury and Felixstowe, plus across the Pennines between the East Coast and Liverpool.

Similarly, small capacity enhancement schemes removing bottlenecks on routes leading from major quarries would deliver significant strategic and economic benefit. Construction materials from these quarries will play a fundamental role in the building of new towns and major housing developments, which are a key element in economic recovery. Sand and gravel reserves close to urban areas are now largely exhausted and it is estimated that, by 2035, an additional 42 million tonnes of aggregates will need to be moved from remote quarries and coastal wharves. Road haulage is not an option for such volumes and without high-capacity rail links a shortage of construction materials to meet house building targets in urban areas is likely to result, along with construction sector price inflation.

To address the above opportunities, our recommended top 5 high-BCR rail freight schemes would be:

Recommendation 3

Authorise Top 10 high BCR Rail Freight schemes:

Scheme	Est BCR	Est Cost	Est timescale
London Gateway electrification	**6+**	**<£10m**	**<12 months**
Wakefield/Leeds electrification	**4.5**	**£35m**	**18-24 months**
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It may be that elements of controversial road schemes, like the A303 Stonehenge Diversion and the A27 Arundel By-pass, might be worth pursuing and provide a better BCR than the full schemes. This could include a by-pass around Winterbourne Stoke and completion of the grade separated junction at Crossbush (Arundel).

Scale and Urgency

A feature of recent investment in infrastructure has been very extended delivery. The TransPennine Route Upgrade (TRU), for example, is taking over 15 years from initial approval to implementation in the early 2030s and nearly 25 years to its final completion in the early 2040s (assuming the existing schedule is kept). The delivery schedule lacks urgency and does not encourage alacrity of benefit delivery.

We believe the emphasis going forward, and certainly for the course of the current Parliament, should be on schemes that can be delivered within 3 years from authorisation. This should ensure that infrastructure enhancements contribute to key imperatives, notably economic growth, far more quickly than in the recent past.

Delivery agencies, such as Network Rail and Great British Railways in the future, should be required to accelerate and streamline project delivery. It may well be that alternative delivery processes, such as contractor-led delivery, can save both time and significant money compared with the current model.

The focus should be on small to medium scale schemes rather than the "mega" projects of recent decades, viz:

Recommendation 4

Infrastructure investment over the course of this Parliament should concentrate on small to medium size schemes that can be delivered to time and to budget. The target timescale should be closer to 25 months rather than 25 years.

Conclusion

Transport investments can contribute enormously to economic growth through:

i). improved accessibility;

ii). better connectivity;

iii). higher productivity;

iv). better health through less pollution; and

v). encouraging and enabling the development of "green" technology

Transport's contribution to the achievement of key policy objectives should be recognised and reflected in funding allocations. The investment priorities that we are advocating would offer a significant and substantial contribution to the 5 Mission Statements and the Milestones leading to them.

We believe that far greater value can and must be achieved from the money invested. The key to achieving this is to focus primarily on small-scale schemes with good Benefit to Cost

Ratios that benefit the criteria of economic growth, improved accessibility, better connectivity and enhanced productivity.

Projects should be ranked. Those that deliver quickly should be prioritised to ensure benefits are delivered as soon as possible. This can be facilitated by a radically different approach to project planning and delivery, with much greater urgency and a clear sense of alacrity. Contractor-led delivery may help to achieve this. Planning for longer term projects can and should continue, but the emphasis should be on small to medium scale schemes that help the UK economy to grow through the 2020s.

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