RAILFUTURE RESPONSE TO NATIONAL INFRASTRUCTURE COMMISSION
RAIL NEEDS ASSESSMENT FOR THE MIDLANDS AND THE NORTH – CALL FOR EVIDENCE FOLLOWING INTERIM REPORT

Contribution from Railfuture East Midlands Branch – August 2020

National Infrastructure Commission | Rail Needs Assessment for the Midlands and the North - Interim report **https://www.nic.org.uk/wp-content/uploads/RNA-Interim-Report-Final.pdf**

Introduction:

The Railfuture response dated 29th May 2020 to the first round of this consultation https://www.railfuture.org.uk/display2324 placed considerable emphasis on freight.

In contributing to the August call for evidence, we in East Midlands Branch:

- Re-submit our May 2020 Rf EM Branch submission for previous NIC RNA call for evidence. This is on pp6-15 below in red text with a few subsequent additions in blue.
- Attempt to answer the NIC's broad questions Q1 to Q4 below.

References are to the pages and tables in the NIC's Interim Report (see header.)

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Question 1: Please provide specific sources for evidence that the Commission could use in estimating costs and the impact of proposals on journey time and capacity.

For schemes already proposed other than by Railfuture, such as those listed on p36, much information is already available from Network Rail, SNTBs (TfN, Midlands Connect), local and combined authorities, TOCs, DfT. Campaign organisations.

For additional schemes put forward by Railfuture, further work would need to be done, though campaign groups such as SENRUG, SELRAP, MEMRAP and CRIL may have initial estimates for specific lines or areas. Studies to be funded through the DfT *Restoring Your Railway* initiative will provide some of this information.

Question 2: Given the evidence for how transport impacts growth and competitiveness, is assessing against the Commission's proposed criteria of productivity, connectivity, and unlocking investment in land around stations a reasonable approach to estimating the impacts of proposed rail investments? Please provide links to any specific sources of evidence you think that the Commission should use to support this methodology.

Yes, it is a reasonable approach.

However, while acknowledging that local transport is out of scope (para 1.2, p16), the NIC must take due notice of the fact that few journeys are from station to station. They are from, for example, home to office, or home to retail. 'Last-mile' connectivity must be factored in, at least to some degree, in assessing rail demand and benefits. Network Rail's recent announcement* on developing a partnership with Cycling UK is relevant here. The NIC is right to exclude other modes that compete directly with rail for the primary purposes of rail (journeys into and between cities).

We welcome the NIC's recognition of agglomeration and rail's role in connectivity within clusters of cities (p24) such as Nottingham/Derby/Leicester; Leicester/Coventry/Birmingham; Liverpool/Manchester/Leeds.

(p24): We note and welcome the reference to the contribution made by universities to the life of cities, including the benefit of 'knowledge spillovers'. University students make up a significant proportion of rail passenger business. Given that, we suggest that Annex A on p49 should include reference to Loughborough and Birmingham University stations, though we note the stated population threshold of 150,000.

* http://www.railtechnologymagazine.com/Rail-Industry-Focus-/network-rail-partners-with-cycle-uk-for-new-initiative-?utm_source=Rail%20Technology%20Magazine&utm_medium=email&utm_campaign=11725789_Newsletter%20template%203%20August&dm_i=IJS,6ZBOD,PKSI55,S4201,1

Growth in commuting (p27) will be halted for a time at least by Covid-19; maybe permanently. However, there is likely to be more part-time commuting and more flexibility in working hours, plus a possible trend towards a more 24/7 society. This may spread demand away from the traditional Monday – Friday peaks.

(p31): Facilitating trade between cities. This should include rail provision for light freight (parcels and pallet-loads), which used to be a major rail business sector but are almost absent today. This is especially so given the massive growth in 'white van' traffic associated with online shopping. (Courier firm Hermes has reportedly announced that it is creating 10,000 jobs). It is also possible to combine such business – at least to an extent – with high-speed passenger trains, offering fast transits, low carbon emissions, and city-centre penetration.

(p33): We support the interesting summary of the user and non-user beneficiaries of rail investment.

(p34): We welcome the recognition of the spread of benefits to the rail-connected towns surrounding successful cities. Likewise, recognition of the adverse effects of the Beeching cuts on disconnected towns etc.

We support the 'package' approach to investment options (p35, p38). This implies a degree of prioritisation of schemes to determine whether they fall within the options for the 'NIA consistent' baseline cost (spending) profile, +25%, and +50% respectively. We support this as a realistic approach.

(p35): We support wider evaluation of benefits than conventional Cost:Benefit Analysis, and the NIC's intention to '*focus on the potential benefits rail can bring, which may or may not be realised depending on other factors*'.

(p35): Selection of options - identification of strategic rail proposals. See previously submitted Rf EM list, from page 6 of this document below, in red text (with subsequent additions in blue). However, we are unable to provide 'plausible cost estimates' for these as requested in the bullet at the top of p36. Refer back to Question 1 above.

(p37): We support recognition of past cost overruns on rail schemes and the NIC's intention to '*undertake further analysis of optimism bias'*. Rail capital schemes are often eye-wateringly expensive and need to be brought under control. (The Elizabeth Line, for example, will now cost what it costs, no matter what that is!)

(p37): We support the NIC's statement that funding for rail maintenance and renewals must be protected.

(p38): We note the comment that '*While important, rail accounts for less than 10 per cent of total journey miles*'. A major aim of the whole exercise must be to increase that percentage!

(p39): We welcome the statement that '*Packages will take Control Period 6 (Network Rail's five-year financial plan for 2019-2024) commitments in the North/Midlands into consideration, but the investment is assumed to be committed so they will not be included in the packages' funding envelope*.' (Assuming this means that the packages will refer to additional funding beyond existing committed CP6 schemes.)

(p41, Table 3.2):

- We support this approach, but for Connectivity would add '…to other regions of the UK' (to make e.g. the South West and Wales more specific than 'the rest of the world'!).
- We agree with '*Unlocking investment in land around stations*' (p41, p44). Many stations were built in Victorian times and are therefore located in 'older' parts of many towns and cities, where economic activity may have shifted away, e.g. through continuing loss of manufacturing industry. Unlocking land around stations both helps with regeneration and reduces the need for 'last mile' travel options, as the station becomes the effective origin or destination rather than an interchange point in a longer multi-mode journey.

(p41): Productivity: We welcome the recognition of agglomeration benefits and rail's contribution to these.

(p42): Connectivity: This seems a reasonable approach. It would be interesting to see the outcome of the formula in Box 3.2 for many journeys between the East Midlands and the North West, such as Derby – Manchester (or even Matlock – Manchester!)

SOURCES OF EVIDENCE? – Refer back to Q1 above.

Rf EM Branch - examples of transport investment enhancing productivity, business turnover, inward investment, etc:

1. *'The M69 (Leicester to Coventry) was completed in the late 1970s. Prior to that, a journey by car (rail was irrelevant then) using existing roads, took at least two hours on a good day (city centre to city centre). The M69 reduced that to about one hour. My company (a management consultancy), based in Leicester, roughly doubled its turnover during the three years following M69 completion and nearly all the additional business came from the Coventry, Leamington, Warwick triangle.'*
2. *Reference could be made to the success of the Birmingham Cross-City line. In the 1950s, living in Barnt Green, there was really no alternative to car-driving into Birmingham. The Cross-City line completely changed that.*
3. *Leicester City Council is intending to launch a public consultation on urban planning around Leicester station: https://consultations.leicester.gov.uk/communications/urban-planning/. (This local plan consultation has been put on hold until 'later in the year' (2020) because of the Covid-19 pandemic.)*
4. *Greater Nottingham Strategic Plan consultation: http://www.gnplan.org.uk/gn-consultation/greater-nottingham-strategic-plan-growth-options-consultation/.. Consultation closes 14th September 2020.*
5. *The intended Development Corporation for new investment (industry and warehousing?) at Toton and, we hear, may include the Radcliffe-on-Soar Power Station site, will benefit from good transport infrastructure (heavy rail and tram) regardless of HS2 being completed. In fact, the local investment will start way before HS2 is likely to be completed. The EM Airport area is already an employment and distribution 'hot spot' and hopefully the opportunities will increase - we should be pushing for good public transport links, both longer distance and local. In making this comment, we note the alternative HS2 eastern arm proposal put forward by Greengauge 21, aspects of which we support.*

Question 3: Given the evidence for how transport impacts sustainability and quality of life, is assessing against the Commission's proposed criteria of amenity benefits, impact of rail freight, natural capital, and lifecycle carbon emissions, a reasonable approach to estimating the sustainability and quality of life impacts of proposed rail investments? Please provide links to any specific sources of evidence you think that the Commission should use to support this methodology.

Yes, it is a reasonable approach.

Once the immediate Covid-19 crisis has passed, climate change will reclaim its place at the top of the political agenda. Decarbonisation will be a major factor in 'building back better'.

(p39): We agree with the intention that '*The Commission will consider whether this should also include decarbonisation schemes to fit with the government's commitment to achieve net zero greenhouse gas emissions by 2050, and digital signalling*'.

Quality of life: quite right. The unreliability and poor quality (e.g. overcrowding) of many Northern rail services, for example, contribute significantly to an unnecessarily poor quality of life for those who depend on them.

(p41, Table 3.2, p44):

- We support this approach for sustainability and quality of life. Railways are about more than 'mere money'.
- Amenity benefits. Agreed, but many amenities, especially leisure and retail, plus new hospitals, have moved out of city centres and thus away from rail access in many cases. This

may be cause-and-effect: because the city centres may currently be difficult to get to, locating a new development on the outskirts near the ring-road or bypass is attractive. However, such places are largely inaccessible to those without cars, and there are few agglomeration or clustering benefits. How will the NIC factor this in?

- Freight is a major factor in quality of life, including congestion and carbon emissions. Lorry traffic is detrimental to many people's quality of life, in towns and villages and alongside major roads – as well as for other road users including car drivers, pedestrians and cyclists. Rail is woefully under-utilised for freight, especially light freight (parcels and pallet-loads). It is quite right to consider the impact of rail freight. However, this analysis must go well beyond '*the potential impact of rail freight on congestion at key bottlenecks on the rail network*' (p44), crucial though that is, especially at Castlefield in Manchester.

  (p45): We welcome the intention to '*assess the freight impacts of different interventions on the network by quantifying the impact on congestion and carbon emissions of freight being moved by rail rather than road, particularly at bottlenecks or around ports and distribution centres*'. This is of particular relevance in the East Midlands M1/M6/M69 'Golden Triangle' of distribution centres, where rail could make a much greater contribution in intermodal transport – though we note recent progress including DIRFT and SEGRO East Midlands Gateway.

  The Covid lockdown has accelerated the trend towards online shopping, which means further growth in 'white van' road traffic. The NIC should consider the potential for post-Covid repurposing of rail to place greater emphasis on lightweight (non-bulk) freight (parcels and pallet-loads), which could be accommodated at least in part on passenger trains.

  (p45): '*The methodology will not consider the impact of changes in volume of rail freight on economic growth and competitiveness. This is due to uncertainty in projecting volume changes over time, and because any reduction in the volume of rail freight is likely to be offset by an increase in road freight at a similar price*.' Why the reference to reduction in rail freight, as opposed to possible increase in rail freight?

  It would be interesting to quantify the effect on emissions of freight trains – especially heavy freight trains – having to decelerate and accelerate as a result of being looped rather than being allowed to proceed unhindered, or having to observe very low speed restrictions. For example, how much additional emissions are made by freight trains going south through Leicester station at the present 15mph line speed and then having to accelerate on a rising gradient towards Wigston North Junction, by comparison with what they would make if the running lines were upgraded for, say, 60mph running? Similarly, the decarbonisation implications of diverting bulk quarry traffic off the Hope Valley Line if the direct 'Peaks & Dales Railway' south through Matlock were reopened. (We understand that these are already subject to separate study.)

- Natural capital. We support this. The Covid pandemic has awakened public awareness of the value and benefits of the natural world and the need to protect and nurture it. This does not have to be incompatible with infrastructure investment if proper provision is made for habitat enrichment and wildlife corridors.

- Carbon emissions. This is fundamental in the case for rail, whose 'green' credentials are widely acknowledged but where the automotive sector is making major perceived advances. However, cars have a relatively short life and their manufacture involves high levels of carbon emissions; batteries involve environmentally detrimental mineral extraction and require careful treatment in end-of-life disposal; and the 'Oslo Effect' of non-tailpipe particulates from tyres and road-surface materials must also be factored into analysis of rail and road investments. There is much evidence that a rolling programme of electrification is needed as the only truly cost-effective way to reduce carbon emissions on rail.

- Reliability is important. Quality of life is much affected for people whose rail commute is as random as it has become in many areas for a variety of reasons, some self-inflicted by the rail industry!

(p45): We welcome the statements that '*The Commission will also bear in mind the importance of good design across all the packages*' and '*The Commission will also consider differential impacts across different groups in society.*'

(p45): We welcome the intended approaches to '*Understanding the needs and preferences of rail users*'. Growing the contribution of rail by attracting non-rail users is a major objective of Railfuture.

(p46): Sensitivity testing. We welcome the stated approach. There is evidence that, if reduction in car traffic is the desired outcome, improved public transport should be focused on prosperous areas; if improvements in social mobility and access to employment are the aim; it should be focused on more deprived areas. Nottingham Express Transit (trams) illustrates this, as does the Robin Hood heavy-rail line.

Question 4: Do you agree with the Commission's proposed approach to uncertainty?

Not sure! 😊

Essentially, yes. No-one knows what the long-term effect of the Covid pandemic will be, for the economy, for society, and for the railways. However, human beings are inherently social animals and, though the pandemic has accelerated the development and use of technologies for remote working and communication, the need for actual inter-personal interaction has not gone away. Working with stakeholders to understand the long-term impact of Covid-19 on rail is entirely right. (para 1.2, p15)

The Commission could also usefully take account of experience in other countries, where this is available, especially where lockdowns have eased, post-Covid. Has there been a return to rail usage, how great, and how rapid has it been?

Uncertainty increases in direct proportion to timescale. The further into the future something is, the greater the uncertainty associated with it. Businesses factor this into their costs, as greater uncertainty means greater business risk; with higher price being the insurance to cover that risk. Accelerating delivery obviously shortens timescales and thereby reduces uncertainty; in turn often reducing long-term whole-life costs. Rolling programmes of investment rather than stop-start, or feast-and-famine, need to be factored in, partly to help the supply chain effectively manage the demand.

We strongly agree with stated aim to consider options for accelerating delivery (p8). There are cases of Network Rail undertaking repairs and renewals swiftly during the relative quiet of the Covid-related reduction in trains running, with much accelerated planning and approval processes. Can lessons be learned from this for the future?

ENDS

Railfuture – East Midlands Branch
7th August 2020

Previous East Midlands Branch contribution to Railfuture's response to the May 2020 call for evidence in red text; subsequent additions in blue.

Introductory comment: HS2: Phase 2b or not 2b?

We start by questioning whether HS2 Phase 2b, eastern arm, is likely to go ahead, in view of the severe effect of the coronavirus crisis on the nation's finances. The contributions below for East Midlands Branch, particularly with reference to the Midland Main Line (MML), should be considered with either scenario in mind: with HS2 Phase 2b, or without it.

Assuming HS2 Phase 2b is built:

The MML and associated lines are important feeders and connecting routes that need full integration with HS2, as identified below:

- *Directly, in items 1 i), ii), viii), ix),*
- *Indirectly, in items 1 vii) and x).*

The HS2 section between Birmingham and Nottingham should be built in advance of plans for the rest of the eastern arm, to provide HS2 speeds for Nottingham to Birmingham and London journeys.

If HS2 Phase 2b is cancelled or deferred:

The MML takes on the significance that would have transferred to HS2 Phase 2b eastern arm, with an upgrade to a broadly 125mph linespeed throughout to Leeds and to connect with the ECML at Doncaster. The connecting routes remain important in this context. In that event, the priorities would be:

- *Upgrade and electrification of the Erewash Valley line to give a higher-speed direct connection between Nottingham and Sheffield.*
- *Upgrade and electrification of Sheffield to Leeds via Barnsley and Wakefield Kirkgate, to take the MML forward to Leeds as proposed in the Sheffield City Region Local Transport Plan.*
- *Implementation of BR's 140mph plan for the East Coast Main Line (ECML), provision for much of which is already in position.*
- *Leeds to Manchester upgrade and electrification to be extended to Liverpool and Hull.*
- *Upgrade and electrification of Birmingham to Derby.*

We note that HS2 Phases 1 and 2a are expressly out of scope of the NIC's call for evidence and we therefore assume that they will proceed as currently planned, with no reduction in scope or extension of timescale. We note, however, that they are an essential pre-condition of an extension of high-speed rail to Leeds via Manchester in place of HS2 Phase 2b eastern arm should the latter be cancelled. We also note and would support Greengauge 21's proposal for an upgraded route via Nottingham and Newark and the East Coast Main Line as an alternative high-speed route linking Birmingham and the North East. This would substantially reduce journey times between Nottingham and the North East. It would also connect HS2 directly with Nottingham from the south and enable East Midlands Parkway and the future redevelopment of the adjacent Ratcliffe power station site to be served by HS2.

We support these proposals as they would deliver greater economic benefits to the East Midlands than the current HS2 plans and would be delivered earlier. This is subject to recognition of the need for proper HS2 connectivity for Sheffield.

1. What potential investments should be in scope of the Commission's assessment of the rail needs of the Midlands and the north?

East Midlands investments

i) ***Midland Main Line (MML) full upgrade (capacity and speed) and electrification:***

Long overdue, partly implemented, widely supported, and shovel ready. It would have a good rate of return and the London – Corby (L2C) project has been delivered by a very reputable team on time, to specification and within budget. This expertise should not be disbanded and lost.

This would include capacity improvements through Leicester and at Trent Junctions; integration to allow HS2 Phase 2b trains to gain direct access to Nottingham and Derby city centre stations, and via junctions with HS2 in the Chesterfield and Sheffield areas; and provision for enhanced journey times between Nottingham and Sheffield. Electrification to continue beyond Sheffield to Leeds via Barnsley to meet aspirations for connectivity there, and to connect with East Coast Main Line wiring at Moorthorpe and Doncaster.

Extension of electrification north from Corby via Melton to Syston to provide flexibility and direct northward connectivity for Corby and Melton. See also xiv) below.

ii) ***Lincoln – Nottingham – Birmingham capacity and speed upgrade:***

Using upgraded existing Sheet Stores Junction – Stenson Junction line via Castle Donington, to accelerate some services (2 of the proposed 4tph total) prior to HS2 Phase 2b.

A reopened Castle Donington station would serve the East Midlands Gateway logistics park and provide access to East Midlands Airport by connecting with the frequent Derby and Nottingham Skylink bus services. East Midlands Airport reports significant usage (pre-coronavirus) by passengers based in the West Midlands, who could benefit from improved access via a Castle Donington station.

Grade separation of the crossing of the ECML at Newark, for the benefit of both routes.

iii) ***Leicester – Coventry capacity and speed upgrade:***

As already identified and promoted by Midlands Connect. Inter-regional connectivity plus commercial and housing growth corridor.

We consider it important that the connection from Leicester to Coventry under the WCML at Nuneaton is built to cover both options:

- *A curve that permits Leicester to Coventry trains to avoid Nuneaton and achieve journey time savings.*
- *A curve into Nuneaton station platforms 1 and 2 to enable Leicester to Coventry trains to call at Nuneaton for better connectivity.*

We think it important that future train operators and the commissioning transport bodies can choose their route.

iv) ***Leicester – Birmingham speed and other improvements:***

As already promoted by Midlands Connect.

v) ***Leicester – Burton upon Trent ('Ivanhoe Line') reopening to passengers:***

Connectivity between East and West Midlands using an existing route via a string of isolated towns undergoing post-industrial regeneration, plus emerging tourism (National Forest, etc).

In conjunction with ii) above, this route offers the potential for a circular route Burton – Loughborough – Leicester – Burton, with intermediate stations, greatly improving connectivity for this sub-region especially between economic developments and people seeking employment.

In addition to a heavy rail service throughout, this should include provision for new generation ultra-lightweight trams on the Leicester end of the line, with these going into and around Leicester City Centre by means of on-street running.

vi) ***Matlock – Buxton and Chinley reopening:***

The Manchester & East Midlands Rail Action Partnership (MEMRAP) 'Peaks & Dales Railway' proposals under the DfT Restoring Your Railway process: a multi-purpose (freight, passenger, heritage) scheme greatly enhancing connectivity within Derbyshire and access to the Peak District. It would also give inter-regional connectivity between the East Midlands and the North West in conjunction with relief of the Hope Valley Line, enabling enhancements there as well, as part of a coordinated package of improvements including routing some fast EM – NW services via the Dore South curve.

It would include a capacity upgrade for the Derwent Valley Line, Derby – Matlock.

vii) ***Market Harborough - Northampton reopening:***

As proposed in the draft West Northamptonshire Strategic Plan and associated with England's Economic Heartland LEP's 'North-South Rail', to enhance connectivity between the West Coast and Midland Main Lines and, therefore, between Sheffield/Nottingham/Derby/Leicester and Northampton/Milton Keynes/beyond.

This should be considered for infill electrification once the MML is sufficiently advanced.

This would link with…

viii) ***…Midlands Connect's proposal for a Bedford – stations to Leicester – Toton Hub – via HS2 Phase 2b to Leeds service:***

HS2 classic-compatible service on major corridor linking several core cities.

ix) ***'Maid Marian Line': Mansfield – Toton HS2 Hub – and beyond (either Derby or Leicester) via existing partly freight-only routes:***

Linking Mansfield conurbation to HS2 and supporting regeneration schemes and employment opportunities in the Erewash Valley area.

x) ***Derby – Stoke – Crewe capacity and speed enhancements:***

To improve East Midlands – North West connectivity including enhanced services for the Stoke-on-Trent conurbation, plus improved access to Manchester Airport (with some through services from Nottingham, Derby and Stoke). Would include remodelling to enhance speeds at Kidsgrove, re-doubling between Alsager and Crewe, and grade separation on the approaches to Crewe for extension of services from Nottingham to Liverpool and Chester/North Wales. Via short extensions, this route potentially has an HS2 interchange at each end.

xi) ***Melton Mowbray – Nottingham reopening:***

Via the present Old Dalby test track, some new construction and the disused Cotgrave colliery branch. Housing growth and a congested road corridor constrained by limited crossings of the River Trent. Possible diversionary route providing resilience for MML and Nottingham – Peterborough plus freight.

xii) ***Leicester – Peterborough capacity and speed upgrades:***

For freight and to allow 2tph passenger services.

xiii) ***Nottingham - Grantham - Skegness enhancements:***

Adding to the existing through Skegness service with the provision of an additional commuter (stopping service) between Nottingham and Grantham to provide better connections for the planned significantly expanded populations of Radcliffe on Trent, Bingham, Elton, Bottesford and Grantham into the Nottingham conurbation, plus a new 'Saxondale Parkway' station near the A46/A52 road junction west of Bingham.

Some modification to the approach to Grantham station may be required; however, this would remove the need to upgrade the A52 trunk road and the provision of a fourth road crossing of the River Trent in Nottingham. Preferably, this commuter service would continue as part of the Robin Hood Line to provide easier 'cross-city' travel. It would also allow better connections from South-East Nottinghamshire and North-East Leicestershire to the ECML at Grantham for fast inter-regional travel.

xiv) ***The Luffenham chord (effectively Corby - Stamford):***

There is emerging interest in the 'Luffenham Chord', a new link between the Corby – Melton and Oakham – Peterborough lines, partly utilising a reopened section of the disused Market Harborough to Stamford line roughly between Seaton Junction and South Luffenham through Morcott. This would give a south-to-east curve, enabling trains to run directly between Kettering and Peterborough via Corby and Stamford, thereby forming a part of the England's Economic Heartland 'Northern Arc' aspiration. In conjunction with the Werrington dive-under now being built, it would also provide a freight route between the MML and the GNGE Joint Line towards Doncaster via Lincoln.

Investments outside the East Midlands (this list is not exhaustive!) on the assumption that HS2 Phase 1 and 2a goes ahead but Phase 2b eastern arm is cancelled:

xv) ***Manchester to Leeds upgrade and electrification:***

To be fast-tracked as the first stage of Northern Powerhouse Rail.

xvi) ***HS2 Phase 2a extension to link with Manchester, Bradford and Leeds:***

To provide the high-speed link with Leeds in the event that HS2 Phase 2b eastern arm does not proceed.

Investments outside the East Midlands (this list is not exhaustive!) whether or not HS2 Phase 2b eastern arm goes ahead.

xvii) ***Manchester Hub and Castlefield Corridor capacity upgrade:***

Resolution of capacity on this crucial but sub-optimum rail artery across Manchester, to release capacity for some of the options above (e.g. Peaks & Dales Railway at vi) above). (The Castlefield Corridor has been likened to the Thameslink core in London, which has enjoyed a major upgrade and, prior to the coronavirus crisis, was bearing fruit for cross-regional transport across the capital.)

Associated with this is doubling the Hazel Grove chord in south Manchester plus junction upgrades at Stockport.

xviii) ***Capacity upgrade in Leeds:***

To release capacity for additional services there, including from the MML.

2. Which set of rail investments do you believe would, together:

a. best unlock capacity within the Midlands and the north?

In priority order (numbers refer to Q1 index), for schemes within the East Midlands:

i) ***Midland Main Line (MML) full upgrade and electrification***

ii) ***Lincoln – Nottingham – Birmingham upgrade***

Could use existing Sheet Stores Junction – Stenson Junction line to accelerate some services (2 of the proposed 4tph total) prior to HS2 Phase 2b.

iii) and iv) ***Leicester – Coventry*** *and* ***Leicester – Birmingham upgrades****, taken together as a package.*

x) ***Derby – Stoke – Crewe capacity and speed enhancements***

To improve EM – NW connectivity including enhanced services for the Stoke-on-Trent conurbation and extension of services to and from Nottingham at the southern end and Liverpool and North Wales at the north-western end.

vi) ***Matlock – Buxton and Chinley reopening***

Partly through relief of the Hope Valley Line for associated improvements on that route.

xii) ***Leicester – Peterborough upgrade***

Allowing more frequent passenger and freight trains.

b. best improve connectivity within the Midlands and the north?

i) ***Midland Main Line (MML) full upgrade and electrification***

Enhanced regional and inter-regional services both pre- and post-HS2, including East Midlands cities to Leeds and the North-East.

ii) ***Lincoln – Nottingham – Birmingham upgrade***

Enhanced and accelerated links between the East and West Midlands sub-regional capitals, complementing A46 road corridor, being developed by Midlands Connect.

iii) and iv) ***Leicester – Coventry*** *and* ***Leicester – Birmingham upgrades****, taken together as a package.*

Enhanced and accelerated links between the East and West Midlands core cities.

v) ***Leicester – Burton upon Trent ('Ivanhoe Line') reopening***

Connectivity between East and West Midlands using an existing route. Connectivity for a string of towns currently isolated from rail but undergoing post-industrial regeneration, plus emerging tourism (National Forest, etc).

In conjunction with use of the Stenson Junction – Sheet Stores Junction via Castle Donington line included in ii) above, this route offers the potential for a circular route Burton – Loughborough – Leicester – Burton, with intermediate stations, greatly improving connectivity for this sub-region especially between economic developments and people seeking employment, including in Birmingham.

vi) ***Matlock – Buxton and Chinley reopening***

Partly through relief of the Hope Valley Line for associated improvements on that route between Sheffield and Manchester. Access for visitors to and communities within the Peak District. Capacity upgrade between Derby and Matlock.

vii) ***Market Harborough - Northampton reopening***

To link the WCML and MML in the South and East Midlands, connecting the Milton Keynes + Northampton sub-region with the Leicester, Nottingham and Derby 'Dynamic Triangle, plus Sheffield and Leeds. The rail option on this route is currently poor, though it parallels the M1 motorway.

Spine route for freight.

ix) ***'Maid Marian Line': Mansfield – Toton HS2 Hub – and beyond (Derby or Leicester) via existing partly freight-only routes***

Connectivity to HS2 and Erewash Valley regeneration scheme opportunities for Mansfield and other Nottinghamshire ex-coalfield communities.

x) ***Derby – Stoke – Crewe enhancements***

To improve East Midlands – North West connectivity including enhanced services for the Stoke-on-Trent conurbation, and easier access to Manchester Airport, Liverpool and North Wales. Via short extensions, this route potentially has an HS2 interchange at each end.

xii) ***Leicester – Peterborough upgrade***

Inter-regional links between West and East Midlands and East Anglia.

3. Within the set of investments you identified, which individual investment(s) should be the highest priority?

These are the highest-priority investments, listed in priority order (based partly on use of existing infrastructure allowing more rapid delivery) and numbered by reference to the list at Q1.

i) ***Midland Main Line (MML) full upgrade and electrification***

This is substantially in progress, especially south from Market Harborough. Integration with HS2 via junctions around Toton Hub and in Chesterfield and Sheffield areas. Electrification to continue beyond Sheffield to Leeds and to connect with East Coast Main Line wiring.

ii) ***Lincoln – Nottingham – Birmingham upgrade***

Increased speeds between Midlands sub-regional capitals, using upgraded existing routes at least until HS2 Phase 2b is available as the core.

iii) and iv) ***Leicester – Coventry*** *and*
Leicester – Birmingham upgrades*, taken together as a package.*

Midlands Connect priority. Increasingly important intermodal freight corridor.

x) ***Derby – Stoke – Crewe enhancements***

Upgrade of existing inter-regional route connecting major interchanges (including potentially HS2 at each end) and conurbations.

v) ***Leicester – Burton upon Trent ('Ivanhoe Line') reopening***

To reinstate rail access to a poorly served area with significant population (c.90,000), using a rail corridor that currently exists for freight. This would also provide compensation for an area that will be much affected by HS2 Phase 2b construction, enabling the benefits to be spread more widely.

vi) ***Matlock – Buxton and Chinley reopening***

Partly through relief of the Hope Valley Line for associated improvements on that route. Valuable benefits of connectivity for the EM, NW and Yorkshire regions, plus access to and for the Peak District National Park (the second most visited national park in the world) to relieve congested roads.

4. What supporting policies need to be in place to deliver the benefits of the investments you identified?

[I AM NOT SURE WHAT IS REALLY WANTED HERE…]

- *Completion of HS2 in full, as planned, with no further reduction in scope or extension of timescale.*
- *Full integration of HS2 into the existing network with junctions and classic-compatible high-speed services.*
- *A rolling programme of complementary upgrades to the classic network to allow optimum use for regional, local and freight services, including capacity released by HS2.*
- *A rolling programme of electrification, building on the lessons learnt from Great Western electrification and the successes of MML (L2C) and Scottish schemes, and allowing continuity for the supply chain plus reduction in unit costs.*
- *Associated with electrification:*
  - *A policy for fair monetarisation of carbon savings achieved through electrification, coupled with a recognition that novel self-powered traction systems such as hydrogen fuel cells are only ever likely to be marginal solutions.*
  - *Air Quality measures in urban areas - reduction of nitrogen oxides and carbon monoxide as a result of electrification.*
  - *Maintaining the associated policy of shifting electricity generation to renewable and non-carbon sources.*
- *Land-use planning to take full account of the benefits of co-location with rail infrastructure for major residential, leisure, commercial and industrial development.*
- *Integration of rail with all other modes, including public transport (other rail, metro, tram, bus, taxi); private transport (car) and active transport (cycling, walking). This includes full accessibility for all.*
- *Planning of major road, port, and airport investment to be complementary to, not competitive with, rail infrastructure, allowing each mode to concentrate on what it is best at.*
- *Significance being given to those locations where the economy is most hampered by lack of connectivity, rather than merely concentrating on the present busiest routes.*
- *Ensuring that the Government's recognition of the need for 'levelling up' between regions and localities is put into tangible effect.*
- *Recognition that airports are major traffic generators, in terms of air passengers and freight, and in terms of travel by those employed at the airports. In total, these can be comparable to significant town centres; they need to be provided for commensurately in transport access, by all relevant modes.*
- *More equitable treatment for rail travellers – an end to above-inflation annual rises in rail fares while the motor vehicle fuel duty escalator has been abandoned.*
- *UK-wide road user charging, with variable charges according to time of day, congestion, availability of convenient alternative public transport, and the emissions characteristics of the vehicle, with possible early introduction for petrol and diesel vehicles and phased introduction for hybrid and electric-only vehicles.*

5. What impact would the investments you identified have on greenhouse gas emissions? In particular, how would they affect the UK's ability to meet its domestic and international targets, including the Paris Agreement and net-zero?

[FIGURES NOT AVAILABLE]

Rail, especially electrified rail, contributes much less by way of greenhouse gas emissions than equivalent road transport, both for passengers and freight. It is noted that road transport is increasingly turning to battery electric propulsion but almost inherently remains proportionately less energy efficient than rail. In addition, battery production and disposal have environmental impacts. On both modes, electric operation only reduces exhaust gas emissions at the point of use, and places greater demand on the electricity generation and transmission system. Similarly, it is only as 'green' as the source of the electricity. Rail's inherently better energy efficiency through its lower rolling resistance is important in achieving zero emissions targets. Modal shift to rail by means of enhanced services, e.g. between the East Midlands and the North West, would assist in decarbonisation irrespective of motive power.

6. In addition to greenhouse gas emissions, what are the potential environmental effects (positive and negative) of the investments you identified?

- *Reduced road traffic congestion, noise and nuisance and associated community segregation.*
- *Increased public transport use means reduced need for car parking, which can release urban land for more productive use.*
- *Reduced 'Oslo Effect' particulates from tyres and brakes, reducing pollution of watercourses as well as the air.*
- *Reduced demand for cars would reduce the use of energy and material resources in making and recycling vehicles, which have a shorter life than rail vehicles.*
- *It is acknowledged that improved rail facilities encourage housing and other developments. Any associated pressure to build on greenfield land must therefore be subject to effective land use and planning policies.*

7. Aside from those delivered by improved connectivity and greater capacity, what broader impacts on people's quality of life could the investments you identified have?

- *The economic regeneration benefits associated with rail investments improve the quality of life through employment opportunities created by inward investment, and improvement of the built environment.*
- *Greater social mobility, especially for those in more deprived areas and those without access to private transport.*
- *Greater choice in transport. Investment in trunk roads generally only provides user benefits for road users; investment in public transport benefits all people travelling, whether directly (passengers) or indirectly (e.g. road users, through reduced traffic and congestion). This is especially so in the case of modal shift of freight to rail.*
- *Reduced journey times, especially on routes where a rail option is currently not available or is so indirect as to be unviable.*
- *Reduced stress and physical danger (death and injury through accidents) associated with road traffic and congestion. This includes noise. (Though railways generate noise, they do so in a more concentrated and less continuous way than road.) Reduction in local congestion caused by through traffic in towns like Bakewell, Buxton and Matlock, where bypasses are not feasible or desirable within the Peak District National Park context, but where the rail formation is already in place but disused or under-used.*
- *Travel by rail is not necessarily unproductive; it releases time for working and use of social media in a way not possible when driving.*
- *Electrification helps to reduce noise nuisance on both road and rail.*

8. How would the costs and benefits of the investments you identified be distributed economically, socially and geographically?
[I AM NOT SURE WHAT IS REALLY WANTED HERE…]

- ***Economically:*** *The costs of transport will, quite rightly, fall primarily on the users of transport services, by whatever mode. However, not all costs of transport are directly borne by users, and not all benefits are derived solely by users. These costs and benefits should therefore be properly factored in, both for capital investments and revenue operation. The non-user benefits of rail for both passenger and freight movement (e.g. environmental) tend towards justification of public funding contributions. Similarly, not all the costs of road transport (e.g. noise, policing, accidents) are 'internalised', such that increased user contributions, e.g. towards the full costs of infrastructure provision and maintenance, are justified. This balance should be recognised and provided for in a way that engenders public recognition and support.*

  In addition, there needs to be a policy for fair monetarisation of carbon savings achieved through electrification.
- ***Socially:*** *As above, plus ensuring that individuals and localities are not unduly hampered in their pursuit of opportunities by prohibitively expensive transport costs or lack of viable travel opportunities.*
- ***Geographically:*** *The East Midlands region has historically enjoyed relatively low levels per capita of investment in transport. The region also suffered significant reductions of connectivity by reason of past rail closures. We welcome the Government's commitment to 'levelling up'.*

9. Which set of investments would best improve rail connectivity with Scotland?

i) ***Midland Main Line (MML) full upgrade and electrification***

Integration with HS2 via junctions around Toton Hub, Chesterfield and Sheffield, coupled with electrification beyond Sheffield, would promote connection with the East Coast Main Line (ECML) to the North East and Scotland.

vii) ***Market Harborough - Northampton reopening***

To link the MML and WCML in the South and East Midlands, as part of a north – south spine route for freight. This should be considered for infill electrification.

viii) ***Bedford – stations to Leicester – Toton Hub – via HS2 Phase 2b to Leeds service***

As above, and as put forward by Midlands Connect. Much enhanced connectivity using existing lines via integration with HS2 at Toton, continuing via the East Coast Main Line (ECML) to Scotland either directly or via connecting services.

x) ***Derby – Stoke – Crewe capacity and speed enhancements***

Upgrade of existing inter-regional route to an inter-city standard, connecting major interchanges (including potentially HS2 at each end) and conurbations. This would greatly enhance connectivity between the East Midlands and Western Scotland via both the WCML and an extended HS2 Phase 2a.

In addition, all the proposed line reopenings would improve connectivity to Scotland via connectional opportunities currently unavailable to areas with no rail access.

10. What would be the impact of the investments you identified on connectivity between the Midlands and the north, and other parts of the UK?

i) ***Midland Main Line (MML) full upgrade and electrification***

Integration with HS2 via junctions around Toton Hub, Chesterfield and Sheffield, coupled with electrification beyond Sheffield, would promote connection with the East Coast Main Line (ECML) to the North East as well as Eastern Scotland.

Good interchange with East-West Rail at Bedford to give connectivity from MML stations to East Anglia and to Oxford and the West Country.

ii) ***Lincoln – Nottingham – Birmingham***

and *and*

iv) ***Leicester – Birmingham enhancements***

Via interchange at Birmingham, these both enhance connectivity for the East Midlands to the South West and South Wales.

iii) ***Leicester – Coventry enhancements***

Enabling better connectivity with the Thames Valley, as sought, for example, in the Leicester & Leicestershire Rail Strategy (Leics City and County Councils + LEP).

vi) ***Matlock – Buxton and Chinley reopening***

This would improve freight connectivity especially to the South East by means of the potential to increase the number of freight trains running from Peak District quarries to meet the anticipated growth in demand for limestone products for infrastructure and other construction projects.

xii) ***Leicester – Peterborough upgrade***

Inter-regional links between (West and) East Midlands and East Anglia, including the Cambridge area.

In addition, all the proposed line reopenings would improve connectivity to all parts of the UK via connectional opportunities currently unavailable to areas with no rail access.

11. What would be the impact of the investments you identified on international connectivity across the Midlands and the north?

i) ***Midland Main Line (MML) full upgrade and electrification***

This route already gives good immediate interchange with Eurostar services via HS1 at St Pancras.

Interchange with Luton Airport.

Potential for interchange with East Midlands Airport via enhanced links from East Midlands Parkway station (or from Long Eaton, via the frequent Skylink bus). Potential for rail integration with air freight via East Midlands Airport, for premium parcels and light goods traffic.

ii) ***Lincoln – Nottingham – Birmingham***

iii) ***Leicester - Coventry***

and *and*

iv) ***Leicester – Birmingham enhancements***

Via interchange at Birmingham or Coventry, these all improve connectivity for the East Midlands with Birmingham Airport.

East Midland Airport (EMA) reports significant usage by passengers based in the West Midlands, who could benefit from improved access via East Midlands Parkway station (MML). Likewise, a reopened Castle Donington station would provide through facilities from the West Midlands and Lincoln to EMA by linking with high-frequency Skylink bus services (both the Derby and Nottingham routes), which should be the focus of coordination with EMA, if not integration, complete with through ticketing.

vi) ***Matlock – Buxton and Chinley reopening:***

The 'Peaks & Dales Railway' proposal would greatly enhance access to the Peak District National Park, one of the most-visited national parks in the world, for tourists from abroad. Many of these may arrive via Manchester Airport and the railway would both enhance accessibility and reduce traffic, including hire cars.

vii) ***Market Harborough - Northampton reopening***

Part of potential freight spine for maritime freight traffic from Southampton to the East Midlands, Yorkshire and the North East.

Coupled with capacity upgrades on the MML, potential for relief of the WCML by diverting international freight including that to or from Europe via the Channel Tunnel.

x) ***Derby – Stoke – Crewe enhancements***

Easier access to Manchester Airport for the East Midlands.

Freight route relieving the WCML between Nuneaton and Crewe, including in conjunction with xii) Leicester – Peterborough, below.

xii) ***Leicester – Peterborough upgrade***

Allowing greater freight capacity for Felixstowe container traffic, bypassing London.

We note the long-term proposals for an additional island platform at Leicester on the east side of the station. Routing freight trains through platforms is not ideal, so we would advocate suitable provision to avoid this, especially if speeds through Leicester can be increased (page 4 above), along with grade separation at Wigston to remove conflicting moves with passenger trains.

In addition, all the proposed line reopenings would improve international connectivity via connectional opportunities currently unavailable to areas with no rail access.

ENDS