

Strategic Transport Forum

Agenda

14th May 2021

11am – 1pm

Virtual Meeting: Dial-In Details in appointment

(Members of the Public are asked to register attendance via

englandseconomicheartland@buckinghamshire.gov.uk by midday, Thursday 13th May)

1	Introductions and Minutes of Previous Meeting <i>(including update on actions)</i>	Chair (10 mins)
2	Public Questions <i>Attending members of the public are asked to register the wish to speak in advance. Comments will be invited on any of the listed agenda items.</i> <i>Speakers will be invited to ask a question, a supplementary question and to make a short statement.</i>	Chair (10 mins)
3	Passenger Rail Study Phase 2 <i>To consider and endorse the findings of the Passenger Rail Study Phase Two and agree the approach for developing the Rail Investment Programme</i>	Antony Swift (15 minutes)
4	East West Rail Consultation <i>To provide a steer on EEH's proposed approach to responding to the East West Rail consultation and to agree that the Forum look to the EWR Consortium to develop the detailed response</i>	Antony Swift (20 minutes)
5	Bus Back Better <i>To consider and agree EEH's approach to supporting local partners' responses to Bus Back Better, including setting regional priorities for intra-regional journeys</i>	Naomi Green (20 minutes)

<p>6</p>	<p>Strategic Roads Update <i>To receive an update on EEH's approach to investing and delivering improvements to the region's strategically important road network and to agree the Forum's support to make representations in support of the Development Consent Order for the A428 Black Cat to Caxton Gibbet</i></p>	<p>Naomi Green (10 mins)</p>
<p>7</p>	<p>Oxford to Cambridge Arc Spatial Framework <i>To note the update on the Spatial Framework and to consider the extent to which wider issues need to be considered by the regional Transport Strategy and the Spatial Framework</i></p>	<p>Martin Tugwell (15 mins)</p>
<p>8</p>	<p>2021/2022 Work Programme <i>To endorse the 2021/2022 Work Programme</i></p>	<p>Naomi Green (10 mins)</p>
<p>9</p>	<p>Business Unit Update <i>To note progress on some key programmes of activity:</i></p> <ul style="list-style-type: none"> - <i>Connectivity Studies Programme</i> - <i>Transport Decarbonisation Plan</i> - <i>Work from Home – Network Capacity Release Project</i> - <i>Government's EV Infrastructure Strategy</i> - <i>6th Carbon Budget and new Nationally Determined Contribution</i> - <i>EEH Annual Conference</i> - <i>Consultation response: Oxfordshire Local Transport and Connectivity Plan vision</i> 	<p>Naomi Green (10 mins)</p>
<p>10</p>	<p>Future Meeting Dates</p> <ul style="list-style-type: none"> • <i>Friday 16th July 2021 (Note: additional meeting)</i> • <i>Friday 10th September 2021</i> • <i>Friday 26th November 2021</i> <p><i>All meetings to be held virtually or at Bedford Borough Council, Cauldwell Street, Bedford, MK42 9AP</i></p>	



STRATEGIC TRANSPORT FORUM Minutes

Friday 5th February 2021

11:00 – 13:00

Microsoft Teams Meeting

Present:	<p>Mayor Dave Hodgson Mayor James Palmer Cllr Jennifer Marklew Cllr Gary Sumner Cllr Paul Castleman Cllr Ian Dalgarno Cllr Aidan Van de Weyer Cllr Steve Broadbent Cllr Nick Naylor Cllr Yvonne Constance Lynsey Hillman-Gamble Simon Bowers Liz Watts Mark Kemp Ashton Cull Tim Bellamy Jon Shortland Ian Thompson Joan Hancox Ian Achurch Sue Frost James Povey John Disley Samantha Howell Keith Dove Paul Moorby Hilary Chipping Phil Southall Carly Freeston Carew Satchwell Gavin Dowland Matthew Taylor</p> <p>Martin Tugwell Naomi Green James Golding-Graham Adam King Abi Nichols Antony Swift</p>	<p>Bedford Borough Council Cambridgeshire and Peterborough Combined Authority Milton Keynes Council Swindon Borough Council Luton Borough Council Central Bedfordshire Council South Cambridgeshire District Council BTVLEP Buckinghamshire Council Oxfordshire County Council Central Bedfordshire Council Daventry District Council South Cambridgeshire District Council Hertfordshire County Council Cambridgeshire and Peterborough Combined Authority Cambridgeshire and Peterborough Combined Authority Bedford Borough Council Buckinghamshire Council Buckinghamshire Council Northamptonshire County Council Luton Borough Council Milton Keynes Council Oxfordshire County Council Swindon Borough Council Luton Borough Council SWLEP SEMLEP OXLEP Department for Transport Network Rail Network Rail Highways England</p> <p>England's Economic Heartland England's Economic Heartland England's Economic Heartland England's Economic Heartland England's Economic Heartland England's Economic Heartland</p>
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In attendance: Peter Norris



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		ACTION
1	WELCOME AND INTRODUCTIONS The Chair welcomed everyone to the meeting. The virtual meeting protocol was discussed and observed. Attendees agreed that a recording of the meeting could be saved for a period of seven days for the purpose of minute taking.	NONE ARISING
2	MINUTES FROM THE LAST MEETING Minutes from the previous meeting were agreed as a true record. Naomi Green took the meeting through the action log, with all actions either completed, ongoing or addressed as part of substantive agenda items.	NONE ARISING
3	PUBLIC QUESTIONS Jim Chisholm asked the Forum what steps the Forum can take to assist areas currently without Civil Enforcement Powers to enforce minor moving vehicle offences to obtain them. Naomi Green advised that she is seeking advice from DfT officials and will advise accordingly, following the outcomes of those discussions. Peter Norris discussed East West Rail's Peleton Spotlight series of presentations, during which he argued there was a dominant theme from contributing organisations that the project should provide strategic freight capability, including electrification. He asked whether EEH support building in freight capability and electrification from the project's outset. Martin Tugwell responded by advising Peter Norris that EEH's position is clear that a programme of electrification is needed and there is significant value in ensuring new railway infrastructure is electrified, as captured in Network Rail's Traction Decarbonisation Network Strategy. Martin Tugwell advised that increasing freight and logistics capacity is a regional priority and EEH continue to work with EWR Co. and neighbouring STBs to ensure freight opportunities are considered as part of the development of this project.	NAOMI GREEN
4	TRANSPORT STRATEGY Naomi Green led a discussion on three core elements of the Transport Strategy. These were the recommended revisions to the Transport Strategy, Integrated Sustainability Appraisal and proposed Operating Framework. She began by recapping the process taken to develop the Transport Strategy presented to the Forum for approval. The Transport Strategy has now been through two rounds of engagement which has demonstrated a high amount of support in terms of the approach taken and policies it contains. The consultation analysis identified six key themes: decarbonisation and the environment, alignment with wider geographies, reflecting levers for change, consideration of the balance of modes, people and safety and rural connectivity. The Strategy has taken account of these themes through drafting changes and amendments set out in Annex 2. Naomi summarised the core changes to the document that have been developed with transport officers. These included changes to the introductory chapter, strengthened by the inclusion of a 'five-point plan of action', an ambition to reach net-zero emissions by 2040, changes to the list of strategically important places, policy amendments and a revised investment pipeline. Naomi Green proposed that the Transport Strategy should be launched in mid-February 2021 supported by an executive summary. Naomi Green advised the Forum that feedback on the Integrated Sustainability Appraisal (ISA) during the consultation period presented several key themes. These themes, set out in paragraph 4.3 of the paper, have been considered when producing the Transport Strategy and ISA. Specific example of these key	



	<p>themes included water management, supporting an aging population and preservation of the visual landscape.</p> <p>Mayor Dave Hodgson began the discussion by discussing the reference to Arc’s geography contained in the Transport Strategy. He recommended that Buckinghamshire, whilst not part of Arc governance is part of Arc geography. Cllr Steve Broadbent and the Forum agreed for a change to be made to reflect this. Mayor James Palmer emphasised the need for East West Rail to connect through Cambridge to Norwich/Ipswich and beyond and the importance of Cambridgeshire Autonomous Metro. Cllr Steve Broadbent reiterated the need for the Strategy to reflect the strategic benefits of the Aylesbury spur, which would connect Aylesbury directly to Milton Keynes by rail. Further, he stressed the need for a mechanism by which the Transport Strategy, and places of strategic importance, would be kept under review.</p> <p>As part of the ensuing discussion Cllr Yvonne Constance discussed policy 4 (travel hierarchy). In doing so she argued that it will be useful for the policy to highlight the need for proposals to be developed in the context of design standards for active travel. She recommended the policy would benefit from additional wording that reflected this requirement.</p> <p>Carly Freeston thanked colleagues for the work that has gone into developing the Transport Strategy, advising the Forum that it is the DfT’s hope the Transport Strategy can feed into the development of the Arc Spatial Framework. Her view is that where the Transport Strategy discusses other areas of public policy that are required to deliver its ambitions, this narrative should be agreed by relevant Whitehall departments.</p> <p>The Forum discussed the Heartland’s rural geography and in doing so Cllr Nick Naylor felt that the Strategy could have gone further in developing appropriate policies that seek to address high-car dependency issues in remote places.</p> <p>Naomi Green led a discussion on the proposed Operating Framework that sets out the relationship between the DfT and EEH. This approach will ensure EEH is able to support its partners in the implementation of the Transport Strategy. The Operating Framework will be considered by the DfT alongside the publication of the Transport Strategy. Mayor James Palmer expressed reservations about supporting the Operating Framework as part of the Transport Strategy as he was concerned it may inadvertently compromise the policies promoted in their Local Transport Plan. Martin Tugwell responded by reminding the Forum that the Transport Strategy is not seeking to affect devolved accountabilities across the region, rather, the Operating Framework is seeking to capture how EEH works already with the DfT in a non-statutory arrangement. James Palmer agreed to discuss the matter with his colleagues at the Combined Authority.</p> <p>The Forum:</p> <ul style="list-style-type: none"> a) Agreed to publish the Transport Strategy as presented in Annex 1, subject to the amendments agreed at the meeting. b) Agreed to publish the Integrated Sustainability Post Adoption Statement alongside the Transport Strategy, subject to the amendments agreed at the meeting. c) Agreed to incorporate the proposed Operating Framework as an annex to the Transport Strategy. d) Agreed to submit the Transport Strategy, including the Operating Framework, to the Secretary of State for Transport. 	<p>NAOMI GREEN</p>
<p>5</p>	<p>SPENDING REVIEW 2021</p> <p>Martin Tugwell introduced the item by reminding the Forum that last year EEH undertook some initial work to identify priorities for a Spending Review. Having</p>	



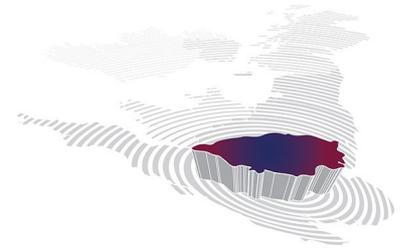
	<p>an adopted Transport Strategy allows the Forum to work with even greater clarity of investment priorities. The supporting paper set out a recommended approach to the Spending Review submission.</p> <p>Martin Tugwell summarised the three-pronged approach, confirming that it focuses on securing the funding required to support partners accelerate the delivery of known priorities, securing the funding to develop schemes identified in the Investment Pipeline to make them 'oven ready' and securing the funding to increase regional capacity and capability to deliver investment priorities. The paper's annex listed known investment priorities that were the purpose of consideration and comment by the Forum.</p> <p>Cllr Yvonne Constance queried paragraph 1.5 of the paper that implied transport investment may be redirected to regions outside London and the South East. She sought to understand how likely it would be transport investment would be targeted at projects in the north. Martin Tugwell responded by stating that as public sector finances would be under pressure for the foreseeable future, there is an imperative that the schemes EEH put forward are evidence-led and demonstrate tangible, monetised and non-monetised outcomes for our region and for the rest of the UK. Mark Kemp commented that Hertfordshire's proposed Mass Rapid Transit system should be included in any future submission, Martin Tugwell confirmed it would.</p> <p>Phil Southall argued that funding streams should be coordinated to ensure the correct outcomes are delivered. He cited the A34 Highways England project as having money available for traffic demand management but due to the scheme appraisal models being used, it will not deliver the necessary environmental, health and public transport/active travel outcomes.</p> <p>Cllr Steve Broadbent welcomed the approach and the need to accelerate decision making, he sought clarity on timescales for the ambition of a regional centre of excellence. Martin Tugwell advised the Forum that there is an initial proposal for the centre of excellence and agreed to bring back a more detailed proposition to the Forum.</p> <p>The Forum:</p> <ul style="list-style-type: none"> a) Agreed a three-pronged approach to the Spending Review submission. b) Provided a steer on the emerging proposition for the Spending Review, identifying areas of particular priority. 	<p>MARTIN TUGWELL</p>
<p>6</p>	<p>RURAL TRANSPORT</p> <p>Naomi Green reflected on previous Forum discussions where the strength of feeling regarding rural transport has shaped EEH's proposed response to DfT's: Rural Strategy call for evidence. Naomi Green advised that in December 2020 DfT published a call for evidence to inform their Future of Transport Rural Strategy. The engagement period closes on the 15th February 2021 and thus allows for a discussion on the proposed submission with Forum members. Three key themes feature throughout the proposed response, these include the fact decisions made in the provision of other non-transport services, such as health, education or planning impact on connectivity, the importance of investment in digital connectivity and the way mobility hubs and rural park and rides can create demand and viability for public transport services.</p> <p>Phil Southall suggested that Government's Rural Mobility Fund should feature within the response. Following the funding announcement made on January 12th 2021, three schemes in the Heartland were successfully chosen to develop business cases. It was recommended that these initiatives are referenced in the response as case study examples for future learning opportunities. Cllr Nick Naylor supported the three key themes set out in the response and was pleased to see the emphasis on multimodality that came through in the letter.</p>	



	<p>Mayor Dave Hodgson concluded by noting that the response should identify the cost barriers of new electric mobility solutions and the knowledge base required to enable people to use technology with confidence. Naomi Green recognised and responded to the comments of the Forum and agreed to incorporate them.</p> <p>The Forum: agreed, subject to the amendments, EEH’s response to the Government’s Future of Transport: Rural Strategy call for evidence.</p>	NAOMI GREEN
7	<p>ZERO EMISSION VEHICLES AND ROAD PRICING</p> <p>James Golding-Graham led a discussion on the UK Parliament’s Transport Select Committee enquiry into zero emission vehicles and road pricing. The submission is due on the 15th February 2021 and will consider the implications of accelerating the shift to zero emission vehicles and the potential for introducing road pricing or pay-as-you-drive schemes. To support the transition to electric vehicles, the Government has committed up to £1 billion to support the electrification of UK vehicles and their supply chains.</p> <p>James Golding-Graham advised the Forum that EEH’s modelling has shown that without a significant reduction in trips EEH won’t achieve legally binding 2050 targets and thus there is an imperative to reconsider how cars and roads are used. Martin Tugwell added that whilst EEH accept that a shift to electric vehicles and public transport potentially reduces the income generated by vehicle excise duty and fuel duty, there is a need to review, more broadly, other models of public transport that have not kept pace with societal trends.</p> <p>Cllr Yvonne Constance identified the sentence in the proposed response that stated Oxfordshire has been awarded Electric Bus Town funding. She confirmed that this funding has not been released and is subject to a successful business case in March 2022. Phil Southall highlighted the need for the response to reference the affordability issues that arise with a shift to an electric fleet. The cost of electric buses is more expensive and thus operators require significantly more revenue in order to offset higher fleet costs. Securing this additional revenue has been compounded by reduced demand caused by the impact of Covid-19 on ridership. Cllr Steve Broadbent felt the thrust of the road pricing paper was about reducing journeys, in this vein, the number of public transport journeys made in the Heartland should be monitored. Further, he argued that the impact of consumer behaviour should be captured in the response. James Golding-Graham summarised the comments and agreed to incorporate these into the response.</p> <p>The Forum: agreed, subject to amendments, EEH’s response to the Transport Select Committee’s enquiry on zero-emission vehicles and road pricing.</p>	JAMES GOLDING-GRAHAM
8	<p>BUSINESS UNIT UPDATE</p> <p>Naomi Green presented updates on a range of projects being taken forward by the Business Unit. She began by providing a summary of Government’s £760m funding announcement in January to deliver East West Rail between Oxford and Bletchley/Milton Keynes, with services due in 2025. She reiterated that EEH remains unequivocal of the need to deliver East West Rail in its entirety. Mayor Dave Hodgson confirmed that ‘entirety’ is taken to mean extending the service east of Cambridge.</p> <p>Naomi Green proceeded to provide an update on work strands being taken forward to support better freight management across the Heartland. The pieces of work include aggregating, processing and mapping freight data, measuring the impact of construction related freight movements on the road network, study work pertaining to first/last mile freight consolidation and opportunities for rail freight.</p> <p>The programme of connectivity studies was discussed, and Naomi Green advised the Forum that consultants are expected to be appointed to lead on the</p>	



	<p>first two connectivity studies for this financial year imminently.</p> <p>Naomi provided an update on the working relationship with Highways England, and both organisations are working collaboratively. Highways England are developing an STB engagement framework to consider how engagement can be best delivered with STBs across Highways England in a more consistent manner.</p> <p>The Marston Vale Line First/Last Mile Study was discussed, and Forum members were briefed on the way this study will identify packages of first/last mile connectivity measures for stations on the Marston Vale Line.</p> <p>The Traffic Management Act 2004 Part 6 was discussed as a mechanism to enforce moving traffic violations outside of London. The DfT has recognised the Forum’s ambition to enact these powers to transport authorities in the Heartland. DfT officials have requested EEH work with them at an officer level to ensure successful delivery of the powers. EEH Business Unit will update the Forum in May 2021 to report on the success of those conversations. The Forum stressed the importance of having these powers and hoped a successful outcome could be achieved at pace.</p> <p>The Forum:</p> <p>a) Noted the updates on a number of projects across the Heartland.</p> <p>b) Agreed that EEH Business Unit should work with DfT Officials to ensure Part 6 of the Traffic Management Act 2004 is enacted outside of London at pace.</p>	<p>NAOMI GREEN</p>
<p>9</p>	<p>CONSULTATION RESPONSES</p> <p>Antony Swift presented Forum members with four consultation responses that were delegated to the Chair of the Forum to sign and submit. The responses included a submission to the Union Connectivity Review, Oxfordshire Growth Board Strategic Vision, Transport Committee’s Enquiry into Major Transport Infrastructure Projects: appraisal and delivery and the Avanti West Coast Timetable Consultation. All responses were noted and supported.</p> <p>The Forum noted and supported the consultation responses set out in Annexes 1-4.</p>	<p>NONE ARISING</p>
<p>10</p>	<p>FUTURE MEETING DATES</p> <ul style="list-style-type: none"> • <i>Friday 14th May 2021</i> • <i>Friday 10th September 2021</i> • <i>Friday 26th November 2021</i> 	

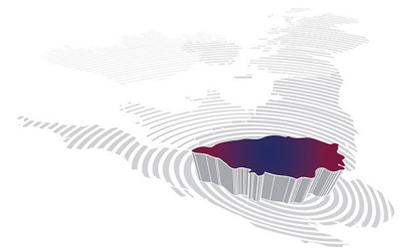


STRATEGIC TRANSPORT FORUM

May 2021: Update on Actions

Action	Update	Status
From 27th November 2020		
<p>The Forum:</p> <p>a) Considered the implications for investment now, and in the future of the Transport Strategy in acting more decisively in the pursuit of Net Zero carbon.</p> <p>b) Supported the proposed changes to the policy and narrative in the Transport Strategy set out in para 3.1.</p> <p>c) Supported the development of Decarbonisation Roadmap by the end of 2021.</p> <p>d) Supported the identification of a regional carbon budget for transport; and the need to commit to de-couple economic growth and traffic/carbon growth.</p>	Complete	EEH Business Unit will shortly commence work to develop a decarbonisation roadmap. Through this, EEH will be able to synthesise the expected Transport Decarbonisation Plan trajectories, along with the Committee on Climate Change pathways, to create a regionally relevant trajectory for the Heartland region.
From 5th February 2021		
<p>Naomi Green advised that she would seek advice from DfT Officials on steps the Forum could take to assist areas currently without Civil Enforcement Powers to obtain them in advance of Part 6 of the Traffic Management Act 2004, being enacted out of London.</p>	Ongoing	Advice was sought accordingly from the DfT. Whilst we have had an interim response confirming the timing for publication of the Regulations relating to enactment of Part 6 of the Traffic Management Act 2004, no explanation has followed yet regarding obtaining civil enforcement powers

<p>The Forum:</p> <ul style="list-style-type: none"> a) Agreed to publish the Transport Strategy as presented in Annex 1, subject to the amendments agreed at the meeting. b) Agreed to publish the Integrated Sustainability Post Adoption Statement alongside the Transport Strategy, subject to the amendments agreed at the meeting. c) Agreed to incorporate the proposed Operating Framework as an annex to the Transport Strategy. d) Agreed to submit the Transport Strategy, including the Operating Framework, to the Secretary of State for Transport. 	<p>Ongoing</p>	<p>The regional transport strategy and Integrated Sustainability Post Adoption Statement were published on 25th February 2021.</p> <p>The transport strategy was also submitted to the Secretary of State for Transport in February 2021.</p> <p>Subsequent to, and based on, discussions at the Strategic Transport Forum, it was agreed that the Transport Strategy would be published without the Operating Framework: it being accepted that the Strategy stood in its own right and that its implementation will be taken forward using existing working relationships.</p>
<p>The Forum:</p> <ul style="list-style-type: none"> a) Agreed a three-pronged approach to the Spending Review submission. b) Provided a steer on the emerging proposition for the Spending Review, identifying areas of particular priority. 	<p>Ongoing</p>	<p>Building on earlier steers, the EEH Spending Review submission will be presented for consideration and approval by the Strategic Transport Forum in July 2021.</p>
<p>The Forum: agreed, subject to the amendments, EEH's response to the Government's Future of Transport: Rural Strategy call for evidence.</p>	<p>Complete</p>	<p>The consultation response was submitted, and a copy published on EEH's website.</p>
<p>The Forum: agreed, subject to amendments, EEH's response to the Transport Select Committee's enquiry on zero-emission vehicles and road pricing.</p>	<p>Complete</p>	<p>The consultation response was submitted, and a copy published on EEH's website.</p>
<p>The Forum:</p> <ul style="list-style-type: none"> a) Noted the updates on a number of projects across the Heartland. b) Agreed that EEH Business Unit should work with DfT Officials to ensure Part 6 of the Traffic Management Act 2004 is enacted outside of London at pace. 	<p>Ongoing</p>	<p>EEH Business Unit has set out the requirements and ambitions of the Forum to the relevant DfT Officials.</p> <p>DfT recognises the need for pace and has committed to publication of the Regulations that support delivery of Part 6 of the Traffic Management Act 2004 in autumn 2021.</p>



Strategic Transport Forum

14th May 2021

Agenda Item 3: Passenger Rail Study Phase Two

Recommendation:

It is recommended that the Forum:

- a) Endorse the conclusions of the Passenger Rail Study Phase Two**
- b) Endorse the service level aspirations identified in the draft report**
- c) Agree the approach to developing the Rail Investment Programme**

1. Strategic Context

- 1.1. In November 2019, England's Economic Heartland agreed a programme of work that would identify the Heartland's strategic rail priorities. The Passenger Rail Study was taken forward by Network Rail and split into two phases. Phase One coincided with the development of the Transport Strategy by providing an evidence led assessment of the Heartland's rail network. The output from this (agreed by the Strategic Transport Forum in June 2020) was the first step in developing a long-term plan for the region's railway.
- 1.2. In August 2020 work commenced on Phase Two of the Passenger Rail Study. It was supported by a steering group whose membership included local authority partners, East West Railway Company and the Rail Delivery Group.
- 1.3. The Phase Two study is underpinned by the role rail can play in taking forward the ambitions of the region's Transport Strategy. The strategy's investment pipeline reflects the opportunities associated with better connectivity by rail, including unlocking large scale sustainable growth opportunities; delivering on our environmental obligations; and enabling the efficient movement of goods and people through our region and beyond.
- 1.4. Figure 1 illustrates the relationship between the two phases of the Passenger Rail Study



Figure 1: Passenger Rail Study Approach

- 1.5. The aim of Phase Two was to identify and prescribe new or improved service levels for priority journey pairings where analysis has demonstrated stronger connectivity by rail would generate significant social, economic and environmental benefits. Phase Two has primarily focused on the monetary value arising through better rail connectivity between our key economic centres. The target service level outcomes have been developed with minimal consideration of the feasibility, deliverability or new infrastructure necessary to realise GVA benefits.
- 1.6. In April 2021, officers agreed the service level outputs contained in the Phase Two draft report and supported the approach to developing a Rail Investment Programme for the region. The Rail Investment Programme will act as the vehicle to take forward the ambitions identified in both phases of the Passenger Rail Study.

2. Assumptions and Methodology Summary

- 2.1. Phase Two has applied multiple layers of economic analysis to identify the region's most valuable regional and inter-city¹ rail flows. The main analytical tool used to develop the outputs was a rail demand forecasting model (MOIRA). It is a system designed to predict how changes to the planned timetable will affect demand. Its strengths are determining the benefits or disbenefits of new services on existing routes by working out corresponding revenue gains. It does not perform well when there is a very low base demand and is less well suited to measure the impact of transformational change (e.g., a new railway line).
- 2.2. The modelling assumed the December 2019 network timetable (prior to the pandemic service level reduction). This has meant East Midlands Railway timetabling changes that take effect from 16th May 2021 were not captured. Notwithstanding, the work has recommended an additional direct service on the Midland Main Line that would run between Luton, Bedford and extended onto Kettering and cities further north (Leicester/Nottingham/Derby) to address the removal of direct services from May 2021 that EEH continue to lobby against.
- 2.3. The modelling assumed that East West Rail (Oxford-Cambridge and Aylesbury-Milton Keynes) is in operation.
- 2.4. The Phase Two Study has not considered flows into and out of London termini. This is to prevent the duplication of Network Rail's London Rail Strategy which is an ongoing work stream.
- 2.5. The Phase Two Study identified 36 flows that are economically sensitive to improved connectivity. These 36 origin/destination pairings have been assigned new service level aspirations to indicate the minimum intervention necessary to unlock the economic potential of these journeys.

¹This Study recognises that some external locations are major towns not cities



3. Study Outputs

3.1. The Phase Two study outputs have provided EEH with an evidence-led assessment of which strategic regional and long-distance journeys have most to gain from an incremental uplift in connectivity. Where applicable, service level targets support existing rail and transport strategies adopted in EEH. The economic values, expressed in GVA, provide an order of magnitude rather than a definitive value. The high and medium value flows are illustrated in Figure 2.

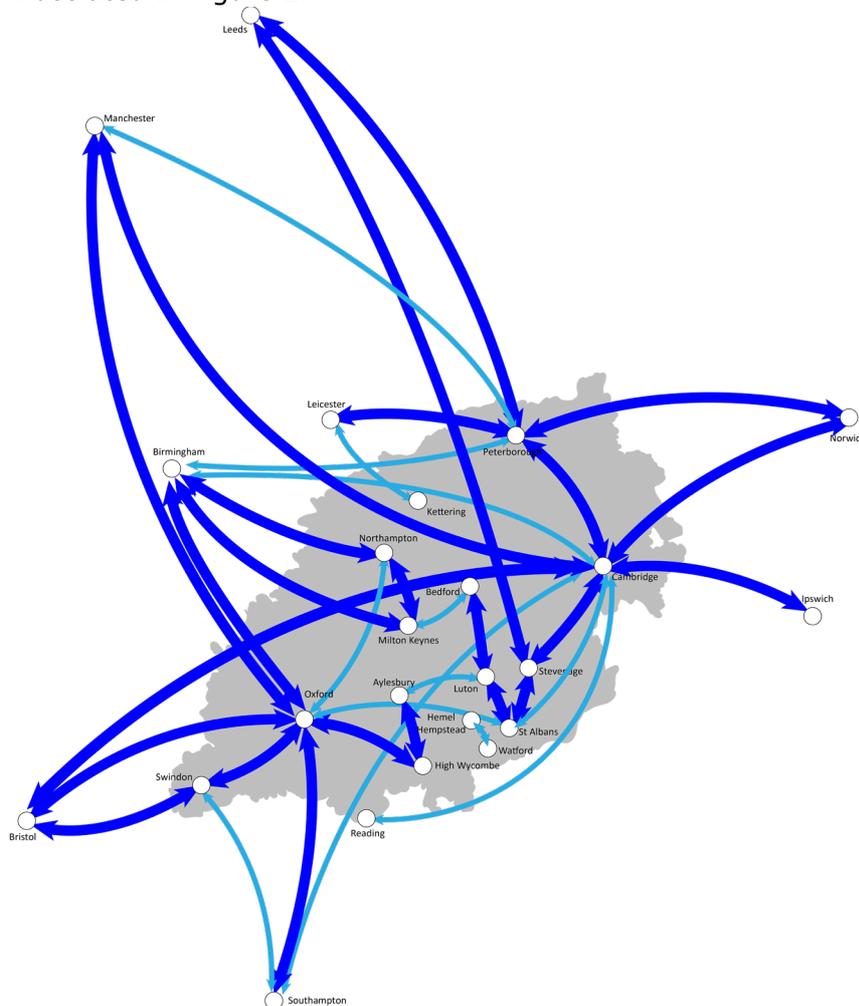


Figure 2 High and Medium Value EEH Flows. Dark blue denotes high value flow and light blue medium value flow

3.2. The study has presented aspirational levels of rail connectivity between the region's most important economic centres. The work illustrates plausible options for the minimum uplift in service that should be pursued to ensure rail becomes the attractive mode of choice over car.

4. Rail Investment Programme

- 4.1. Phase Two has reinforced the findings of Phase One: observing the strengths of the EEH rail network in connecting locations along north-south main lines but falling short of supporting east to west travel unless via interchange at London termini. Travel patterns in the Heartland are much more diverse now in contrast with radially focused routes into London. For rail to play an even more significant role in achieving net-zero carbon this imbalance must be addressed.
- 4.2. Phase Two will serve as the touchstone from which future study work and/or business cases development will emerge from to identify precise options for intervention. The outputs of Phase Two are being fed into the development of the Connectivity Studies. Network Rail will use the outputs of this work to support their Long-Term Planning process and continuous Modular Strategic Planning for the appropriate areas.
- 4.3. It is proposed that EEH develops a Rail Investment Programme using the outputs of the Passenger Rail Study and policy aspirations set-out in the Transport Strategy. The Rail Investment Programme will set the long-term programme of rail scheme development over a 3-5-year period. It will comprise a workstream of preliminary SOBC development to quantify how best to realise the economic potential of the service level aspirations set out in the report. The Rail Investment Programme will feed into and shape EEH's proposition for the Spending Review and the Transport Strategy's Investment Pipeline.
- 4.4. The preliminary SOBCs produced as part of the Rail Investment Programme will deliver a light-touch feasibility, capacity and economic analysis for flows that are not the subject of existing scheme development or business case work currently in the Rail Network Enhancement Process. It will consider which flows are considered most important in terms of enabling planned growth.
- 4.5. For inter-city service level aspirations, EEH will work jointly with the seven STBs and Combined Authorities to identify cross-border priorities that should developed as part of the Rail Investment Programme. An intelligence gathering and mapping exercise is being undertaken jointly with Network Rail to develop the scope and timing of this programme.
- 4.6. A summary of regional flows to be taken forward for consideration in the Rail Investment Programme is provided in Table 1.

Table 1: EEH Regional Flows

Internal EEH Flows	
High Value Flows	Medium Value Flows
Cambridge – Peterborough	Milton Keynes – Bedford
Milton Keynes – Northampton	Watford Junction – Hemel Hempstead
Oxford – High Wycombe	Aylesbury – Luton
St Albans – Luton	Cambridge – St Albans
Oxford – Swindon	Oxford – St Albans
Cambridge – Stevenage	Northampton – Oxford
Aylesbury – High Wycombe	
Bedford – Luton	
St Albans – Stevenage	

4.7. A summary of inter-city flows to be taken forward for consideration in the Rail Investment Programme is provided in Table 2 and Table 3.

Table 2 EEH to Core Cities Flows

EEH x Core Cities Flows	
High Value Flows	Medium Value Flows
Milton Keynes - Manchester	Peterborough - Leeds
Swindon - Bristol	Watford - Birmingham
Northampton - Birmingham	Watford - Manchester
Milton Keynes - Birmingham	Cambridge - Birmingham
Peterborough - Newcastle	Stevenage - Newcastle
Oxford - Manchester	Peterborough - Manchester
Stevenage - Manchester	Peterborough - Birmingham
Cambridge - Manchester	Cambridge - Leeds
Oxford - Bristol	Cambridge - Newcastle
Cambridge - Bristol	
Stevenage - Leeds	
Oxford - Birmingham	

Table 3 EEH to External Hubs Flows

Internal EEH x External Hubs Flows	
High Value Flows	Medium Value Flows
Oxford - Reading	Kettering - Leicester
Cambridge - Norwich	Cambridge - Southampton
Oxford - Southampton	Cambridge - Reading
Swindon - Reading	Peterborough - Ipswich
Peterborough - Norwich	Swindon - Southampton
Cambridge - Ipswich	
Peterborough - Leicester	

4.8. Forum members are invited to reflect on the service level outputs identified in the draft report. They are encouraged to discuss which flows have strong political support or have been/are the subject of scheme development or policy aspirations.

Antony Swift
Project Lead

May 2021

England's Economic Heartland (EEH)

Passenger Rail Study: Phase 2

April 2021

Emma Walker

Network Rail

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1. Executive Summary

- 1.1.1. The England's Economic Heartland (EEH) Passenger Rail Study Phase 2 is the second report produced by EEH and Network Rail to understand how the rail network across the region could be better connected. This report develops the connectivity assessment of the existing network detailed in Phase 1 and identifies new or improved service levels for priority journey pairings where analysis has demonstrated that a stronger connectivity by rail would generate a significant return on investment and better support the economic centres.
- 1.1.2. The EEH region is set to experience transformational levels of economic and housing growth. Currently, the absence of choice in the region's public transport network has limited productivity due to increased road congestion and reduced resilience of the existing transport network. Improving the provision of rail services has the ability to address many of the objectives of EEH's *Transport Strategy: Connecting People, Transforming Journeys*. An enhanced rail offer can achieve this by boosting economic activity, improving inter-regional connectivity, and contributing to the levelling up of the entire economy in a way that is consistent with legally binding net-zero carbon obligations
- 1.1.3. The Phase 2 study has applied multiple levels of economic analysis to identify the valuable flows both internally and externally that connect EEH key locations. Thirty- six flows were identified as having the potential to generate a significant return on investment as a result of improved rail connectivity. These flows were converted into service level aspirations to express what is required to unlock the partial or full value of the flows. Table 1 below summarises the extent of change required to improve connectivity and therefore unlock economic, social and environmental benefits across the EEH region.

Type of Change Required	Number of Flows
Minor Change – <i>requires changes that could be incorporated into existing services.</i>	4
Incremental Change – <i>requires changes to existing services which are likely to be achievable on current or enhanced infrastructure.</i>	15
Transformational Change – <i>requires significant infrastructure interventions to deliver.</i>	17

Table 1 Summary of changes required to achieve the flow potential.

- 1.1.4. The delivery of future schemes such as East West Rail (EWR) (including the eastern section), the capacity released via HS2 on the West Coast Main Line (WCML), Midland Main Line (MML) electrification, and various route enhancements will help contribute to improved connectivity across the EEH region and beyond. However, business as usual investment will not be enough to achieve the ambitions of the region's Transport Strategy and subsequently there is a need to go above and beyond these enhancements to provide a step-change in rail connectivity in this region
- 1.1.5. The service level aspirations identified in this study will be developed further by EEH. EEH, on behalf of its partners, will consider which flows to take forward as a programme of feasibility studies and business cases to understand how best to realise the value of the service level aspirations sets out in this report.

2. Introduction

2.1. Aim of the Passenger Rail Study

- 2.1.1. The England's Economic Heartland (EEH) Passenger Rail Study Phase 2 has been prepared by Network Rail's North West and Central Regional Strategic Planning team in collaboration with EEH.
- 2.1.2. The EEH Passenger Rail Study was separated into two phases. The first (Phase 1 now published) involved a baseline assessment of the current network and levels of service. Phase 2 identifies and prescribes new or improved service levels for priority journey pairings where analysis has demonstrated stronger connectivity by rail would generate a significant return on investment.
- 2.1.3. Mirroring the approach taken to develop the Phase 1 report, the Phase 2 analysis was overseen by a steering group to shape the workstream and agree outputs. Members of the steering group consisted of partner local authorities that represent the EEH Transport Officer Group, East West Railway Company, Rail Delivery Group and Network Rail. This partnership enabled collaboration and input from rail and transport industry experts, integrating local and regional priorities with robust technical analysis. The combination of evidence-led transport planning with local and regional priorities allows EEH and Network Rail to promote the initiatives that best improve the railway for passengers, freight users and local communities.

2.2. An Area of National Importance

- 2.2.1. The Heartland is an economic powerhouse, powered by science and technology innovation and home to world-leading universities. Encompassing the entirety of the Oxford-Cambridge Arc, a national economic priority for the Government, the region is a net contributor to the Treasury. Its location at the heart of the UK, stretching from Swindon across to Cambridgeshire, and from Northamptonshire to Hertfordshire places a unique importance on the quality, reliability, and resilience of its strategic connections regionally and with the rest of the country.
- 2.2.2. The Heartland is home to 5.1 million people and 280,000 businesses employing 2.7 million people in a diverse range of sectors as well as key logistic hubs. The economy was valued at more than £163bn in 2018. Its economic growth (as expressed by GVA) has consistently outstripped the UK average; with GVA growth of 25% recorded in the five-year period between 2013 and 2018 (compared to the UK average of 20%).
- 2.2.3. The region is set to experience transformational levels of economic and housing growth. It has a higher than average rate of population growth, contains some of the UK's fastest growing cities and will increase its housing stock by 25% by the early 2030s; with over half a million new homes committed in local plans.

2.3. A Region with Challenges

- 2.3.1. Notwithstanding the headline economic success, lack of capacity within EEH's current transport system acts as a constraint on growth and reduces resilience and reliability. Productivity levels remain consistently below that of global competitors, which is a consequence in part of increasing congestion on and reduced resilience of the existing transport system. In addition, the absence of choice in the region's public transport network has contributed to carbon emissions from transport being higher than the national average and growing faster, resulting in multiple Air Quality Management Areas being declared.

2.3.2. EEH's *Transport Strategy: Connecting People, Transforming Journeys* sets the policy framework supported by an initial investment pipeline to achieve the 2050 legal target of net-zero greenhouse gas emissions (with an ambition to achieve this by 2040) whilst enabling future economic growth. Enhancing connectivity through environmentally sensitive transport infrastructure is at the heart of ensuring the region reaches its full economic potential.

2.3.3. In a similar vein to Phase 1, this study is driven by the need for the strategic rail network to realise the ambitions of the region's Transport Strategy by delivering on its four key principles:

- Achieving net zero carbon emissions from transport no later than 2050, with an ambition to reach this by 2040
- Improving quality of life and wellbeing through a safe and inclusive transport system accessible to all which emphasises sustainable and active travel
- Supporting the regional economy by connecting people and businesses to markets and opportunities
- Ensuring the Heartland works for the UK by enabling the efficient movement of people and goods through the region and to and from international gateways, in a way which lessens its environmental impact.

2.4. The Role of Rail in the Heartland

2.4.1. Rail has the potential to offer enhanced connectivity to people and businesses by broadening labour market access, unlocking sustainable housing and stimulating new opportunities for economic growth. High quality railway infrastructure must act as a catalyst to accelerate productivity and expand the business capacity of the Heartland's employment clusters by enabling greater levels of economic agglomeration across the Heartland; making the region an attractive place to live, work and invest in.

2.4.2. The EEH region benefits from an extensive reach across the country, spanning six of England's most important main lines. Consequently, investment in its strategic rail infrastructure drives economic activity across the nation. Improved inter-regional rail connectivity, particularly the more diverse travel patterns which are no longer necessarily served solely by travel along one main line, will support other economies within the UK and contribute to the levelling up of the entire economy in a way that is entirely consistent with legally binding net-zero carbon obligations.

2.4.3. Investment in transformational infrastructure, particularly East West Rail and mass rapid transit schemes such as those planned for Cambridgeshire and Milton Keynes, supported by high quality first and last mile provision is the catalyst for improving public transport networks across the whole region and is central to supporting sustainable growth. Securing the right service offer is crucial, given the diverse work patterns of the communities and the need to unlock opportunities for all, including those in rural areas with limited access to the public transport network.

2.4.4. Supported by the policies of the region's Transport Strategy, rail must, and can, provide a competitive alternative to motorised private transport in order to address wider social, economic, and environmental commitments. It is in this context EEH and Network Rail have worked in partnership to develop an evidence led assessment of the benefits of enhancing the region's rail connectivity.

2.5. Covid-19

- 2.5.1. The Coronavirus pandemic has adversely affected public transport usage and the impact has been felt most acutely in the rail industry. The short-term implications of Covid-19 has seen passenger numbers at c.5% of usual patronage. The pandemic's medium- and longer-term consequences are yet to be understood although EEH, along with other STBs, is supporting the Rail Covid Forecasting Group chaired by Network Rail. This group is establishing a portfolio of evidence to analyse and forecast rail use as a result of the pandemic.
- 2.5.2. The Passenger Rail Study is long-term and identifies the relative benefits of introducing or improving connectivity between two places, based on a 'pre-pandemic' assessment of the rail network. The potential long-term impacts following the pandemic have naturally cast doubt on the future role of public transport and this will need to be considered, when known, as part further work that takes forward the outputs of this study. For example, looking forwards it is acknowledged that the levels of overcrowding previously experienced are not going to be acceptable and therefore the rail network must provide a suitable level of capacity to cater for both existing and future passenger numbers.
- 2.5.3. It should be recognised that investment in infrastructure that connects people, supports growth and levels up the country will play an important role in delivering a swift and strong economic recovery from the pandemic. It is important that industry continues to plan for a transport system that makes public transport the natural choice for travel. Bringing this region's burgeoning economic centres closer together by rail will connect people and place with opportunities and services, essential for the future success of the Heartland and the rest of the country.

2.6. Phase 1 Recap and Summary

- 2.6.1. In 2019 Network Rail was appointed as the technical lead for the first phase of the Passenger Rail Study. The aim of Phase 1 was to provide a baseline review of the Heartland's rail network. It provided an evidence-led assessment of the region's existing rail infrastructure, reporting where gaps in strategic connectivity exist. Gaps in the rail network were indicated through generalised journey times and speeds and levels of decarbonised and non-decarbonised services.
- 2.6.2. The Phase 1 report was the first step in developing a plan for the region's rail network. It was endorsed by EEH's Strategic Transport Forum and Network Rail in June 2020 and informed the development of EEH's Transport Strategy. Conclusions drawn from the Phase 1 report have served as the basis from which service level aspirations have been developed as part of this Study. Figure 1 illustrates the relationship between the two phases of the Rail Study.



Figure 1 EEH and Network Rail's Approach to the Passenger Rail Study

- 2.6.3. The summary findings of Phase 1 relevant to this report confirmed that passengers generally experience good levels of rail connectivity when making journeys on a single main line. Each main line is typically served by fast and frequent services that connect important towns and cities directly

to London, enabling passengers to travel easily to and from destinations along each arterial route. Constraints emerge when passengers make journeys across the Heartland that involve moving from one main line to another. The need for interchange worsens journey times which subsequently make journeys by car more attractive. Many of these journeys require interchange via Zone 1 in London, an already congested part of the rail network.

- 2.6.4. One of the report's key findings is the need to improve strategic east-west cross connectivity by rail. The analysis confirmed that delivery of the East West Main Line will not sufficiently address this issue. A key point observed in many case study examples demonstrated that whilst the East West Main Line will transform journeys made along its core between Oxford and Cambridge, the need for multiple interchanges to reach destinations beyond this is a significant barrier to modal shift.
- 2.6.5. Phase 1 recommended that electrification of East West Rail should act as the catalyst for electrification of the rest of the network. By addressing some of the main gaps where diesel trains operate such as Didcot and Oxford to Banbury and the Leicester to Ipswich route via Peterborough and Ely, a case could be made to electrify the East West Main Line and by doing so create a continuously electrified corridor for the benefit of freight, passengers and the environment.
- 2.6.6. The report set out the impetus to utilise released capacity on the classic network resulting from the delivery of HS2. Recasting the timetable presents an opportunity to improve connectivity on the West Coast Main Line (following HS2 Phases 1 and 2A) and on the Midland Main Line and East Coast Main Line respectively (following HS2 Phase 2B).
- 2.6.7. Phase 1 identified ten corridors where generalised journey times between key nodes are noticeably poor. These are a mixture of existing rail corridors where direct services are non-existent or infrequent or sections of the network where there is currently no railway infrastructure to support a journey. The Phase 1 findings have informed the methodology adopted for the economic analysis in Phase 2 and the identification of key nodes discussed in Chapter 3 of this report.

2.7. Study Assumptions

- 2.7.1. To achieve the objective of this piece of work, the Passenger Rail Study Phase 2 has three core assumptions unpinning the analysis:
- The Passenger Rail Study Phase 2 has not considered flows into and out of London termini. These flows were excluded to prevent the duplication of Network Rail's London Rail Strategy which is an ongoing workstream
 - Whilst the Western and Central sections of East West Rail were assumed in the base data, the Eastern section (Cambridge – Norwich and Ipswich) was not. This decision was taken due to the uncertainty associated with the Eastern section scheme which meant the input data was not available.
 - The May '20 Timetable (prior to the pandemic service level reduction) was assumed as the base timetable from which the economic analysis was derived.

2.8. Strategy and Policy Context

- 2.8.1. The intention of this analysis is to be consistent with, and provide further supporting evidence to, the existing rail and transport strategies across EEH. Through the support of the steering group, the

project team have sought to collate a list of existing strategies that complement this study. A list of these strategies can be found in Appendix A: Existing Strategies Across EEH.

3. Methodology

3.1. Overview

- 3.1.1. The aim of the second phase of the Passenger Rail Study is to identify flows internal to EEH and, to and from EEH to selected external locations that could generate a significant return on investment if connectivity by rail is improved. This assessment was undertaken using a multi-criteria economic analysis process which examined the socio-economic and wider economic benefits of improving connectivity to and from a selection of the region's most important key nodes. The outputs from the economic assessment were then converted into aspirational service level improvements.
- 3.1.2. The study consisted of five stages as identified in Figure 2 below. The first stage (2A) identified the role of rail to realise the ambitions of EEH's Transport Strategy. Stages 2B, 2C and 2D then focused on identifying the most valuable flows using a range of economic analysis methods., Finally, stage 2E converted these outputs into service level aspirations.



Figure 2 EEH Passenger Rail Study Phase 2 Methodology

3.2. Economic Assessment

3.2.1. The economic assessment was undertaken within stages 2B, 2C and 2D to prioritise the journey pairings both internally to EEH and from EEH to external locations that are most economically sensitive to a service level uplift.

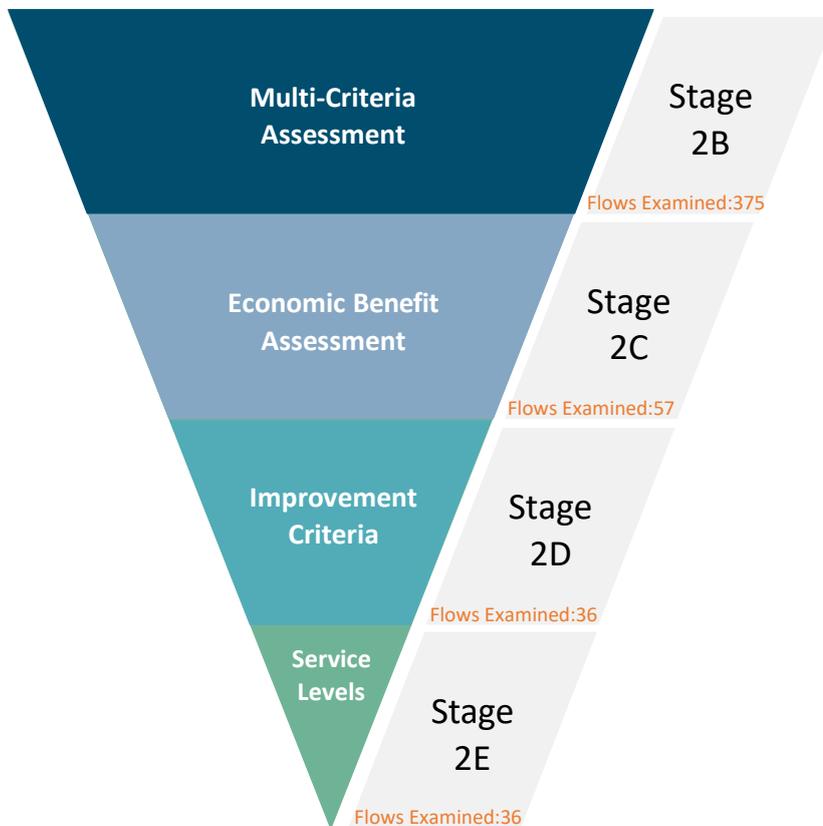


Figure 3 Economic Assessment Summary

3.2.2. Figure 3 ab the Service Outputs (2E).

flows to produce

3.3. Multi-Criteria Assessment (Stage 2B)

3.3.1. Multi-criteria analysis was used to prioritise the list of 29 locations identified in Phase 1 of the Passenger Rail Study to produce a priority shortlist of locations where rail has the potential to deliver the ambitions of the EEH Transport Strategy (the full methodology can be found in Appendix B: Multi- Criteria Analysis). This shortlisting was evidenced-led and focused on five quantifiable macroeconomic factors where increased rail provision was most likely to have the biggest impact to passengers, communities, and the economy. Each of the 29 locations received a score for each criterion culminating in a final score to help rank locations. The economic criteria agreed by the Steering Group were: Population, Employment Density, Gross Value Added (GVA) per job, Rail Service Opportunity, and Market Opportunity. The top scoring 15 locations listed in Table 2 were taken forwards into stage 2C.

Internal EEH Locations	
Aylesbury	Northampton
Bedford	Oxford
Cambridge	Peterborough
Hemel Hempstead	St. Albans

High Wycombe	Stevenage
Kettering	Swindon
Luton	Watford
Milton Keynes	

Table 2 Stage 2B- 15 Internal EEH Shortlisted Locations

3.3.2. In addition to the 15 internal EEH locations shortlisted, a further ten locations external to EEH were also selected by the Steering Group to examine the connectivity of EEH locations to economically significant external hubs. These locations listed in Table 3 were selected qualitatively based on their size, economic importance, and location. It should be noted, the external EEH locations were divided into two sub-groups: Core Cities and External Hubs. The Core City locations were selected from the Organisation for Economic Co-operation and Development’s (OECD) list of core cities. The External Hubs were identified by the EEH Steering Group as locations beyond the EEH region which had significant existing flows. The separation into two categories was to ensure a fair comparison was made between the value of flows analysed in later stages. A technical note explaining the Multi-Criteria Analysis process can be found in Appendix B: Multi- Criteria Analysis .

External EEH Locations	
Core Cities	External Hubs
Birmingham	Ipswich
Bristol	Leicester
Leeds	Norwich
Manchester	Reading
Newcastle	Southampton

Table 3 Stage 2B- 10 External EEH Locations

3.4. Economic Benefit Assessment (Stage 2C)

- 3.4.1. The socio-economic and wider economic benefits of enhancing connectivity to and from the key nodes within the EEH region and beyond were tested to identify the low, medium, and high value flows. For the internal EEH locations, each individual flow was tested resulting in a 15 x 15 matrix and a 15 x 10 matrix for each internal EEH location to each external EEH location These benefits were measured for direct rail users (Level 1) and wider economic benefits (Level 2) .
- 3.4.2. To calculate the Level 1 benefits a 10% reduction in the average Generalised Journey Time (GJT) (see description in Figure 4) in a 24-hour period was applied on a flow by flow basis to identify the economic impact of improving connectivity. The Level 1 benefits measured the value of time (measuring journey time savings and new users who switch to rail) and non-user benefits (the indirect benefits arising from an improved rail service by abstracting journeys from road e.g. environmental benefits for business, leisure and commuting passengers).

Generalised Journey Time (GJT)

GJT is a measure of how long a journey will take without knowledge of the timetable and is calculated from a combination of average train frequency, in vehicle time and interchange time between destinations. Where passengers are required to change trains, an interchange penalty is applied as specified in the Passenger Demand Forecasting Handbook (PDFH) and therefore GJT is often significantly longer than the headline (advertised) journey time.

Generalised Journey Time = $T + S + I$ where;

T = the total station-to-station journey time (including interchange time)

S = the service interval penalty

I = the sum of the interchange penalties for any interchanges required.

Figure 4 Generalised Journey Time (GJT) Description

3.4.3. To calculate the wider economic (Level 2) benefits, the Department for Transport's (DfT's) Wider Impacts in Transport Appraisal (WITA) model was used. Wider economic benefits are improvements in economic welfare which are not captured in typical project appraisal and arise when there are transformation changes to the structure of the economy. There are four types of wider economic impacts:

- a) **Agglomeration impacts** i.e. the concentration of economic activity
- b) **Labour market impacts** i.e. if the cost of travel goes down, working consequently becomes more attractive
- c) **Increased or decreased output in imperfectly competitive markets** i.e. the reduction in transport cost allows the increase in production and service which consequently increases employment
- d) **Labour market impacts from move to more or less productive jobs** i.e. the change of where people chose to work could lead to more efficiency.

3.4.4. After combining the Level 1 and Level 2 benefits for each flow, flows categorised as "low value" were discounted. Each category; Internal EEH x Internal EEH (Table 4), Internal EEH x Core Cities (Table 5), and Internal EEH x External Hubs (Table 6), had its own threshold to determine economic value. The flows that were classified as medium and high value for each category and therefore progressed onto Stage 2D are as shown on the next page.

Internal EEH Flows	
High Value Flows	Medium Value Flows
Cambridge – Peterborough	Northampton – Watford Junction
Oxford – Cambridge	Milton Keynes – Bedford
Milton Keynes - Northampton	Watford Junction - Hemel Hempstead
Oxford – High Wycombe	Aylesbury - Luton
St Albans – Luton	Milton Keynes – Hemel Hempstead
Oxford - Swindon	Swindon - Cambridge
Cambridge – Stevenage	Bedford - Kettering
Aylesbury – High Wycombe	Cambridge - St Albans
St Albans – Bedford	Oxford - St Albans
Bedford – Luton	Northampton – Oxford
Milton Keynes – Watford Junction	Oxford - Peterborough
Peterborough – Stevenage	Milton Keynes – Swindon
St Albans – Stevenage	

Table 4 Internal EEH High and Medium Value Flows

Internal EEH x Core Cities Flows	
High Value Flows	Medium Value Flows
Milton Keynes - Manchester	Peterborough - Leeds
Swindon - Bristol	Watford - Birmingham
Northampton - Birmingham	Watford - Manchester
Milton Keynes - Birmingham	Cambridge - Birmingham
Peterborough - Newcastle	Stevenage - Newcastle
Oxford - Manchester	Peterborough - Manchester
Stevenage - Manchester	Peterborough - Birmingham
Cambridge - Manchester	Cambridge - Leeds
Oxford - Bristol	Cambridge - Newcastle
Cambridge - Bristol	
Stevenage - Leeds	
Oxford - Birmingham	

Table 5 Internal EEH x Core Cities High and Medium Value Flows

Internal EEH x External Hubs Flows	
High Value Flows	Medium Value Flows
Oxford - Reading	Kettering - Leicester
Cambridge - Norwich	Cambridge - Southampton
Oxford - Southampton	Cambridge - Reading
Swindon - Reading	Peterborough - Ipswich
Peterborough - Norwich	Swindon - Southampton
Cambridge - Ipswich	
Peterborough - Leicester	

Table 6 Internal EEH x External Hubs High and Medium Value Flows

3.5. Improvement Criteria (Stage 2D)

3.5.1. The final stage of the economic analysis was to identify which of the medium and high value flows would be more sensitive to a journey time improvement when measured against how the flow is currently performing. This was determined by setting a minimum aspirational Generalised Journey Speed (GJS) (see description in Figure 5) for each flow to achieve based on its market and the necessary reduction in GJT to achieve that GJS. A reduction in GJT was considered by means of three

types of intervention; reducing the overall journey time, improving the service frequency by one train per hour (tph), or reducing the interchange required by one.

Generalised Journey Speed (GJS)
GJS is an additional measure of a journey which incorporates the GJT value (Figure 4) but considers the distance covered that is required for the journey. This helps to identify areas where the GJT is long because of slow journeys or poor frequencies rather than solely a factor of distance. Distance is assumed as the crow flies because in these markets rail is competing against car and removes bias caused by the current rail geography.

*Generalised Journey Speed = $D \div GJT$ where;
D = Distance travelled by the route the rail journey takes (as the ‘crow flies’ distance)*

Figure 5 Generalised Journey Speed (GJS) Description

Aspirational Generalised Journey Speed

- 3.5.2. To understand what level of improvement may be required for each flow it was first necessary to establish the required GJS in order to make rail more competitive compared to car travel and therefore encourage modal shift. To do this a benchmarking assessment was undertaken to establish a target GJS for each market.
- 3.5.3. In total, the study set six aspirational GJSs based on analysis examining best in class connectivity within the region and benchmarking against similarly sized flows from across the UK. These target speeds take into account different market dynamics and affordability. For example, given that Core Cities have access to the inter-city (higher speed) network, it would be inconsistent to expect GJSs to Birmingham to be comparable with Leicester. Thus, each market group has different target GJS. Furthermore, medium value flows are less likely to support investment compared to high value flows and therefore have a lower speed target.
- 3.5.4. Flows that were overperforming in their allocated market group were not examined further as only limited gains could be made from improving the flow. Instead, underperforming flows within the High and Medium Value categories were assessed and given a target GJS to reach.

Internal EEH Flows

- 3.5.5. Flows within the EEH region were benchmarked against the best in class GJSs from within the EEH region. The benchmarks were set against existing well-connected flows in the EEH region because of the strong connectivity found between two locations within the region. The aim of this is to replicate these well-connected flows across the region.
- 3.5.6. The GJS for all high value flows was calculated, and the 75th percentile, or the GJS that 25% of flows meet was set as the target GJS. For the high value flows, the aspirational GJS was set at 32.3 mph. The same method was repeated for medium value flows using the 50th percentile; the aspirational GJS was set at 26.4 mph. The method and aspirational GJS identified is outlined in Table 7.

	High Value	Medium Value
Methodology	75 th percentile speed of high value internal EEH flows (13 identified as high value).	75 th percentile speed of medium value internal EEH flows (12 identified as medium value).
Aspirational GJS	32.3 mph	26.4 mph

Table 7 Internal EEH GJS Methodology

3.5.7. To calculate the aspirational GJS for high and medium value flows in the Core Cities and Other External Hubs, a three-step approach was used to identify similar flows to benchmark against. Locations of a similar population size to the largest EEH areas in this study were considered and are used to benchmark against to represent the aspiration and capability of the EEH region. These locations and the population size are represented in Table 8 along with the size of the largest areas in the EEH region for reference.

#	Location	2020 Population (Estimated)	#	Location	2020 Population (Estimated)
1	Bradford	299,310	14	Walsall	172,141
2	Southend-on-Sea	295,310	15	Warrington	165,456
3	Derby	270,468	16	Slough	163,777
4	Plymouth	260,203	17	Bournemouth	163,600
5	Wolverhampton	252,791	18	Doncaster	158,141
6	Southampton	246,201	19	York	153,717
7	Blackpool	239,409	20	Poole	150,092
8	Norwich	213,166	21	Gloucester	150,053
9	Aberdeen	196,670	-	Milton Keynes	229,941
10	Portsmouth	194,150	-	Northampton	215,958
11	Newcastle upon Tyne	192,382	-	Swindon	185,609
12	Ipswich	178,835	-	Oxford	171,380
13	Wigan	175,405			

Table 8 Sample flows from similar sized locations for Core Cities and External Hubs GJS benchmarking exercise

	Stage 1 Identify similarly sized locations across the UK	Stage 2 Identify flow details (demand & speed) to Core Cities & Other External Hubs	Stage 3 Identify flows which have similar demand levels to the prioritised list of flows
Number Examined	21 Locations	Core Cities – 87 flows External Hubs – 97 flows	Core Cities – 33 flows External Hubs – 17 flows
Description	Identify locations of a similar size to EEH locations in terms of population (150,000 – 300,000).	Using MOIRA, identify the demand and speed between each location to the each of the Core Cities (5) or Other External Hubs (5).	Some flows are particularly slow (e.g. Leeds – Poole = 25mph) and therefore not comparable. The analysis therefore exclusively looks at flows with comparable demand to the key High and Medium value flows (identified in the Economic Benefit Assessment).

Table 9 Core Cities and External Hubs GJS Methodology

3.5.8. The second stage of this process was to use MOIRA¹ to calculate the demand and speed for each flow from the similar sized locations to each Core City and each Other Hubs. With this data, flows that did not meet the demand threshold were cut out, so to only include flows that were comparable in size to priority flows identified by the study. After this filtering, there were 33 sample flows to Core Cities and 17 sample flows to External Hubs and summarised in Table 9.

3.5.9. The sample flows are then used to calculate the target GJS for the Core Cities and Other Hubs individually. The 75th percentile is used to calculate the High Value target GJS and the 50th percentile is used to calculate the Medium Value GJS. Table 10 below demonstrates the difference in the aspirational speed target for Core Cities and Other External Hubs. The Core Cities have a faster speed because they are well served by the intercity network and currently have faster speeds (up to 125mph). The Other External Hubs have lower aspirational GJS because they are more geographically spread out and not always directly served by a rail service.

Category	Method	Aspirational GJS
Core Cities – High Value	75 th percentile of 33 flows	39.4 mph
Core Cities – Medium Value	50 th percentile of 33 flows	32.4 mph
Other External Hubs – High value	75 th percentile of 17 flows	33.4 mph
Other External Hubs – Medium value	50 th percentile of 17 flows	28.7 mph

Table 10 Core Cities and External Hubs Methodology and Aspirational GJS

3.5.10. The final sift stage prior to prescribing service level outputs, and which applies only to Internal EEH x Internal EEH flows, was to sift by target GJT for Business travel. Based on the MOIRA 2019 Demand data, 70% of Business travellers are willing to travel up to 106 GJT minutes, after which demand begins to decrease. This implies that even if large GJT reductions can be obtained within the EEH region, there is unlikely to be much uplift in demand for flows with a GJT greater than 106 minutes. Therefore, internal EEH flows that have a GJT of more than 106 minutes were not considered further.

3.5.11. Making business travel more accessible and competitive against other modes was considered as this supports the objective of levelling up the economy by connecting economic hubs together. Levelling up is currently a key government objective and improving connectivity in the EEH region will facilitate this. Business travel often makes up a large proportion of the weekday off-peak travel market and business travellers have the highest value of time when travelling. This makes business travel a useful market to consider during the early stage of assessment.

¹ A rail industry demand forecasting tool and contains annual demand data and can be used to test the impact of timetable changes on rail demand by using parameters and appraisal values in Passenger Demand Forecasting Handbook (PDFH).

3.5.12. The flows that were taken forward so that service level aspirations could be assigned to them are as follows:

Internal EEH Flows	
High Value Flows	Medium Value Flows
Cambridge – Peterborough	Milton Keynes – Bedford
Milton Keynes – Northampton	Watford Junction – Hemel Hempstead
Oxford – High Wycombe	Aylesbury – Luton
St Albans – Luton	Cambridge – St Albans
Oxford – Swindon	Oxford – St Albans
Cambridge – Stevenage	Northampton – Oxford
Aylesbury – High Wycombe	
Bedford – Luton	
St Albans – Stevenage	

Table 11 Internal EEH High and Medium Value Flows taken forward to Service Level Package Stage

Internal EEH x Core Cities Flows	
High Value Flows	Medium Value Flows
Swindon – Bristol	Cambridge – Birmingham
Northampton – Birmingham	Peterborough – Manchester
Milton Keynes – Birmingham	Peterborough – Birmingham
Oxford – Manchester	
Cambridge – Manchester	
Oxford – Bristol	
Cambridge – Bristol	
Stevenage – Leeds	
Oxford – Birmingham	

Table 12 Internal EEH x Core Cities High and Medium Value Flows taken forward to Service Level Package Stage

Internal EEH x External Hubs Flows	
High Value Flows	Medium Value Flows
Cambridge – Norwich	Kettering – Leicester
Oxford – Southampton	Cambridge – Southampton
Peterborough – Norwich	Cambridge – Reading
Cambridge – Ipswich	Swindon – Southampton
Peterborough – Leicester	

Table 13 Internal EEH x External Hubs High and Medium Value Flows taken forward to Service Level Package Stage

Forming Service Level Aspirations

3.5.13. A service level aspiration was prescribed for each flow that was not currently achieving the aspirational GJS and in the case of EEH internal flows did not have a GJT which exceeded 106 minutes.

3.5.14. Each flow was prescribed a GJT reduction that it should aim to achieve. This was calculated by the difference in current GJT and the GJT required to achieve the aspirational GJS for the respective market type and flow value. To understand how a journey time reduction could potentially be achieved, three different interventions were tested:

1. Reducing the headline journey time by 10%
2. Increasing the frequency by 1 train per hour (tph)

-
-
3. Reducing the Interchange by 1.

3.5.15. The tables below (Tables 14 to 19) set out the Economic Flow Value per 60-year appraisal period. This is the economic benefit (expressed in GVA) over a sixty-year period that would be achieved on a flow-by-flow basis if the aspirational GJS was achieved. They also illustrate the reduction in GJT required to achieve the aspirational GJS, and the percentage reduction in GJT that would be achieved by applying each of the three individual GJT interventions.

3.5.16. It should be noted that a 10% headline journey time improvement could be achieved through a range of different interventions. Faster rolling stock, signalling improvements, track upgrades and timetable changes are a few examples of how headline journey time improvements could be made.

Internal EEH (High Value) Service Level Interventions						
Flow	Economic Value per year (£m, GVA, 60-year appraisal)	Target GJT Reduction (GJS = 32mph)	10% Headline Journey Time improvement		Frequency uplift +1tph	Interchange reduction -1
			Minutes	GJT Reduction	GJT Reduction	GJT Reduction
Cambridge – Peterborough	30.5	29%	5	7%	6%	n/a
Oxford – Swindon	26.8	45%	4	5%	6%	24%
St. Albans – Stevenage	23.6	88%	7	4%	1%	43%
Aylesbury – High Wycombe	21.4	48%	3	5%	8%	n/a ²
Milton Keynes – Northampton	17.9	21%	2	5%	12%	n/a
Oxford – High Wycombe	14.0	28%	4	6%	8%	n/a
Cambridge – Stevenage	12.5	22%	4	7%	7%	n/a
Luton – St. Albans	12.2	16%	1	6%	4%	n/a
Luton – Bedford	1.6	3%	2	6%	6%	n/a

Table 14 Internal EEH High Value Service Level Interventions

Internal EEH (Medium Value) Service Level Interventions						
Flow	Economic Value per year (£m, GVA, 60-year appraisal)	Target GJT Reduction (GJS = 26mph)	10% Headline Journey Time improvement		Frequency uplift +1tph	Interchange reduction -1
			Minutes	GJT Reduction	GJT Reduction	GJT Reduction
Aylesbury – Luton	13.9	75%	11	7%	2%	10%
Watford – Hemel Hempstead	7.6	38%	1	4%	9%	n/a
Oxford – St. Albans	3.9	40%	5	3%	3%	18%
Cambridge – St. Albans	3.4	33%	7	6%	2%	31%
Northampton – Oxford	2.2	24%	5	5%	4%	34%
Milton Keynes – Bedford	2.5	15%	2	6%	5%	33%

Table 15 Internal EEH Medium Value Service Level Interventions

² A direct service is not available throughout the day.

Internal EEH x Core Cities (High Value) Service Level Interventions						
Flow	Economic Value per year (£m, GVA, 60-year appraisal)	Target GJT Reduction (GJS = 39mph)	10% Headline Journey Time improvement		Frequency uplift +1tph	Interchange reduction -1
			Minutes	GJT Reduction	GJT Reduction	GJT Reduction
Oxford – Bristol	30.6	35%	9	6%	3%	24%
Cambridge - Bristol	22.9	29%	10	4%	2%	33%
Swindon – Bristol	22.8	11%	3	6%	8%	n/a
Stevenage – Leeds	22.5	14%	18	7%	3%	n/a
Cambridge – Manchester	22.2	24%	14	5%	2%	39%
Northampton – Birmingham	20.8	14%	6	7%	5%	n/a
Oxford – Manchester	6.7	6%	15	8%	4%	n/a
Milton Keynes – Birmingham	5.8	4%	6	7%	6%	n/a
Oxford – Birmingham	3.1	4%	7	8%	5%	n/a

Table 16 Internal EEH x Core Cities High Value Service Level Intervention

Internal EEH x Core Cities (Medium Value) Service Level Interventions						
Flow	Economic Value per year (£m GVA, 60-year appraisal)	Target GJT Reduction (GJS = 32mph)	10% Headline Journey Time improvement		Frequency uplift +1tph	Interchange reduction -1
			Minutes	GJT Reduction	GJT Reduction	GJT Reduction
Cambridge – Birmingham	15.2	23%	16	7%	3%	n/a
Peterborough – Manchester	9.2	14%	17	8%	4%	n/a
Peterborough – Birmingham	3.7	6%	10	7%	6%	n/a

Table 17 Internal EEH x Core Cities Medium Value Service Level Interventions

Internal EEH x External Locations (High Value) Service Level Interventions						
Flow	Economic Value per year (£m, GVA 60-year appraisal)	Target GJT Reduction (GJS = 33mph)	10% Headline Journey Time improvement		Frequency uplift +1tph	Interchange reduction -1
			Minutes	GJT Reduction	GJT Reduction	GJT Reduction
Cambridge – Ipswich	14.6	27%	8	8%	4%	n/a
Peterborough – Leicester	10.7	21%	6	7%	6%	n/a
Oxford – Southampton	5.0	6%	8	7%	6%	n/a
Cambridge – Norwich	5.0	4%	8	8%	4%	n/a
Peterborough – Norwich	4.5	7%	10	8%	4%	n/a

Table 18 Internal EEH x External Locations High Value Service Level Interventions

Internal EEH x External Locations (Medium Value) Service Level Interventions						
Flow	Economic Value per year (£m, GVA 60-year appraisal)	Target GJT Reduction (GJS = 29mph)	10% Headline Journey Time improvement		Frequency uplift +1tph	Interchange reduction -1
			Minutes	GJT Reduction	GJT Reduction	GJT Reduction
Swindon – Southampton	8.6	34%	9	6%	3%	22%
Cambridge – Reading	6.4	23%	8	4%	3%	24%
Cambridge – Southampton	4.1	10%	17	7%	2%	21%
Kettering – Leicester	0.8	2%	2	5%	10%	n/a

Table 19 Internal EEH x External Locations Medium Value Service Level Interventions

3.6. Service Level Aspiration (Stage 2E)

- 3.6.1. Using the outputs from the economic analysis, specifically the options for GJT explored in Stage 2D, flows which had an interface with other flows were packaged together to achieve mutually beneficial service level packages. Where flows did not overlap or group together to form service packages, individual commentary is given as to how these connectivity improvements could be achieved. The details of these flows and packages can be found in Chapter 4; Service Level Aspirations.
- 3.6.2. Due to the high-level nature of this analysis, the service level aspirations give an indication as to what the service needs to achieve rather than prescribe the precise means of how an output should be delivered. For example, the service level aspiration may note that a 10% reduction in journey time is needed but may not reference specifically how this journey time reduction can be achieved or what infrastructure it would trigger. This is something for EEH as a scheme promoter to investigate and explore further.

4. Service Level Aspirations

4.1. Overview

4.1.1. Service level aspirations were produced for the 36 flows shortlisted from the economic analysis assessment.). Each service level aspiration was graded based on the predicted level of change required to the current service level or infrastructure to deliver the outputs (Table 20).

Type of Change Required	Grading
Minor Change – <i>requires changes that could be incorporated into the existing service level.</i>	1
Incremental Change – <i>requires changes to existing services which are likely to be achievable on current or enhanced infrastructure.</i>	2
Transformational Change – <i>requires significant infrastructure interventions to deliver.</i>	3

Table 20 Level of change required to achieve the Service Level Aspirations

4.1.2. Due to the high-level nature of this analysis, the service level aspirations indicate what the service should achieve rather than prescribe the intervention needed to enable the outputs to be realised. For example, the service level aspirations may note that a 10% reduction in journey time is needed but cannot at this stage be certain on how this can be achieved. Infrastructure identification would require a greater level of detail to understand the localised opportunities and constraints. In developing service level aspirations consideration was given to existing schemes³ in the Rail Network Enhancement Pipeline (RNEP) to understand if committed improvements have the potential to influence the aspirations sought in this study.

4.1.3. It should be noted that in most cases there is insufficient network capacity and/or capability to realise the service level aspirations identified and therefore infrastructure enhancements will be needed to enable the potential value of the flow to be unlocked. Similarly, there may be additional benefits realised through extending the service levels beyond the flows identified based on further economics not considered in this study, timetable constraints and/ or infrastructure constraints to name a few.

4.1.4. Within this report the flows have been grouped based on their location within EEH. However, it should be noted that some flows interact with more than one geographic group and therefore the groupings in this chapter are for reporting purposes only.

³ Schemes in RNEP prior to the 2020 Spending Review

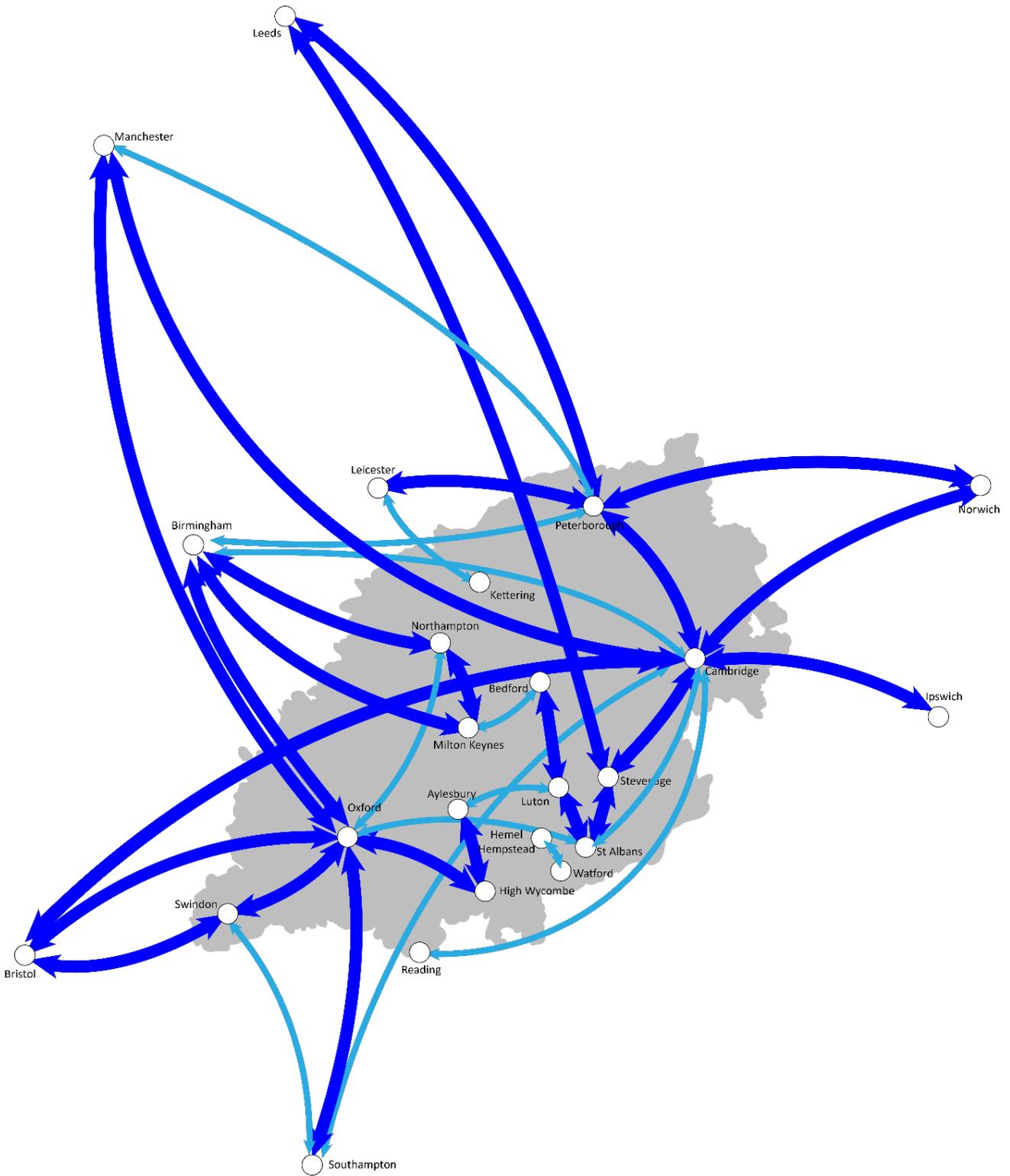


Figure 6 Map of the High and Medium Value Flows Identified. Dark blue denotes high value flows and light blue denotes medium value flows.

4.2. South West Axis

4.2.1. Currently, travel for most locations within EEH (with the exception of those located on the Great Western Main Line (GWML)) to the south-west cities such as Reading and Southampton requires a journey into and out of London with two interchanges. The introduction of East West Rail provides an opportunity to avoid London and instead focuses on Oxford as a key interchange location.

4.2.2. The flows that were identified as economically valuable in the South West Axis are shown in Figure 7 below.

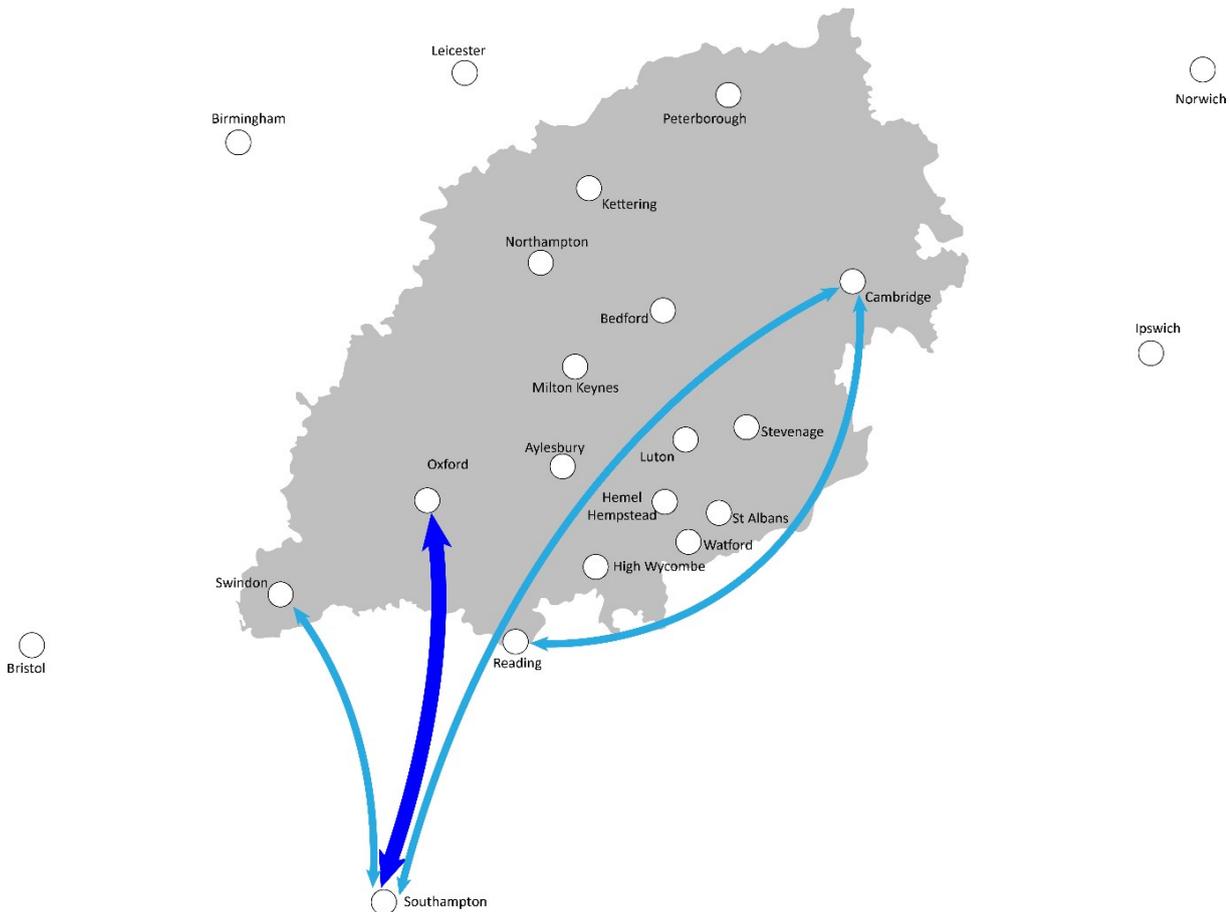


Figure 7 Map of the flows identified for the South- West Axis. Dark blue denotes high value flows and light blue denotes medium value flows.

Service Level Aspirations

4.2.3. To achieve the GJT reduction for flows located along the South-West axis the removal of an interchange and increasing the service frequency is required (Table 21). However, although these two factors combined are not enough to unlock the full value of the Swindon – Southampton flow, they will enable a portion of that value to be unlocked. It is likely that the Swindon – Southampton flow will need a greater improvement which could be supported through the Trans-Wiltshire corridor aspiration.

Flows	Service Level Aspiration	Type of Change
Oxford – Southampton Cambridge – Southampton Cambridge - Reading	An additional direct service between Oxford and Southampton via Reading	3
Swindon – Southampton	A direct service between Swindon and Southampton with a frequency of at least 1tph. This service does not necessarily need to be routed via Reading*.	2

Table 21 Service Level Aspirations for the South- West Axis

** This service level aspiration does not maximise the full value of this specific flow and further development is required to identify what additional enhancement(s) may be needed.*

4.3. Western Axis

4.3.1. As is seen for travel to the south-west, currently most locations within EEH will require the use of London or Oxford (in the future via East West Rail) as an interchange location into and out of the Region

4.3.2. The flows that were identified as economically valuable in the Western Axis are shown in Figure 8 below.

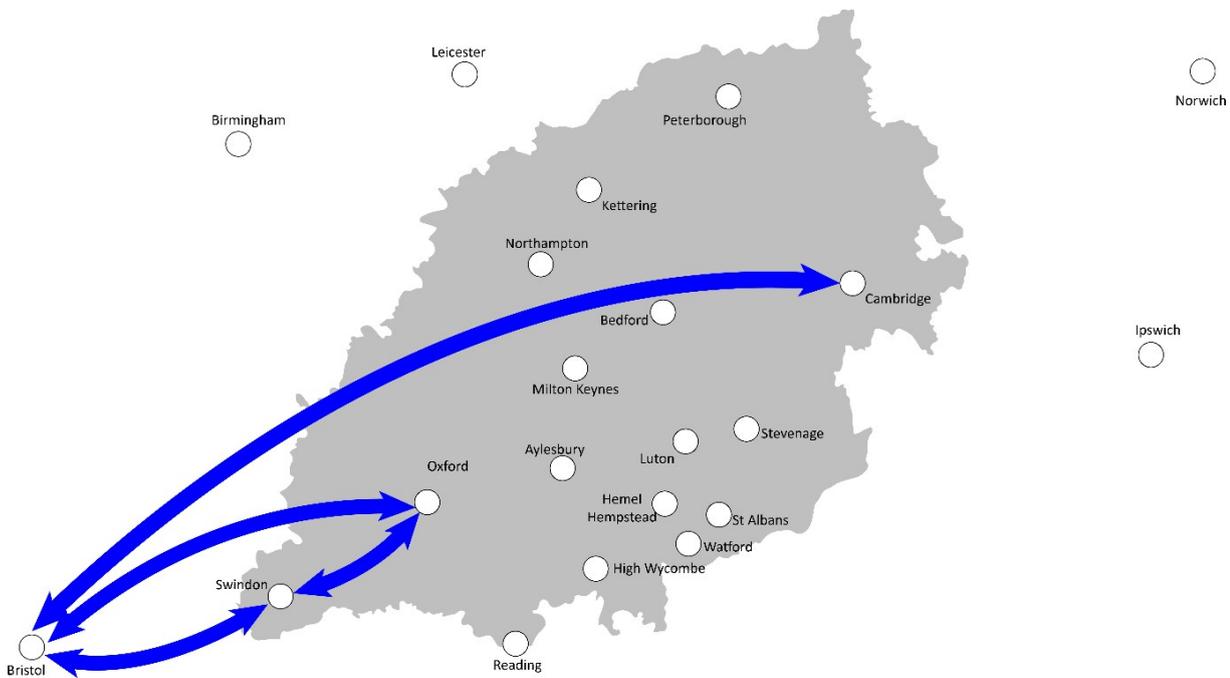


Figure 8 Map of the flows identified for the Western Axis. Dark blue denotes high value flows.

Service Level Aspirations

4.3.3. To achieve the GJT reduction for flows located along the western axis, the removal of an interchange and increasing the service frequency (Table 22) is required.

Flows	Service Level Aspiration	Type of Change
Oxford – Bristol Oxford – Swindon Swindon – Bristol Cambridge – Bristol	An additional direct service between Oxford and Bristol via Swindon	3

Table 22 Service Level Aspirations for the West Axis

4.4. North West Axis

4.4.1. Travel to the north-west from EEH is generally served well via the West Coast Main Line (WCML) but passengers can experience longer journey times with interchanges required elsewhere in the region. The introduction of East West Rail will enable more areas of the region to access the WCML through a single interchange at Bletchley or Milton Keynes.

4.4.2. The flows that were identified as economically valuable in the North West Axis are shown in Figure 9 below.

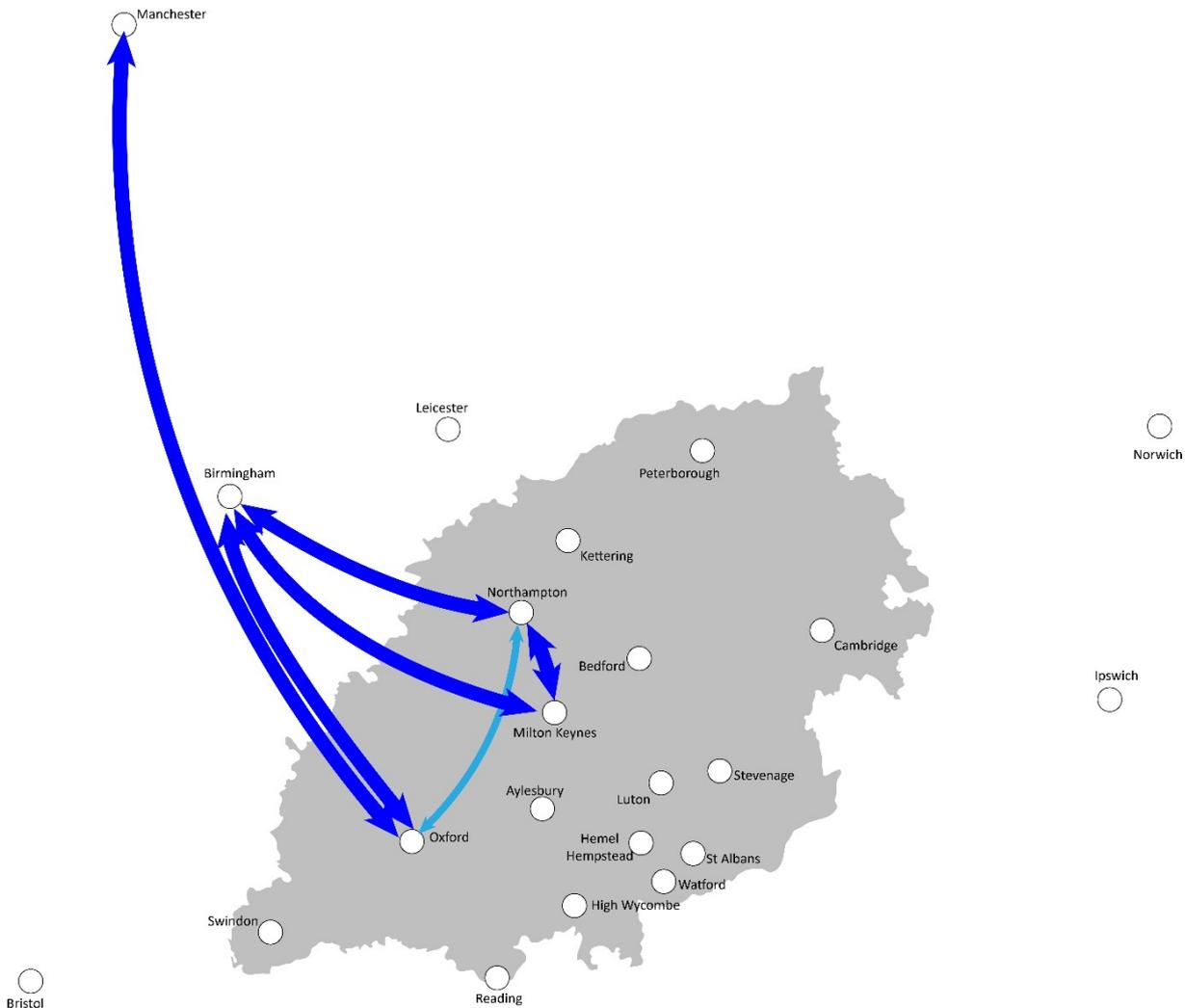


Figure 9 Map of the flows identified for the North- West Axis. Dark blue denotes high value flows and light blue denotes medium value flows.

Service Level Aspirations

4.4.3. To achieve the GJT reduction for flows located along the North-West axis a frequency uplift is typically required (Table 23). The introduction of High Speed 2 (HS2) also provides the opportunity to recast the WCML timetable which could enable connectivity to be improved between locations along the main line.

Flows	Service Level Aspiration	Type of Change
Milton Keynes - Birmingham	A reduction in journey time of 10% (~6 minutes) OR An additional direct train between Milton Keynes and Birmingham via Northampton to address Milton Keynes – Northampton and Northampton – Birmingham connectivity aspirations.	2
Northampton - Birmingham	A reduction in journey time of ~20% (~12mins). This service could be combined by introducing the additional direct train between Milton Keynes and Birmingham.	2
Milton Keynes - Northampton	Two additional trains per hour between Milton Keynes and Northampton. These services could be split by: <ol style="list-style-type: none"> 1. One Milton Keynes- Birmingham service running via Northampton. 2. One Oxford – Northampton service. 	1
Oxford - Northampton	A direct service between Oxford – Northampton which could be achieved, for example, through an extension of an East West Rail Oxford – Milton Keynes service. This could serve as one of the additional trains required for the Milton Keynes – Northampton flow.	1
Oxford - Birmingham	A reduction in journey time of 10% (~7 minutes) OR An additional direct train between Oxford and Birmingham. Improving this service will also support Oxford – Manchester connectivity aspirations	2
Oxford - Manchester	A reduction in journey time of 10% (~15 minutes). An alternative yet indirect option could be to provide a good service interchange onto HS2 at Birmingham Curzon Street	2

Table 23 Service Level Aspirations for the North-West Axis

4.5. Northern Axis

4.5.1. Travel to the north from EEH is generally served well via the Midland Main Line (MML) for locations along this railway but there are longer journey times with indirect routings from elsewhere in the Region. As with the North-West axis, the introduction of East West Rail will provide faster routings for locations on the WCML and more direct routings to locations on the East Coast Main Line (ECML) and GWML via Bedford without having to interchange at London or Leicester.

4.5.2. The flows that were identified as economically valuable in the Northern Axis can be seen in Figure 10 below.

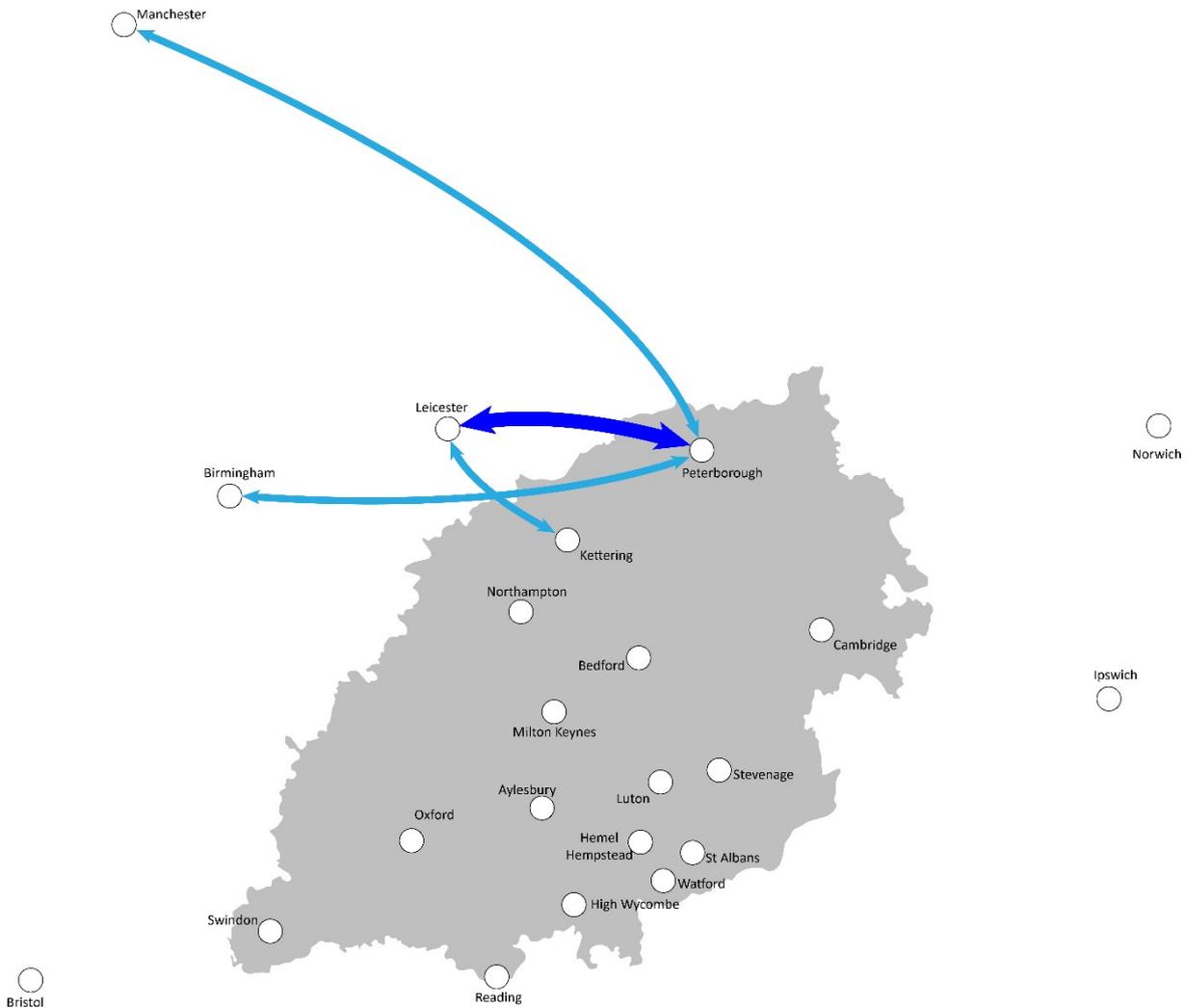


Figure 10 Map of the flows identified for the Northern Axis. Dark blue denotes high value flows and light blue denotes medium value flows.

Service Level Aspirations

4.5.3. To achieve the GJT reduction for flows located along the Northern axis a reduction in journey time is typically required (Table 24). The analysis identified that additional enhancements are required to maximise the full value of flows along the northern axis to cities in the north such as Leicester, Birmingham, and Manchester.

Flows	Service Level Aspiration	Type of Change
Kettering - Leicester	A reduction in journey time of 10% (~2 minutes). This is likely to be achieved by the Midland Main Line electrification programme.	1
Peterborough - Birmingham Peterborough - Leicester	A reduction in journey time of 10% (~10 minutes) OR An additional direct train between Peterborough and Birmingham via Leicester*.	3
Peterborough - Manchester	A reduction in journey time of 10% (~17 minutes) plus an additional direct service between Peterborough and Manchester.	3

Table 24 Service Level Aspirations for the North Axis

* This service level aspiration does not maximise the full value of this specific flow and further development is required to identify what additional enhancement(s) may be needed.

4.6. Eastern Axis

4.6.1. Currently, travel for most locations within EEH (with the exception of those located on the MML) to the cities and towns in the east such as Norwich and Ipswich require travelling into and out of London or interchanging at Cambridge or Peterborough. The introduction of East West Rail provides an opportunity to avoid London and instead focuses on Cambridge as a key interchange location for EEH to access East Anglia.

4.6.2. The flows that were identified as economically valuable in the Eastern Axis are shown in Figure 11 below.

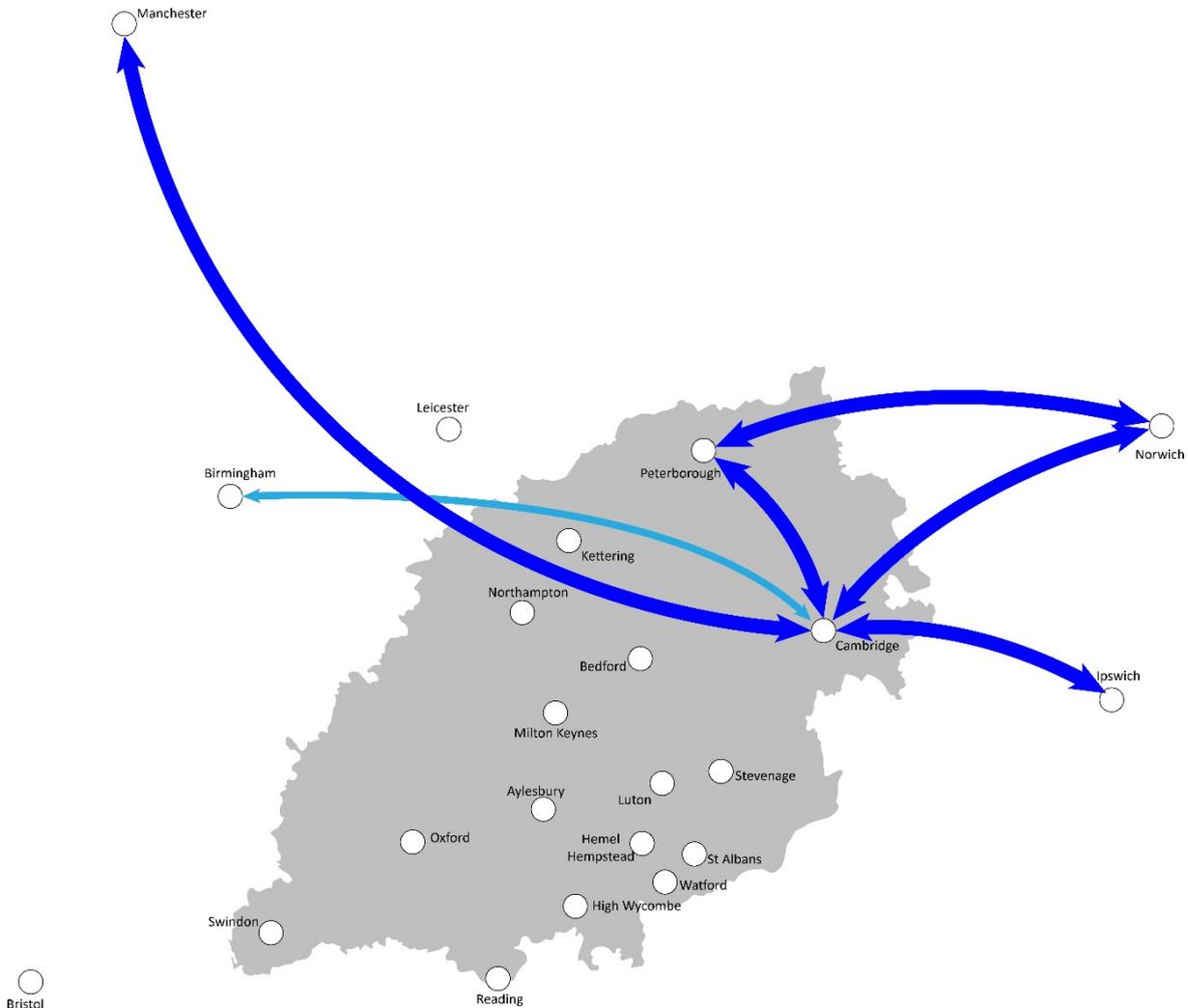


Figure 11 Map of the flows identified for the Eastern Axis. Dark blue denotes high value flows and light blue denotes medium value flows.

Service Level Aspirations

4.6.3. To achieve the GJT reduction for flows located along the Eastern Axis a reduction in journey time and an increase in service frequency is typically required to connect EEH to East Anglia. The analysis identified that greater enhancements are required to unlock the full value of flows from the eastern-axis of EEH to cities in the North-West such as Birmingham and Manchester (Table 25).

Flows	Service Level Aspiration	Type of Change
Peterborough - Norwich Cambridge - Norwich	A reduction in journey time of 10% (~10 minutes) between Peterborough and Norwich via Cambridge, of which ~5 minutes must be between Cambridge and Norwich.	2
Peterborough - Cambridge	A reduction in journey time of 10% (~5 minutes) and an additional direct service between Peterborough and Cambridge*. Improving this service will also support Peterborough – Norwich, Cambridge – Manchester and Cambridge – Birmingham connectivity aspirations.	3
Cambridge - Ipswich	A reduction in journey time of 10% (~8 minutes) and an additional direct service between Cambridge and Ipswich*.	3
Cambridge - Manchester	A reduction in journey time of 10% (~14 minutes) and an additional direct service between Cambridge and Manchester*. Improving this service will also support Peterborough – Cambridge, Peterborough – Manchester and the Cambridge – Birmingham connectivity aspirations.	3
Cambridge - Birmingham	A reduction in journey time of 10% (~16 minutes) and an additional direct service between Cambridge and Birmingham. An improvement in this service will support Peterborough – Cambridge, Peterborough – Birmingham and the Cambridge – Manchester connectivity aspirations.	3

Table 25 Service Level Recommendations for the East Axis

* This service level aspiration does not maximise the full value of this specific flow and further development is required to identify what additional enhancement(s) may be needed.

4.7. Central Axis

4.7.1. Travel for most locations within EEH which are not situated on the same main line are often long and complicated resulting in travellers opting to use personal transport for a more direct journey. The introduction of East West Rail begins to address this need for those travelling through the region’s centre but doesn’t provide a solution for those travelling east-west in the northern or southern periphery of the Heartland.

4.7.2. The flows that were identified as economically valuable in the Central Axis can be seen in Figure 12 below.

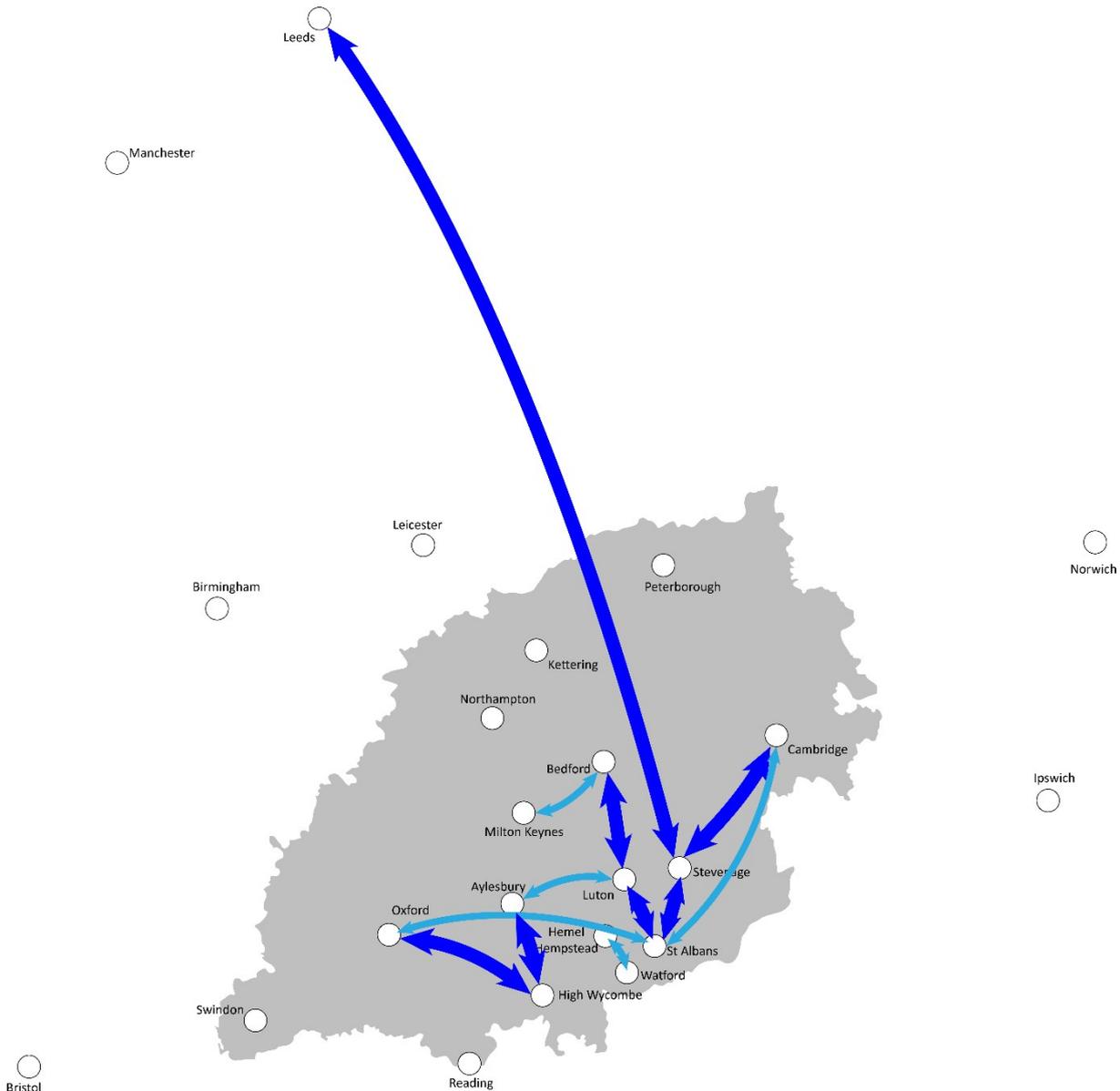


Figure 12 Map of the flows identified for the Central Axis. Dark blue denotes high value flows and light blue denotes medium value flows.

Service Level Aspirations

4.7.3. To achieve the GJT reduction for the Central Axis a direct service is often required between locations, removing the need to interchange in London. However, to reduce the need to interchange usually requires a significant intervention such as a new railway line to unlock the value (Table 26).

Flows	Service Level Aspiration	Level of Change
St. Albans - Stevenage St. Albans - Cambridge	A direct service between St. Albans and Cambridge via Stevenage. It should be noted that to achieve a direct service a new line would be required between St. Albans and Stevenage*.	3
Stevenage - Cambridge	A journey time improvement of 10% (~4 minutes) and an additional direct service between Stevenage and Cambridge*.	3
Stevenage - Leeds	A journey time improvement of ~20% (~36 minutes) between Stevenage and Leeds.	2
St. Albans - Oxford	A direct service connecting St. Albans and Oxford, with no interchange*.	3
St. Albans - Luton	A journey time improvement of 10% (~1 minute) and an additional direct service between St. Albans and Luton*.	3
Luton - Bedford	A journey time improvement of 10% (~2 minutes) OR An additional direct service between Luton and Bedford. This additional service could be extended onto Kettering and cities further north (Leicester/Nottingham/Derby) to address the removal of direct services from May 2021.	1
Milton Keynes - Bedford	A direct service between Bedford and Milton Keynes. This could be achieved by extending a Bedford – Bletchley service onto Milton Keynes, noting the requirement for additional infrastructure or a reversal move at Bletchley.	3
Watford - Hemel Hempstead	An improvement in journey time of 10% (~1 minute) An additional direct service. This could be explored through the capacity released on the WCML from HS2*.	2
Aylesbury - Luton	A direct service between Aylesbury and Luton. To achieve this a new line or new infrastructure connections to existing lines would be required to connect the two towns.	3
High Wycombe - Aylesbury	An improvement in journey time of 10% (~3 minutes) and an additional direct service. This could be explored further through the Chiltern Route Upgrade programme*.	3
High Wycombe - Oxford	An improvement in journey time of 10% (~4 minutes) and an additional direct service. This could be explored further through the Chiltern Route Upgrade programme*.	2

Table 26 Service Level Recommendations for the Central Axis

* This service level aspiration does not maximise the full value of this specific flow and further development is required to identify what additional enhancement(s) may be needed.

5. Conclusion

- 5.1.1. The Phase 2 study has applied multiple levels of economic analysis to identify the most economically valuable strategic flows both internally and externally that connect EEH key locations. The analysis has reinforced the findings of Phase 1, observing the strengths of the EEH rail network in connecting locations along main lines but falling short of encouraging east to west travel unless via interchange at London termini.
- 5.1.2. The delivery of East West Rail will begin to address the demand for cross-region travel by connecting Oxford, Milton Keynes, Bedford, and Cambridge, and could do more through extending the services to new locations beyond the existing planned geography. Notwithstanding this, the modelling in this study has confirmed east – west connectivity for the town and cities to the north and south of the new East West Main Line will remain largely unchanged. It is recognised that opportunities will arise to improve rail connectivity in EEH through future schemes such as the capacity that is released on the West Coast Main Line from HS2, electrification of the Midland Main Line, the Chiltern Route Upgrade programme and the Eastern section of East West Rail.
- 5.1.3. Phase 2 has demonstrated unequivocally that a significant market exists to justify enhancements to regional and intercity travel by rail in this region. The economically valuable flows identified in this study are on all sides of the compass and are agnostic to the infrastructure that improved connectivity may trigger. The spatial spread of the region’s most economically sensitive services showcases the economic value of EEH’s regional centres which can be overlooked in franchise specifications. Further, it identifies empirically that many of these flows are performing below average when compared with neighbours outside the region.
- 5.1.4.36 flows were identified as having the potential to generate a significant return on investment as a result of improved rail connectivity. These flows were converted into service level aspirations to identify what is required to unlock the value of the flows. Where there was a logical interface with more than one flow the service level aspirations were aggregated to form service packages which would contribute to realising the value of multiple flows. Table 27 below summarises the extent of change required to improve connectivity and therefore unlock economic, social, and environmental benefits across the EEH region.

Type of Change Required	Number of Flows
Minor Change – requires changes that could be incorporated into the existing service level.	4
Incremental Change – requires changes to existing services which are likely to be achievable on current or enhanced infrastructure.	15
Transformational Change – requires significant infrastructure interventions to deliver.	17

Table 27 Summary of changes required to achieve the flow potential.

- 5.1.5. The service level aspirations identified in this study will be developed further by EEH. EEH on behalf of its partners will consider which flows to take forward as a programme of feasibility studies and business cases to understand how best to realise the value of the service level aspirations set out in in this report.

6. Appendices

Appendix A: Existing Strategies Across EEH

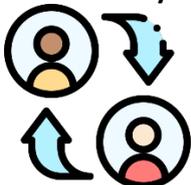
6.1.1. Existing strategies identified by the EEH Passenger Rail Study Phase 2 Steering Group which may, in places, overlap with this study and its output. This is not an exhaustive list of studies or strategies may exist in addition to those mentioned here.

A414 Corridor Mass Rapid Transit System	Great Eastern Main Line SOBC
Abbey Line SOBC (RJR)	Haughley Junction OBC
Bedford Rail Strategy	Hertfordshire County Council Rail Strategy
Cambridge Station	London Paddington – Reading Corridor Study
East West Main Line Strategic Statement	Network Rail's London Rail Strategy
Eastern Section EWR- Interim SOBC	Oxfordshire Connect Programme
EEH Transport Strategy	Oxfordshire Rail Corridor Study (ORCS)
Ely Area Capacity Enhancement Scheme	Soham Station
Ely OBC	SWLEP Rail Strategy
Ely Soham Doubling	West Anglia Main Line Study

Appendix B: Multi- Criteria Analysis

Phase 1 of the EEH Rail Corridor Study considered 29 key locations in EEH region. In Phase 2 of this study, priority flows or areas were identified to enable analysis to initially focus on places that generate higher benefits from an improvement in rail connectivity. Places that were not included in the initial list of priority flows can still benefit from a conditional output development and packages of options. For example, an improvement in connectivity between two key economic centres can be achieved by providing more frequent services between these places, serving and therefore benefitting, intermediate rail stations between these two places. The identification and shortlist of places enables the efficient management of the economic assessment and interpretation of the results.

A Multi-Criteria Analysis (MCA) was used to select places for further assessment. It is a decision-making tool that evaluates multiple (possibly conflicting) criteria as part of the decision-making process. Similar in purpose to a cost-benefit analysis, but with the notable advantage of not being solely limited to monetary units for its comparisons. It also has the added benefit of judging options against various pre-determined criteria. The criteria used for this MCA to identify a list of prioritised locations for further connectivity analysis are outlined below:

Criterion	Explanation
Population 	The larger the population of a location, the more passengers that will benefit from a connectivity improvement.
Employment Density 	Previous analysis has indicated that a minimum level of employment density is required before business rail travel starts to accelerate. Before this employment density level, even if large rail improvements are delivered, it will not significantly increase the number of business travellers.
GVA per Worker 	The productivity of workers will affect how much the economy will 'level up' post a rail connectivity intervention.
Rail Service Opportunity 	This criterion examines how the current Generalised Journey Times (GJTs) to other EEH locations compare to the expected GJT for the size of the location against the national average. The expected GJT is determined by the observed average GJT of similar sized employment centres from across the country.
Market Opportunity (to abstract from Car modal share)	This criterion looks at whether there is a big travel market and the rail modal share. If a location has a large market but a low rail modal share this represents an opportunity for rail to abstract passengers from road. Conversely small markets with low rail modal share are

	<p>unlikely to see large increases in rail patronage with improvements to the rail service and therefore receive a lower score.</p>
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Table 28 MCA Criterion

In terms of scoring, each location was scored between 1 and 5 for each criterion, with 5 being the highest score. In this exercise the current state of each of the locations will be assessed on how they meet transport objectives. Previously it was thought it could be useful to test what the future state of the locations might be, but because the scoring has been aligned to national rather regional comparisons no further insights were gained (no material difference has been identified) in conducting an assessment of the future. The current state of each location is a good indicator of the opportunity to meet transport objectives both now and in the future. Therefore, the analysis has examined just the current state of the EEH locations.

The methodology on how these scores are determined is detailed below:

Criterion 1: Population

The population scoring has been tailored to the size of locations across the UK. Locations with higher populations are scored higher with mainly cities receiving a score of 5.

Score	Score details	Data used to represent the current state
1	<50,000	ONS Population Estimates for local authorities mid-2019
2	50,001-150,000	
3	150,001-300,000	
4	300,001-450,000	
5	>450,000	

Criterion 2: Employment Density

This scoring is based on a national employment density analysis on UK cities undertaken by Network Rail’s Economic Analysis Team. It showed a correlation across cities that once a location reaches 50 workers per hectare rail business travel increased sharply.

Score	Score details	Data used to represent the current state
1	<25 workers per hectare	2018 Business Register and Employment Survey: open access, using the MSOA data where the train station is located
2	25-50 workers per hectare	
3	50-100 workers per hectare	
4	150-200 workers per hectare	
5	>200 workers per hectare	

Criterion 3: GVA per worker

The GVA scoring has aligned to the GVAs per worker of local authorities from across the country. Generally, the data shows that locations in the South have a higher GVA than locations in the North. Higher GVA areas score higher under this criterion because they are able to generate higher economic returns (e.g. tax revenue and increase in economic output) for the country given an improvement to the transport network.

Score	Score details	Data used to represent the current state
1	<£40,000	Office for National Statistics Gross Value Added (Income Approach) December 2017. GVA per worker (2016) by local authority
2	£40,001-£50,000	
3	£50,001-£55,000	
4	£55,001-£60,000	
5	>£60,000	

Rail Service Opportunity

All flows across the UK were examined for this exercise to examine the average rail GJT between locations of a certain size (employment) and distance. The GJT from each key location to the other EEH locations were examined and compared to the expected GJT (the average GJT between locations of a similar job market size based on national UK rail data). If the actual GJTs to EEH locations were higher than the expected GJT this demonstrates that the rail service is underperforming compared to similar locations in the UK, and therefore it scores highly with a score 4 or 5 depending on how far away the actual GJT is versus the expected GJT. Conversely if the actual GJT is lower than the expected GJT it shows that the rail service is over performing compared to the national average and therefore scores poorly.

Score	Score details	Data used to represent the current state
1	<-40%	NR National GJT Analysis examining for all flows the total jobs for both the origin and destination and the GJT between them.
2	-40 to -10%	
3	-10 to +10%	
4	+10 to +40%	
5	>40%	

Criterion 4: Market Opportunity

The market opportunity criterion takes into consideration two factors: the size of the market and the rail modal share. The size of the rail market for this analysis is determined by totalling the business user demand per day to other EEH locations. Only business users have been used, as one of the primary objectives of the EEH phase 2 study is to understand the benefits of improving the B2B (business to business) travel to and from EEH locations. The second factor considered is the rail modal share; this is the percentage of rail business users out of all journeys made between the EEH locations.

Multimodal data is required to undertake this kind of analysis, but unfortunately up to date data with the correct geography and level of detail to cover all the EEH locations is difficult to obtain. Previously it was thought that the study could repurpose data from DfT's WITA model. However, DfT guidance advises that absolute values should not be used for further analysis therefore eliminating this data source for use in the EEH study. The study has therefore decided upon using PLANET data, a model originally used to calculate the benefits of HS2 (NR originally used this data for the long-distance study forecasts in 2011). In PLANET the country is divided into 235 zones (Planet strategic zones), and the model contains the total number of journeys to all other zones by mode type (rail, car and air⁴). For some of the bigger locations in EEH the zones match up well. However, for some of the small locations they have been grouped into a zone e.g. High Wycombe, Bletchley and Aylesbury are grouped into the Buckinghamshire Zone. In this instance a simplification has been made due to the limitations of the data whereby the demand travelling from this zone to other EEH locations is split according to the population of each location.

⁴ But does not include Bus/Coach

Once the data was processed to understand the market size and rail modal share for each location travelling to the other EEH locations the scores for each location were decided upon using the following matrix.

Score	Rail Modal Share by Business Journeys per day to EEH locations category.			
	<750	751-2,000	2,001-5,000	>5,001
1	>2%	>4%	>5%	>20%
2	<2%	2-4%	3-5%	8-12%
3		<2%	2-3%	5-8%
4			<2%	2-5%
5				<2%

The matrix below was decided upon based on the aspirational rail modal share of a higher performing region, namely the Midlands. Regional centres in the Midlands such as Coventry, Nottingham and Leicester have a rail modal share of 2-8% travelling to other regional centres in the Midlands and represent a realistic minimum target for EEH locations to aspire to. There are four scoring categories in the matrix below because small locations with fewer business journeys represent a smaller market opportunity and therefore have a maximum score they can achieve. For larger locations, with >5,001 business journeys per day if the mode share is less than 2%, this represents a larger opportunity to abstract mode share from car onto rail and therefore a score of 5 is awarded. Conversely for large locations if the mode share of rail is already high, it will receive a lower score.

Location Scoring

The performance for the EEH locations under each criterion is displayed below. Locations are currently shown in descending order by population size.

#	Location Name	1) Population		2) Employment Density		3) GVA per Worker		4) Rail service Opportunity		5) Market Opportunity			Total Score	Rank
		Population Size	Score	Employment Density (jobs per hectare)	Score	GVA per Worker	Score	Current vs Expected GJT	Score	Estimated Business Journeys per day to EEH Key Stations	Rail Mode Share	Score		
1	Milton Keynes	269,457	3	72	3	72,348	5	-40%	2	2,730	0.6%	4	17	1
2	Northampton	224,610	3	102	4	51,534	3	-40%	2	10,676	0.3%	5	17	1
3	Swindon	222,193	3	81	3	74,736	5	-26%	2	218	2.5%	1	14	4
4	Luton	213,052	3	91	3	58,076	4	-48%	1	1,922	0.9%	3	14	4
5	Peterborough	202,259	3	92	3	51,217	3	-37%	2	492	2.9%	1	12	9
6	Bedford	173,292	3	68	3	49,776	2	-47%	1	867	0.8%	3	12	9
7	Oxford	152,457	3	119	4	41,208	2	-31%	2	1,012	3.2%	2	13	6
8	St Albans	148,452	2	109	4	47,703	2	-42%	1	1,134	3.6%	2	11	13
9	Cambridge	124,798	2	57	3	50,639	3	-29%	2	2,952	4.5%	2	12	9
10	High Wycombe	124,073	2	48	2	52,790	3	-30%	2	2,640	0.4%	4	13	6
11	Hemel Hempstead	101,849	2	35	2	54,280	3	-41%	1	882	0.4%	3	11	13
12	Kettering	101,776	2	36	2	42,635	2	-20%	2	1,877	0.1%	3	11	13
13	Watford	96,577	2	333	5	46,956	2	-40%	2	513	0.4%	2	13	6
14	Stevenage	87,845	2	40	2	51,962	3	-36%	2	1,820	2.7%	2	11	13
15	Aylesbury	84,890	2	108	4	46,194	2	5%	3	2,807	0.4%	4	15	3
16	Wellingborough	79,707	2	28	2	46,179	2	-24%	2	298	0.4%	2	10	17
17	Corby	72,218	2	20	1	44,649	2	-10%	2	621	0.4%	2	9	20
18	Welwyn Garden City	51,264	2	86	3	45,366	2	-23%	2	448	2.7%	1	10	17
19	Banbury	47,230	1	28	2	54,023	3	-46%	1	550	0.4%	2	9	20
20	Hatfield	44,821	1	52	3	45,366	2	-21%	2	566	2.7%	1	9	20
21	Leighton Buzzard	41,814	1	28	2	62,686	5	-43%	1	299	3.2%	1	10	17
22	Bishops Cleeve	40,423	1	32	2	46,074	2	-29%	2	22	5.7%	1	8	26
23	Bletchley	39,304	1	38	2	72,348	5	-37%	2	649	0.4%	2	12	9
24	St Neots	32,854	1	12	1	52,294	3	-41%	1	766	0.3%	3	9	20
25	Bicester	32,789	1	34	2	54,023	3	-42%	1	423	0.4%	2	9	20
26	Didcot	30,078	1	16	1	57,718	4	-47%	1	379	0.9%	2	9	20
27	Hertford	28,950	1	43	2	46,074	2	6%	3	782	2.7%	2	10	17
28	Huntingdon	25,825	1	28	2	52,294	3	-47%	1	602	0.3%	2	9	20
29	Ely	20,225	1	3	1	51,568	3	-33%	2	944	0.3%	3	10	17

Table 29 EEH Location Multiple Criteria Analysis Results

From the table above, a general, but expected trend is that the larger economic centres tend to score higher than the smaller regional centres. Milton Keynes and Northampton are the two largest regional centres in the EEH area and score the highest, and conversely the smallest regional centres Huntingdon and Ely score on the lower end.

However, the MCA does bring some interesting results for medium sized regional centres. According to the criteria, several locations present a development opportunity, the most prominent being Aylesbury & Watford. Ranked 15 and 13th in terms of population, but in the MCA they rank 3rd and 6th overall because they both have a relatively high employment density indicating there is sufficient economic mass to support the business travel and commuter markets, and they both have high GVAs per head. Aylesbury in particular scored highly because an opportunity to improve the rail service offering exists. It was the one of only two locations out of the 29 where the current GJT is worse than the expected GJT, when compared to a place with similar employment size. Additionally, in Aylesbury there appears to be a relatively large business travel market but a very low rail mode share. This therefore suggests there may be a significant opportunity for rail to take away mode share from car.

Conversely medium sized regional centres such as Wellingborough and Corby scored lower because of low employment densities (<50 jobs per hectare) and lower than average GVAs per head.

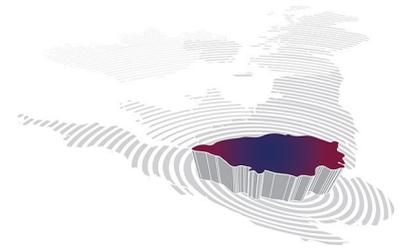
Finalised List of Priority Locations

The purpose of the MCA exercise was to help rank and prioritise locations for further investigation. When ranked in order, a list of 15 locations emerged from the analysis, these are highlighted below:

#	Location Name
1	Milton Keynes
2	Northampton
3	Aylesbury
4	Swindon
5	Luton
6	Oxford
7	High Wycombe
8	Watford
9	Peterborough
10	Bedford
11	Cambridge
12	St Albans
13	Hemel Hempstead
14	Kettering
15	Stevenage

Table 30 List of Prioritised Locations for further analysis

Bletchley has however been removed from the top 16 list as it is believed that the final score for Bletchley may include an overestimation on the size of the opportunity. Bletchley is classified in the same local authority as Milton Keynes and therefore it has inadvertently benefited from the aggregation of data for the GVA per head criteria (it scores a 4, when in all other categories Bletchley scores a 1 or 2). Therefore, it has been removed from the top 16 list due to the limitations in the data overestimating the size of the opportunity.



Strategic Transport Forum

14th May 2021

Agenda Item 4: East West Rail Consultation

Recommendation:

It is recommended that the Forum:

- a) Note East West Railway (EWR) Company's non-statutory consultation**
- b) Provides a steer on the strategic issues within which a response is prepared**
- c) Agree that the EWR Consortium will develop the detailed response**
- d) Delegate approval of the response to the Chair of the Forum**

1. Strategic Context

- 1.1. East West Railway Company launched its second (non-statutory) consultation on the scheme on 31st March: closing date for responses is 9th June.
- 1.2. Key areas of focus for the consultation are: Oxford Station and its supporting infrastructure (including Oxford Parkway and Bicester Village stations); London Road level crossing in Bicester; how best to serve communities on the Marston Vale Line; options for improved stations in Bedford; and five alignment options for the section of new railway between Bedford and Cambridge.
- 1.3. Delivery of East West Rail connecting East Anglia, with central, southern and western England is the shared strategic ambition of the East West Rail Consortium and Forum. The delivery of East West Rail has been at the core of the region's strategic priorities for 25 years and is the single biggest opportunity for our region. Investment in a strategic railway will be at the heart of transforming what is currently a series of discrete functional economical areas and housing markets into a better-connected region, to the benefit of businesses and residents alike.
- 1.4. EEH is committed to working with the East West Railway Company as it develops these proposals further and welcomes the opportunity to respond to the consultation.
- 1.5. It is recommended that the Forum provide an initial steer on the strategic issues and then looks to the EWR Consortium to use its knowledge and expertise to prepare the detailed response.

2. Issues for Consideration

- 2.1. The strategic issues for consideration by the Forum have been separated by the sections of the railway they relate to.

3. Oxford to Bicester

- 3.1. In the west of the Company's scheme, demand for rail travel in Oxfordshire has grown rapidly and above the UK average. Oxford Station is by far the busiest of the Oxfordshire stations with 7.9 million journeys in 2017-18, an increase of 69% over ten years. The

success of Oxford and Oxford Parkway stations illustrate the impact of investment. The introduction of East West Rail services will deliver significant benefits to the Oxfordshire area but constraints on capacity will be experienced most severely at Oxford Station. It is essential that improvements to track capacity between Oxford station and Oxford North Junction (including a long-term solution to the Jericho Line) are delivered to enable a four train per hour service to run in each direction.

- 3.2. The Oxfordshire Rail Corridor Study, funded in-part by England's Economic Heartland and the East West Rail Consortium, identifies the need to enhance platform capacity at Oxford Station to accommodate planned growth and enable East West Rail services to run beyond Oxford. The need for additional through platforms will support regional aspirations to provide direct services from Oxford through Swindon to Bristol and an additional one train per hour service between Oxford and Southampton. EEH will continue to press the case for East West Rail services to extend through to Didcot Parkway from 2024 and onward towards Swindon/Bristol and Southampton from Cambridge.
- 3.3. Oxford Parkway has shown significant growth since opening in 2016 and this growth is forecast to double by 2031 in a scenario where Didcot Parkway becomes one of seven growth hubs in Oxfordshire. The demand for rail services from Oxford Parkway has already placed significant pressures on surface parking. Local Plan housing allocations adjacent to Peartree junction and sites east and west of Oxford Road will create additional demand for rail travel. It is imperative that new development is connected to the station by sustainable modes of transport whilst expanding carpark provision to cater for those arriving from further away.
- 3.4. The expansion and frequency of services serving Bicester Village Station is crucial to improving connectivity across the region. It is important that the increase in demand generated by East West Rail services is managed to maintain local connectivity across the town and promote town centre vitality and accessibility. As identified in the consultation, London Road (Bicester) provides an important link for local traffic and an important route for local bus services. The increase in frequency of trains generated by the introduction of new East West Rail services will mean the level crossing located on London Road could be shut for 30 minutes per hour, increasing to 50 minutes per hour with the introduction of services from Cambridge.
- 3.5. EEH is concerned that the six potential solutions referenced in the consultation are predominantly car-based and do not identify the full suite of solutions that are needed to realise the needs of non-motorised users. The London Road Options Appraisal Report co-developed by Oxfordshire County Council, England's Economic Heartland and the East West Rail Consortium recommended that a package of sustainable transport solutions would most appropriately address severance issues caused by level-crossing downtime. A walking/cycling solution is the preferred approach and will form the basis of more detailed study work later this year. This work will explore the benefits of a non-motorised underpass and footbridge (including other active travel interventions) and subsequently options for a pedestrian underpass must not be discounted at this stage.

4. Aylesbury, Bletchley and the Marston Vale Line

- 4.1. EEH recognises that careful decisions will need to be made regarding the future of train services on the Marston Vale Line. The existing infrastructure means that journey times between Bletchley and Bedford are slow and the user experience is also hampered by the lack of facilities many stations along the route offer. It is accepted that retaining existing stopping services may not maximise the full potential of East West Rail and/or provide value for money. Notwithstanding, it is critical that whichever station/stopping pattern concept is taken forward, investment in the Marston Vale Line is supported by local first/last mile connectivity to expand the reach of station catchments. Provision of sustainable access to stations will deliver health and environmental benefits and reduce the volume of vehicle traffic in local communities. It is also important that the alternative level-crossing access (i.e. new bridges) consider the needs of non-motorised road users.

- 4.2. EEH and East West Railway Company are taking account of first/last mile connectivity requirements necessary along the Marston Vale Line to support each of the train service and station concepts referred to in the consultation. The work is led by a consultancy team and overseen by a steering group consisting of local authorities whose administrative boundaries span this section of the railway. The report is due shortly and will recommend the packages of first/last mile interventions that can maximise the investment in a new Main Line and help realise the railway's full potential.
- 4.3. Each station and train service concept will trigger major engineering works. The construction impact of either proposal will be significant, and it is essential that lessons are learned and applied from the delivery of Western Section (Phase 2) currently under construction. At the last meeting of the East West Rail Consortium constituent local authorities presented some of the challenges they have faced during construction. These lessons have been logged and shared with East West Railway Company and it is important that they are considered and planned for ahead of future works on the Marston Vale Line.
- 4.4. The implication of new infrastructure and train line modernisation will necessitate a temporary closure of sections of the Marston Vale Line either through a series of short blockades or a prolonged blockade. When considered alongside the fact the A428 Black Cat to Caxton Gibbet scheme (10-mile dual carriageway and junction improvements) is at examination stage, there is a risk that two of the region's east-west travel corridors are disrupted concurrently. East West Rail should assess the impact of a prolonged closure of the Marston Vale Line (coupled with level-crossing closures) on the local road network and discuss the findings with interested parties.
- 4.5. EEH is very concerned with the lack of commitment afforded to the Aylesbury-Milton Keynes link. The original East West Rail business case identified the strategic benefits of an Aylesbury-Milton Keynes service. It was included within the scope of the Transport and Works Act Order which was approved by the Secretary of State in February 2020. It is therefore disappointing that this link is now referred to as a 'potential future section of East West Rail'.
- 4.6. EEH via the East West Rail Consortium has pressed the case for investment in Aylesbury-Milton Keynes as a means of delivering the scheme's full transformational potential. Delivery of this link is a key policy of the region's Transport Strategy and provides a vital connection that will unlock access to jobs and education and supports current and future housing growth. Further, without such link the region fails to capitalise on opportunities to develop a new regional service linking Northampton-Milton Keynes-Bletchley-Aylesbury-High Wycombe and the economic opportunities at Old Oak Common (including access to Heathrow Airport). EEH urges East West Railway Company to confirm the Aylesbury-Milton Keynes service as soon as possible.

5. Bedford Area

- 5.1. East West Rail services calling at Bedford will ensure the town reaches its economic and social potential. The new railway will serve as the catalyst for the development of Bedford Station as a national and international interchange hub between East West Rail and the East Midlands. With respect to Bedford St Johns, EEH notes the need to relocate the station to either the west or south of its current location to accommodate the speed and turning radius of new East West Rail services. To develop a more detailed understanding of the implications of each of the options set out in the consultation, EEH is supporting Network Rail colleagues to develop a piece of strategic advice that will recommend the optimum interfaces between Bedford and East West Rail. This piece of work will report in autumn 2021 and inform EEH's response to East West Rail's statutory consultation.
- 5.2. It is encouraging that the consultation recognises the opportunity for improvements at Bedford Station to contribute positively to the regeneration of the town. EEH support local aspirations that seek to connect a newly regenerated station with economic and housing redevelopment opportunities nearby. East West Railway Company should

continue to work with partners in Bedford to ensure expansion plans at Bedford Station designed to accommodate new train services support the ambitions of Bedford Master Plan.

6. Bedford to Cambridge

- 6.1. Each of the five different route alignments proposed between Bedford and west of Cambridge benefit from a shared movement corridor with the A428. Aligning both rail/road infrastructure in this way will ensure new housing and communities are brought forward with the certainty of multi-modal transport connections. It is noted that work is ongoing to consider the benefits of the new alignment serving either a station at Tempsford or St Neots South. Timetabling and station design must facilitate frictionless interchange between the new station and East Coast Main Line services. This will enable better rail access to the Heartland's key regional destinations (e.g., Peterborough) that are not located along the railway's core.
- 6.2. As the consultation focuses eastwards on the approach to Cambridge, it is important that proposals for four-tracking between Shepreth Junction into the city integrate with proposals for the new Cambridge South Station. Delivery of Cambridge South Station is a regional priority and EEH supports the delivery of a new station opening by 2025 and East West services calling there. EEH urges the Company to work with promoters of Cambridge South and the South East Transport project to ensure opportunities are aligned.
- 6.3. East of Cambridge, the Passenger Rail Study taken forward jointly by England's Economic Heartland and Network Rail identified that improving connectivity from Cambridge to East Anglia (Ipswich and Norwich) will unlock regionally significant economic benefits. These benefits could be achieved either through journey time reduction or an additional direct service between Cambridge and Norwich/Ipswich. An Eastern Section pre-SOBC is being developed by East West Rail Consortium. The work is testing the benefits and implications of several new service options that provide enhanced connectivity to Ipswich and Norwich from Cambridge and further west. The findings of the pre-SOBC have confirmed that the Eastern Section has a strong strategic and economic case and extending East West services provides value for money. The true transformational benefit of East West Rail will not be felt until the country has coast-to-coast, through connectivity from East Anglia to the South West. Through the work of the East West Rail Consortium, Sub-National Transport Bodies Western Gateway, England's Economic Heartland and Transport East will work together to continue to make the case for this investment.

7. The Customer Experience

- 7.1. EEH recognises that a customer's experience is shaped by their end-to-end journey; not only how they feel whilst on-board the train. The aspiration for consistent, clock-face timetabling is well-received and a helpful reminder of the ways improvements to public transport are as much about social needs as physical ones. In this vein, EEH encourages East West Rail in its role as Shadow Operator to embrace and/or pioneer anticipated changes to ticketing that better reflect changes in working patterns and other exogenous factors that have arisen in recent years.
- 7.2. The stations served by East West Rail will influence users' level of satisfaction. The opportunity provided by building and expanding stations presents a chance to put the user needs at the heart of new infrastructure. EEH expects at a minimum that each station will provide a rich blend of future proofed facilities and new technology to make journey's simpler and more comfortable. We invite East West Railway Company to consider the ways the design of new stations and the public realm in which it is located prioritises walking and cycling needs over vehicles. This extends beyond accessible routes to the station and must consider the ways vehicle drop/off pickup and parking is kept out of sight from the main station frontage, ensuring that where practical those using the station entrance/exit are met with streetscapes that are not interrupted by motorised transport.

7.3. The need to plan for a safe and inclusive transport system is a principle that underpins the region's Transport Strategy. Station design, including from street to platform and from platform to train, must be completely accessible for all. Empirical research undertaken by the EEH Business Unit has demonstrated that users with impaired mobility are less likely to use stations that do not have level-boarding between platform and train when compared with stations that provide both ramp provision and level boarding. It is essential that a 21st century railway meets the needs of modern travellers and accessibility should ideally be accommodated by improved platform and rolling stock rather than manual ramp provision.

8. Decarbonisation

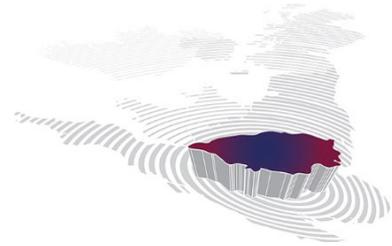
8.1. The imperative to decarbonise the transport sector is now front and centre of transport policy. Overhead electrification offers a significant opportunity to make progress towards national net-zero carbon obligations. As set out in the Transport Strategy, EEH will continue to make the case that East West Rail is electrified as a means of offering the only realistic traction technology capable to support freight flows or long-distance high-speed passenger services that will be using the railway. An electrified East West Rail would enable most rail services operating in this region to operate a fully decarbonised service; enabling freight services using the line to take full advantage.

9. Next Steps

9.1. Following discussion of the key strategic issues at this Forum it is recommended that the Forum looks to the East West Rail Consortium to develop the detailed response. A final copy of the response would be delegated to the Chair of the Forum to agree and sign.

Antony Swift
Project Lead

May 2021



Strategic Transport Forum

14th May 2021

Agenda Item 5: Bus Back Better

Recommendation:

It is recommended that the meeting:

- a) Endorse that EEH work with local authority partners and the EEH Bus Operators Association to support the development of Bus Service Improvement Plans**
- b) Agree that EEH, as the Sub National Transport Body, work with partners to identify key strategic intra-regional bus routes**
- c) Agree that EEH should lead options for pan-regional ticketing and integration solutions on behalf of partners**

1. Context

- 1.1. On Monday 15 March 2021, the government launched Bus Back Better, the national strategy for buses in England. Bus Back Better has at its core the aim to rejuvenate local bus services, making them attractive for passengers, cheaper, easier to understand and use, faster and more reliable, and greener.
- 1.2. Bus Back Better is the most significant change in the landscape for local bus services in England (outside London) since 1986 deregulation. Greater emphasis is being placed on partnership working, with local authorities and bus operators required to form statutory partnerships that can define bus networks, service levels, and fares strategies. The government expects all Local Transport Authorities to develop Bus Service Improvement Plans (BSIPs) and set up Enhanced Partnerships (EPs), as defined in the Bus Services Act 2017.
- 1.3. The COVID-19 pandemic has changed the way people move around and has accelerated trends that were already well established. While temporarily there has been a dip in uptake of public transport, in the long term a thriving public transport system is essential to achieving net zero carbon.
- 1.4. During the pandemic we have seen the considerable scope for businesses to increase use of flexible and remote working while continuing to function and provide services. These changes have potentially significant implications for our transport system. These changes should be captured and reflected in our planning for the Bus Service Improvement Plans.
- 1.5. Members will be aware of EEH's long standing commitment to buses. Through the EEH Bus Operators Association, the Forum has been keen to create a long-term plan to support the role of scheduled bus and coach services in the region. The publication of the National Bus Strategy, and the focus on producing BSIPs, provides the opportunity for the region to further develop its ambition for buses.

- 1.6. Provision of high-quality public transport is a key part of the five-point plan of action set out in the regional transport strategy. Interurban and local bus travel forms an essential part of our transport system, providing many with their primary means of access, as well as providing an alternative to the private car.
- 1.7. However, unless segregated, the reliability of bus and coach services is dependent on a well-performing road network. As a result, the regional transport strategy's Travel Hierarchy puts the needs of the bus at the forefront of our approach to connectivity and investment planning.
- 1.8. As well as prioritising investment in highway provision that can support bus and coach services, the transport strategy recognises the need to prioritise measures that encourage co-ordination between strategic public transport locations, including mobility hubs. Initiatives such as these, which can lead to and enable intra-regional connectivity, as well as connect seamlessly with local services, form the bedrock of the region's approach to a single coordinated transport system.
- 1.9. The DfT has committed £3 billion of funding over five years to support implementation of Bus Back Better. Five investment streams are included in the strategy, with more to follow in due course:
 - £120m for zero emission buses in 2021/22 with regional pathfinder areas to explore funding mechanisms for further investment and roll-out (including private financing, leasing and support from the new UK Infrastructure Bank). Government will invest a total of £400m in 4,000 zero-carbon vehicles over the next five years
 - £25m in 2021/22 (out of £300m total over five years) to build capacity within local authorities, ensuring we have the skills and people needed to deliver the plans. Included in this funding in the creation of a national Bus Centre of Excellence
 - Support for bus priority schemes (funding amount not specified)
 - Support for trials of five Bus Rapid Transport networks (funding amount not specified)
 - One zero emission city – 'a small or medium sized city which wants to create a zero-emission transport system, with extensive bike lanes, a zero-emission bus fleet, and a ban on nearly all petrol and diesel vehicles in the city centre.'

DfT also intends to reform Bus Service Operators Grant (BSOG), changing it from a fossil fuel subsidy to a mileage-based subsidy.

2. Bus Service Improvement Plans – Setting the Ambition

- 2.1. Local Transport Authorities are expected to have Bus Service Improvement Plans (BSIP) in place by October 2021, and subsequently updated annually.
- 2.2. BSIPs are required to include targets for journey time and reliability improvements, patronage growth and passenger satisfaction, set up a bus passenger charter with rights and redress, and identify locations where bus priority measures are needed (bus lanes, traffic management, or – more ambitiously – Bus Rapid Transport networks) with plans to put these in place. There are expectations for comprehensive, updated information at bus stops and online, covering fares and real-time running information.
- 2.3. In the Heartland, a significant number of bus journeys are made across local transport authority areas as communities connect with employment, skills and leisure opportunities across the wider region. It is therefore essential that a successful BSIP incorporates wider intra-regional journeys by bus.

- 2.4. There is a need for the region to clearly identify those key intra-regional bus routes that will be most effective in supporting our wider strategic transport ambitions. Using the Regional Evidence Base and building on experience gained through the methodologies undertaken for other regional studies, such as the Passenger Rail Study, England's Economic Heartland is well placed to provide advice on key intra-regional bus routes.
- 2.5. Subject to agreement by the Strategic Transport Forum, EEH Business Unit proposes to commence a small-scale piece of analysis. Evidence from the work will inform the Forum, local authority partners and bus operators of the key intra-regional bus services that would best be included and prioritised within Bus Service Improvement Plans in order to support delivery of a single public transport system across the region.
- 2.6. Going forward, and in future years, the Strategic Transport Forum will want to ensure EEH is able to continue to support annual reviews of BSIPs, particularly capturing our region's ambitions for innovation and the future of mobility.

3. Delivering Improvements through Enhanced Partnerships and Franchising

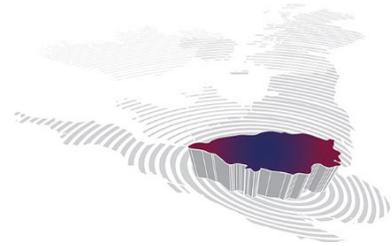
- 3.1. Bus Back Better also requires local transport authorities to establish one or more Enhanced Partnerships (EP) covering the whole bus network in their area.
- 3.2. Local authorities can also choose to pursue franchising – but must set up EPs as an interim measure. EPs must be developed in partnership between the local transport authority and bus operators.
- 3.3. The process for developing and agreeing an EP is likely to be onerous and resource intensive for both local authorities and operators. EEH Business Unit is committed to providing support to partners. Through knowledge sharing, coordination of best practice and drawing on expertise from the sector nationally, the Business Unit will support the region's capacity and capability to respond to the challenges and opportunities presented by the National Bus Strategy, particularly in seeking to develop EPs.

4. Integration and Ticketing

- 4.1. Bus Back Better encourages multi-operator tickets to be offered at the same or similar prices to single-operator equivalents and suggests local authorities and operators introduce daily and weekly capping.
- 4.2. Further work is needed at the national level to gain a clearer vision and strategy for integration and ticketing. DfT is preparing for a whole scale review of the existing architecture and frameworks around integrated ticketing. By commissioning a review, DfT hopes to take a central position on ticketing across the industry. There is a keen ambition for STBs to play a key role.
- 4.3. Subject to the Forum's agreement, EEH Business Unit is committed to leading the region's ambitions for integration and ticketing, working with existing and future plans being developed by individual partners and bus operators. The Business Unit will continue to liaise with DfT, operators and partners over the coming months to set the ambition for ticketing and integration in the Heartland region.

Naomi Green
Head of Technical Programme

May 2021



Strategic Transport Forum

14th May 2021

Agenda Item 6: Strategic Roads Update

Recommendation:

It is recommended that the meeting:

- a) Note the announcement in respect of the Oxford to Milton Keynes section of the Expressway, and welcome the presentation on next steps at the July meeting of the Forum**
- b) Agree to make a representation in support of the A428 Black Cat to Caxton Gibbet Development Consent Order**
- c) Agree that the EEH Business Unit the Sub-national Transport Body, if required, at the examination of the Development Consent Order**

1. Context

- 1.1. The regional transport strategy sets out how we can realise the economic potential of the region while achieving net zero carbon emissions from transport, with an ambition to do so by 2040.
- 1.2. Delivering on this ambition requires a whole systems approach to the identification of strategic infrastructure requirements. It also requires us to bring together consideration of strategic transport networks, with digital connectivity and indeed energy systems, both of which are essential to support future transport solutions.
- 1.3. Within this approach, the need to invest in the Heartland's road network to support both planned housing and economic growth and to enable our existing communities and businesses to flourish, remains.
- 1.4. However, we must plan a different future for our roads network for both passengers and freight – one that puts decarbonisation at its centre and encompasses strong environmental principles. This will require a shift in the way we look at roads and their role in serving communities and businesses in the future.
- 1.5. The regional transport strategy sets out where investment in the strategically important road network will be supported. Policy commitments state that that investment in the Strategic Road Network and Major Road Network will be supported where it meets one or more of the following criteria and is consistent with wider environmental objectives:
 - i) Protects and enhances the existing infrastructure asset
 - ii) Delivers a solution to an identified problem on the existing infrastructure asset
 - iii) Enables access to new economic opportunities and/or housing growth
 - iv) Enables delivery of sustainable transport linkages such as public transport and active travel improvements

- 1.6. The wider context provided by the Transport Strategy helps set the direction of travel for the outcomes required from investment in the road network.
- i) A network which puts decarbonisation at the forefront of investment priorities
 - ii) A network which supports the Heartland's wider growth aspirations
 - iii) A network which is future ready
 - iv) A network which is managed, planned and delivered in a way that is consistent with the Travel Hierarchy (policy 4 of the Transport Strategy)
 - v) A network which considered the impact on the transport network locally
 - vi) A network which encompasses strong environmental principles
- 1.7. Forum members will also wish to note the Department for Transport's position in respect of the role that investment in roads has to play in supporting public transport and active travel modes. Recent communication from the DfT reinforced their expectation that:
- As trailed in the vision document "[Gear Change](#)", the Government wishes to see new road schemes meeting the highest standards (based on the new cycle design guidance LTN 1/20) in order to attract larger numbers of cyclists, for users of all abilities and disabilities. The Government was clear that they were keen for this to be managed in a way that avoided adding further cost to schemes that were already funded or causing lengthy delays to their delivery.*
- 1.8. Additionally, and as stated in [A Better Deal for Bus Users](#) (2019, updated 2020), the Government has asked that
- "All new road investments in England which receive central UK government funding will be required to either support bus priority measures or explain why doing so would not be necessary or appropriate in that instance. All future funding bids will need to explicitly address this issue."* As with active travel measures, the Government is keen to avoid adding further cost to schemes that are already funded or causing lengthy delays to their delivery but has asked that road schemes in receipt of Government funding do take note of this requirement.
- 1.9. It is on this basis that England's Economic Heartland continues to plan and prioritise investment in the region's road network.

2. Oxford to Cambridge Expressway

- 2.1. On 18th March 2021, the Secretary of State for announced his decision to cancel the Oxford to Cambridge Expressway project between Oxford and Milton Keynes.
- 2.2. Whilst the announcement provides clarity on the Expressway, there remains a need to identify the infrastructure required to enable the delivery of planned growth (economic and housing) between Oxford and Milton Keynes: a need that is identified as a strategic priority for the region in the Transport Strategy
- 2.3. Building on the insight already developed by Highways England, the Department for Transport has made funds available to investigate the need for more targeted road interventions in the area.
- 2.4. As the Sub-national Transport Body, England's Economic Heartland is working with DfT and Highways England to take forward this work as a matter of urgency. The scope of the work is expected to consider road connectivity needs across a wider area in support of the Transport Strategy. Highways England will present the proposed next steps for the Oxford – Cambridge Road study to the Strategic Transport Forum in July 2021.

3. A428 Black Cat to Caxton Gibbet

- 3.1. The Development Consent Order required for the A428 Black Cat to Caxton Gibbet Improvement was submitted to the Planning Inspectorate at the start of 2021. On 24th

March the Planning Inspectorate confirmed that the DCO submitted had been accepted by them: this means that the DCO now moves to the next stage in the process.

- 3.2. The Planning Inspectorate will now start the process of a full examination of Highways England's proposals: this is expected to include a Public Examination later this summer. The Inspectors' recommendations will be considered by the Secretary of State for Transport who will make the final determination as to whether to proceed with construction of the scheme.
- 3.3. The EEH Business Unit has been working closely with Highways England throughout the preparation of the DCO. It is recommended that EEH, as the Sub-national Transport Body, make a representation in support of the DCO as part of the examination process, and that, if required, the EEH Business Unit attend the examination.

4. Other Strategic Corridors

- 4.1. The EEH Business Unit continues to work with its partners to ensure that the case for investment in the strategically important A34 and A1 (south of Huntingdon) corridors is taken forward. Further advice on progress with planning solutions to these corridors will be presented to the Strategic Transport Forum in July 2021.

5. Planning Future Investment - Road Investment Strategies

- 5.1. The Road Investment Strategy 2 (RIS 2) was published in March 2020. Included within RIS2 is clarity over Highways England's expected role for Sub-national Transport Bodies (STBs) going forward, including opportunities to cultivate existing working relationships between Highways England (HE) and STBs.
- 5.2. STBs will play a central role in engagement in the strategies in the following three areas:
 - i) Providing a multi-network perspective at a large scale, helping to guide a more integrated transport network and strengthening resilience where people would otherwise be dependent on an individual SRN link (acknowledging that solutions to an SRN problem may lie elsewhere in the transport system)
 - ii) RIS 3 pipeline – playing an active role in articulating the benefits of proposals being examined in their area (for example, where a proposal can support wider and more ambitious Local Plans for development)
 - iii) Location of strategic studies – RIS2 outlines how STBs are carrying out work on strategic corridors and looks to working together to ensure the same work is not commissioned by both parties.
- 5.3. Highways England is now in the early stages of planning RIS 3. Key parts of the evidence base being developed by Highways England to inform RIS3 are the development of route strategies; the RIS3 pipeline development; and additional studies such as the 'Role of the Urban SRN'.

Route Strategy development

- 5.4. Highways England's approach to route strategies has now been approved by the Secretary of State, allowing HE to publish its document setting out its approach to route strategies.
- 5.5. From July 2021 HE will work with EEH to take forward the programme of studies underway within the Heartland. Route Strategies are a key part of informing and setting out our strategic priorities for the Strategic Road Network moving forward. EEH Business Unit will work closely with local authority partners to ensure that the Heartland's priorities are reflected in the strategies. Delivery of route strategy reports is planned for next spring.

RIS3 Pipeline

- 5.6. Included in RIS2 was a pipeline of over 30 schemes across England that will be considered for further scoping work to inform RIS3. The RIS3 pipeline is not exhaustive, however £347m has been allocated over the RIS2 period towards their scoping and development.

There are three RIS3 pipeline schemes in the Heartland area, these are:

- i) M11 Junc 13 West (Tranche 2)
- ii) A47/ A1101 Elm Road Junction (Tranche 2)
- iii) A404/ M40 Junc 4 High Wycombe (Tranche 3)

In addition, the A404 Bisham Roundabout is in Tranche 3.

EEH Business Unit has been working with DfT and Highways England to ensure schemes not originally included within the RIS3 Pipeline are considered for investment in RIS3. This includes, A1 East of England, A45 Stanwick to Thrapston and A14 Junction 10a.

Future Trunking/Detrunking Options

- 5.7. In parallel, Highways England is undertaking a number of strategic studies into both the role of the urban SRN and future trunking/detrunking options.
- 5.8. HE is seeking input from partner organisations to inform the studies. This will draw on knowledge of the local area to identify local context, issues and aspirations. Local Authorities covered by the studies are being contacted by Highways England, STBs will also be asked to provide a regional input.

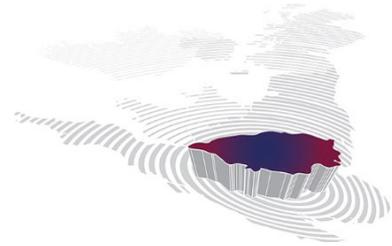
6. Major Road Network

- 6.1. The November 2020 Spending Review resulted in a one-year settlement for the Major Road Network (MRN) programme for 2021/22. This has not stopped MRN and Large Local Majors (LLM) schemes proceeding, however individual schemes do now require approval to proceed from HM Treasury. DfT officials have been working with local authorities on a scheme by scheme basis to support the process.
- 6.2. The Department remains committed to the MRN/LLM programme. DfT has confirmed that the 2024/25 end date for this round of MRN/LLM investment is no longer absolute but officials are keen for local authorities to maintain momentum and deliver at pace.
- 6.3. In March 2021, EEH Business Unit met with DfT MRN team to discuss the future of the Major Road Network Programme. STBs have been encouraged to develop a long-term plan for the future of the Major Road Network in their areas. Included in this will be a need to capture a pipeline of future priorities in anticipation of further calls for schemes.
- 6.4. The Department has not yet given a date or process for STBs to set out their longer-term ambitions for the MRN. Keen to proceed at pace, EEH Business Unit will shortly commence a piece of work to plan and set out our ambitions for the Major Road Network. Transport Officers have been asked to submit early stage scheme proposals by 30 June 2021. Proposals submitted after this time will not be excluded from sifts, the early stage call is merely to get a sense of demand for future MRN investment.

Naomi Green

Head of Technical Programme

May 2021



Strategic Transport Forum

14th May 2021

Agenda Item 7: Oxford to Cambridge Arc Spatial Framework

Recommendation:

It is recommended that the meeting:

- a) Note the update on the Oxford Cambridge Spatial Framework, including timings for its development**
- b) Agree that the published Transport Strategy should form the basis for considering connectivity requirements as part of the Spatial Framework**
- c) Note the work underway to ensure the regional transport strategy, and its associated evidence base, is used to inform and shape the Framework**
- d) Note the extent to which wider issues that influence future travel demand will need to be considered by both the regional transport strategy and the Spatial Framework**

1. Context

- 1.1. Forum members will be aware that, in February 2021, Government published its introduction to the Spatial Framework for the Oxford to Cambridge Arc.
- 1.2. The document sets out the Government's ambition to use the Spatial Framework as the means by which, working with partners, it will take a strategic approach to planning for growth and infrastructure in the area defined as the Oxford to Cambridge Arc.
- 1.3. In doing so, the Government aims to realise the transformational opportunities that exist within the region, including; supporting a high performing economy; preservation of the environment; and ensuring places and communities are able to grow and flourish.
- 1.4. England's Economic Heartland's geography includes the entirety of the Arc. As the Sub-national Transport Body for the Heartland, the work undertaken by this Forum to publish the regional Transport Strategy will form a key component of the Spatial Framework.
- 1.5. As the Regional Evidence Base underpinning the Transport Strategy demonstrates, economic linkages beyond the Arc geography (enabled by our transport system) are just as important as those within the Arc. Indeed, a number of the opportunities identified in the Arc Economic Prospectus have strong linkages with economic clusters in both Swindon and Hertfordshire, and beyond.
- 1.6. The Government anticipates that development of the Spatial Framework will take around two years and will involve three phases of work, with associated external engagement:
 - i) Engaging on a vision for the future of the Oxford-Cambridge Arc: MHCLG intends to undertake wide public engagement to shape a vision for the area, with a consultation planned in summer 2021.

- ii) In spring 2022, MHCLG will publish and consult on their proposed policy framework to support delivery of their vision for the Arc
- iii) In autumn 2022, MHCLG will publish the Draft Spatial Framework for consultation. To inform the development of the draft Spatial Framework, MHCLG commits to undertaking: spatial analysis, option testing, impact assessments and stakeholder engagement.

The final Spatial Framework is intended to be rolled out following this final consultation phase.

2. The Spatial Framework

- 2.1. In its introductory document, the Government sets out three areas of priority for the Spatial Framework:
 - the natural environment and climate change
 - connectivity and infrastructure
 - the availability of homes where they are most needed
- 2.2. The Government has set out its intent for the Framework to having significant weight in the planning system through its expected status as national planning policy. Through this, the Government intends that the Framework will guide local plan production and decision making. The document also commits to having national transport policy status and in doing so it will guide the plans prepared by local transport authorities.
- 2.3. The Government's aspiration of the Spatial Framework is for transport policies to sit alongside land use policies to create an integrated land use and infrastructure plan. We have not yet had confirmation of how the Government intends to take forward this aspiration.
- 2.4. The ambition to improve the integration of land use and transport planning has long been an issue for places and is to be welcomed.
- 2.5. However, such considerations, whilst important, represent only part of the challenge when it comes to aligning activity across public sector policy as part of a commitment to embedding a 'systems approach' to delivering a place-based approach. As we have been reminded over the last 18 months, wider considerations can (and do) have a significant influence on the nature and scale of travel demand.

Relationship with regional transport strategy

- 2.6. In February 2021 the Forum agreed the region's Transport Strategy. It was published on 26th February and has been submitted to the Secretary of State for their consideration.
- 2.7. The strategy represents the culmination of two year's work. It is grounded in a robust knowledge of the region (captured by the regional evidence base), informed by a series of technical pieces of work commissioned by EEH and its partners, and shaped by two rounds of public engagement. It has also been subject to the Integrated Sustainability Appraisal undertaken in parallel with the technical work.
- 2.8. The transport strategy therefore provides a robust framework on which the Spatial Framework can consider connectivity in the region, particularly in the context of aligning transport decisions with a range of other decisions.

Collaboration on the Evidence Base

- 2.9. As Forum members will be aware, a core function of EEH is to develop and maintain a regional evidence base which is then used as the foundation upon which the regional Transport Strategy is developed.
- 2.10. The content of the regional evidence base is set out in Annex 1. This represents a significant investment by both EEH partners and DfT and is freely available to all EEH

partners, local authorities and Government departments (and their agencies and companies) for their own use.

- 2.11. In this way, the regional evidence base offers EEH and that wider group of partners the opportunity to have a consistent baseline upon which individual pieces of work can be subsequently built. It is in this context that the programme of connectivity studies now underway are using the regional evidence base, thereby addressing the need to reduce avoidable costs incurred by the public sector.
- 2.12. It is also in this context that the EEH Business Unit is working closely with officials from MHCLG and DfT to ensure that the regional evidence base is understood and utilised in support of the work on the Arc Spatial Framework.
- 2.13. The regional evidence base is updated on an annual basis by the EEH Business Unit working with local authority partners across the Heartland. The most recent update of ProjectView (completed in April 2021) includes, for the first time, data on housing down to sites of 25 homes or more. As such it is the most comprehensive set of data held in a single location, in this way, within the region.
- 2.14. The Spatial Framework introductory document commits Government to develop an open source, digital platform for data and evidence to support collaboration between government, businesses, local councils and communities in decision-making. MHCLG has committed to working with local partners to create an accessible digital platform for economic, planning and environmental data, and easy-to-use tools so that people – including the public and businesses – can engage meaningfully in the process.
- 2.15. The EEH regional evidence base has the potential to form the foundation of such a capability.

3. Wider Considerations

- 3.1. At the heart of the regional Transport Strategy is the recognition that moving forward our focus needs to be on connecting people and places with opportunities and services.
- 3.2. What flows from this is the need to plan the future of our transport system by putting the needs of the user at the heart of decision-making process.
- 3.3. Fundamentally this is no more than a restatement of the truism that travel is a derived demand. And, whilst it is important to improve the integration of land use and transport planning, it is also essential to take into account the implications of new and emerging trends on existing travel demand.
- 3.4. The regional Transport Strategy sets out a policy framework for connectivity that allows us to do just that. Forum Members will be reassured by the work of the EEH Business Unit to demonstrate to MHCLG how the regional Transport Strategy represents a robust and appropriate framework on which the Spatial Framework should base its principles of connectivity.
- 3.5. Our experience during the pandemic (see Annex 2) has demonstrated the pace at which change in travel demand and behaviours can be achieved in response to external drivers.
- 3.6. The regional evidence base clearly sets out the need for change in order to meet the legal requirement to achieve net zero carbon: the work on the Pathways to Decarbonisation has set out the need for pace in realising that change.
- 3.7. Whilst travel has rebounded as the restrictions required to control the pandemic have been lifted, it is important to remember that the pre-pandemic 'normal' was not sustainable.
- 3.8. If we are to realise the ambition of the regional Transport Strategy we must exploit, to the fullest extent possible, the opportunities created by the acceleration of the trends set out above to achieve a 'new normal'. The ambition underpinning the Spatial Framework offers an opportunity to deliver such an approach.

4. Our Transport System: the need for a new Business Model

4.1. In parallel with the wider considerations set out above, it is clear that there is a need for a national debate about the way we pay for investment in our transport system and for our use of that system.

4.2. The drivers for such a debate are threefold:

- *Electrification of our transport system* – Forum members have been at the forefront of championing the need to achieve net zero carbon faster than the legal requirement. Electrification of our transport system will be an integral component of realising the Forum’s ambition.

A consequence of electrification will be that the revenues raised through Vehicle Excise Duty and fuel duty will reduce significantly. Investment in the Strategic Road Network and Major Road Network is funded using a proportion of the funds raised through VED and fuel duty: the remainder forming part of the Government’s wider revenues.

No change in the VED and fuel duty regimes is unlikely to be sustainable moving forward. Given the pace at which the Government is encouraging the take up of electric vehicles, the need for action is become more pressing.

- *Bus Services* – notwithstanding the welcome commitment made by the Government in *Bus Back Better*, the reality is that the decline in scheduled bus services in large parts of the Heartland reflects the failure of the current business model for such services. That weakness, particularly with regard to rural and peri-urban bus services, has required revenue investment by local transport authorities. Pressures on those authorities’ revenue budgets has inevitably led to a reduction in, and increasingly the loss of, services.
- *Rail Services* – the much-awaited Williams review is expected to confirm the move away from franchises towards concessions. Pre-pandemic the business model for franchises took advantage of the high demand for peak hour travel to generate significant revenue: indeed, such was the scale of demand many commuters experience cramped travel conditions.

Moving forward, it is highly unlikely that such a situation will be acceptable from a public health perspective. Moreover, with the adoption of hybrid ways of working the demand for rail travel during the peak hour will not be as insensitive to change as it is at present. In short, whilst a flattening of the peak hour might be welcome from the perspective of more efficient use of rolling stock, there will be consequential implications for revenues.

4.3. The need to consider how we pay for investment in the transport system, and our use of it, has to be led by the Government.

4.4. However, the need for such a debate provides the opportunity for EEH and its partners to consider what changes in the business models for individual elements of the transport system might be required in order to achieve the changes in travel demand and behaviours required by the regional Transport Strategy.

4.5. For example, the repurposing of the transport system in support of an outcome driven, placed based approach to long term sustainable growth may require changes in the relative costs of travel by different modes. The publication of the DfT’s Transport Decarbonisation Plan will provide further impetus as to the need to ensure our approach to the planning, development and management of our transport system embraces wider social and environmental considerations, in addition to economic ones.

5. Next Steps

5.1. The Forum’s work in producing the regional Transport Strategy provides a vision-led, evidence-based foundation on the ambition for the Arc Spatial Framework can build.

- 5.2. The Strategy identifies the importance of effecting change in travel demand and behaviours. It also recognises the need to improve the integration of land use and transport planning.
- 5.3. At the same time, our experience during the pandemic period has shown the extent to which the acceleration of trends within society is changing the nature and scale of travel demand.
- 5.4. The growing recognition that our current business model for investing in the transport system and paying for our use of it, adds a further dimension requiring consideration.
- 5.5. All of the above serves to emphasise the importance of a strong linkage between the work of EEH as the Sub-national Transport Body and the Growth Body proposed by the Government to oversee the work on the Arc Spatial Framework.

Martin Tugwell
Programme Director

May 2021

EEH Regional Evidence Base

The Regional Evidence Base, which has been built from the bottom up, comprises a number of detailed pieces of work, all of which are available to the Heartland partners, both within the region and nationally:

- GIS-based Databank – containing information on known plans for growth (economic and housing). The databank is updated annually using information supplied by local planning authorities and local enterprise partnerships
- Policy Scenario Model – a regional model that is used to assess the relative implications of alternative scenarios. The model has the ability to consider both alternative development scenarios (scale and distribution of future growth) and alternative policy scenarios. Its back-casting ability enables the interventions required to achieve a particular outcome to be explored
- Population Segmentation – part of the output from a technical study linked with our First Mile/ Last Mile project, this provides insight into the behaviours of the region’s residents in a way that complements this strategy’s user-centred focus
- Pathway to Decarbonisation – making use of the National Infrastructure Systems Model (NISMOS) to inform this strategy’s approach to de-carbonising our transport system
- Passenger Rail Study – a baseline assessment of the Heartland’s rail network and levels of service, providing an evidence-led review of existing rail infrastructure and identifying where strategic connectivity gaps exist
- Opportunities Mapping – mapping the scale and geographical extent of planned growth (economic and housing) against the backdrop of today’s current situation
- Technical Studies – the output of technical work commissioned to explore specific aspects of our transport system.

Accelerated Trends within the Economy and Society

1. What we have seen as a consequence of the pandemic is an acceleration of a number of trends that have been underway for some time, trends that have changed the nature of some travel demand and which are creating opportunities to effect the change to our transport system that is set out in the regional Transport Strategy.

2. In particular, we have seen:

- *A further acceleration in e-commerce* – with people and businesses making even greater use of services that bring goods to their door-step: whilst this has seen further pressure on the traditional retail model (with many town centres seeing an increase in the number of empty units), there are also indications of growth in the use of local shops where these provide the opportunity to access goods without the need to travel so far.

There is clearly an opportunity to redefine the role of our town centres, in part aided by the need to consider what the future role of existing town centre developments. Choices made in response to these opportunities have the potential to significantly change the nature and scale of future travel demand.

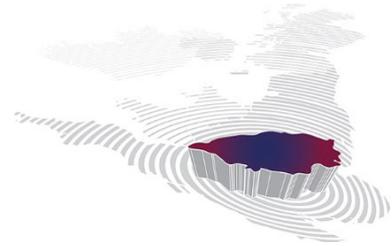
- *An expansion of on-line services* – organisations in both the public and private sectors have actively pursued solutions that provide access to their services on-line, both as a means of improving access to them and reducing the cost of their delivery.

During the pandemic we have seen this trend accelerated with, for example, widespread adoption of remote consultations by surgeries and on-line tuition across the education sector. Again, choices made by organisations in relation to the way services are provided will change the nature and scale of future travel demand.

- *Adoption of remote working* – transport strategies and policies have championed for some time the potential for improved digital connectivity to reduce the need to travel. During the pandemic we have seen large parts of the economy adopt remote working at a scale hitherto unimagined.

It is increasingly clear that the benefits (to the transport system) of remote working – in both public and private sector – are significant. An increasing number of businesses have indicated that they will embrace what has become known as hybrid ways of working moving forward.

A consequential implication of hybrid ways of working is the likelihood of a flattening of the traditional peak hours. Prior to the pandemic the need to provide the capacity required to accommodate the peak hour was often the key determinant. The adoption of hybrid ways of working creates the opportunity to avoid the need for investment in 'peak capacity'.



Strategic Transport Forum

14th May 2021

Agenda Item 8: Work Programme 2021/2022

Recommendation:

It is recommended that the meeting endorses 2021/2022 Work Programme

1. Context

- 1.1. Forum Members will be aware that Sub-national Transport Bodies are the Department for Transport's preferred structure for engaging with local areas and regions on strategic transport issues. Increasingly, and following the success of our engagement and contributions to date, DfT is also looking to Sub-national Transport Bodies to support the development and delivery of national policy priorities (both existing and emerging).
- 1.2. DfT provides funding to Sub National Transport Bodies in order to enable them to prepare, and subsequently implement, regional Transport Strategies. At present DfT funding is on an annual basis. England's Economic Heartland, in partnership with the wider STB7 community, is working with DfT to ensure a multi-year funding settlement is secured for all STBs as part of the (2021) Spending Review. As Forum Members are aware, DfT's annual settlement for England's Economic Heartland is supported by local funding contributions, provided by constituent members.
- 1.3. The added value of EEH's work on the Transport Strategy is that the Secretary of State for Transport subsequently has regard to it in decisions relating to national investment programmes. It's on this basis that Highways England works with EEH as they develop their five-year investment plans (the Road Investment Strategy), likewise the rail sector works with EEH as part of the long-term strategic planning of the rail system (infrastructure and services). It is also why the DfT look to EEH (and the other STBs) to provide advice in respect of the Major Road Network programme.
- 1.4. In addition, the accumulated knowledge and experience held within the STBs provides DfT with the opportunity to better capture insight that informs the development of national policy. For example, through its work on transport decarbonisation, EEH has been a trailblazer for this kind of approach, with the input from STBs (collated by EEH) feeding into the forthcoming Transport Decarbonisation Plan.
- 1.5. Reflecting both the expectations of DfT and, through the regional transport strategy, the ambitions of partners, the EEH work programme for 2021/22 has been submitted to DfT (Annex 1). The programme is designed to ensure that EEH supports the ambitions of its partners by:
 - i) Working to ensure delivery of known priorities through the existing investment programmes – this includes projects such as East West Rail, A428 Black Cat to Caxton Gibbet, A47 Wansford to Sutton, delivery of the enhancements at Oxford Station and on the Midland Mainline, and developing long-term solutions to the A34 and A1 corridors.

- ii) Ensuring the Investment Pipeline associated with the Transport Strategy continues to be developed and used to shape inputs from the Heartland to future fiscal events, starting with the Spending Review this autumn. The output from the programme of Connectivity Studies now underway will be a key mechanism in this regard, together with the output from the EEH/NR Passenger Rail Study, and work taken forward by the partners in support of the National Bus Strategy.
 - iii) Continuing to provide thought leadership in developing affordable, deliverable solutions that will implement the published Transport Strategy. As a strategic collaborative partnership, EEH can work across policy sectors and interests in a way that enables real progress to be made in realising a user-focused transport system.
- 1.6. In order to reflect these requirements, the EEH Work Programme is balanced across all three areas. The programme ensures sufficient time is provided to supporting the delivering of existing priorities, planning future investment needs and supporting an ambitious and innovative plan for the Heartland Transport system in the future.
- 1.7. In addition, the EEH Business Unit continues to work closely with MHCLG to ensure that the investment made in developing the Transport Strategy, including the regional evidence base, is available to shape and inform the work being taken forward by the Government in respect of the Oxford – Cambridge Arc Spatial Framework.

Naomi Green
Head of Technical Programme

May 2021

Annex 1 – 2021/22 Work Programme

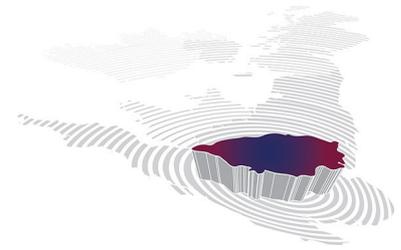
Based on the investment from Government, local contributions (to primarily cover staffing to support commissioning and management of the programme) and the tail-end of programmes commissioned in 2020/21, EEH Business Unit has proposed the following programme of activity to DfT.

Priority 1 - Supporting the Heartland Region, including the Arc Spatial Framework	
Theme	Activity
Regional Evidence Base and Monitoring	<p>Maintaining and updating the Regional Evidence Base – including maintenance/access to regional tools required to support programme of connectivity studies; and to ensure that information and tools are available to support work on the Arc Spatial Framework.</p> <p>Monitoring of published Transport Strategy to be undertaken and reported on an annual basis.</p> <p>NOTE: all of the information and tools held by EEH are made available to EEH partners, Government and its agencies and, where appropriate, other organisations.</p>
Prioritising Infrastructure Investments	<p>Programme of Connectivity Studies identified in the published Transport Strategy as the means by which EEH will work with local partners to identify and prioritise future infrastructure requirements in support of economic and housing growth while achieving net zero.</p> <p>2021/22 – will see completion of 2 studies commissioned at end of 2020/21:</p> <ul style="list-style-type: none"> • Oxford – Milton Keynes • Oxford – Northampton - Peterborough <p>[Note – costs of these studies are a commitment carried forward from 2020/21]</p> <p>In addition, a 3rd study will be commissioned using funds from 2021/22:</p> <ul style="list-style-type: none"> • Swindon – Didcot - Oxford <p>To accommodate pressures on the programme and funding, further connectivity studies will commence as soon as funds and resources allow. Notable is the need to commence scoping on the next study in sequence: London-Buckinghamshire – MK-Northampton. This work will now take place later in the year</p>

Priority 2 – Decarbonisation of the Transport System (a key driver of the published Transport Strategy)	
Decarbonisation Road Map	<p>Work will build on outputs from the Pathways to Decarbonisation commission completed by Universities of Oxford/Southampton that formed part of the evidence base for the Transport Strategy. Our focus will be to develop and publish a detailed road map against which progress towards decarbonisation can be monitored.</p> <p>Work will take into account the content of the Government’s Transport Decarbonisation Plan</p>
Alternative Fuels	<p>This will deliver a baseline mapping of current infrastructure provision in support of alternative fuels – including electric and hydrogen.</p> <p>It will use the output from work on decarbonisation to identify pathways to accelerating the delivery of necessary infrastructure to support decarbonisation of the transport system.</p> <p>NOTE: we will work with the Utilities Alliance to identify measures require to enable delivery of the pathways</p>

Priority 3 – Improving Strategic Connectivity in support of planned growth	
Future Rail (Passenger) Service Requirements	<p>Building on the outputs from Phases 1 and 2 of the EEH Rail Passenger Study (undertaken by Network Rail as part of its strategic planning function) we will develop Conditional Output Statements that can be used to inform the future requirements for passenger rail services as they become Direct Awards and/or Concessions.</p>
Future Roads Requirements	<p>Preparation and support for the prioritisation of future roads investment – to inform EEH’s input into RIS3, future MRN investment as well as other investment priorities (e.g. the levelling-up fund).</p> <p>Priorities will be set within the framework provided by the published Transport Strategy, and will be identified through use of the Regional Evidence Base and supporting tools – in keeping with approach used in first MRN submission.</p>

Priority 4 – Improving Local Connectivity	
Express Coach and Scheduled Bus Services	<p>The published Transport Strategy has identified the need to work with the EEH Bus Operators Association to define a long-term future for mass transit in the region.</p> <p>Work will be taken forward in the context of the National Bus Strategy, as well as building upon rural bus pilot projects taking place within the Heartland.</p>
Improving First Mile/Last Mile Connectivity	<p>First two pilots commissioned in 2020/21 – Marston Vale and Aylesbury – will be completed in early 2021/22: these will identify improvements in local connectivity that are required to realise the full potential of the strategic investment in East West Rail.</p> <p>Two further pilots to be commissioned (in collaboration with local partners) – the focus of these pilots will be how to improve local connectivity in rural and semi-rural communities: taking forward the concept of ‘mobility hubs’ as identified in the published Transport Strategy.</p>



Strategic Transport Forum

14th May 2021

Agenda Item 9: Business Unit Update

Recommendation:

It is recommended that the meeting notes the updates

1. Connectivity Studies

- 1.1. A core part of the EEH work programme moving forward is the programme of Connectivity Studies, as set out in the Transport Strategy.
- 1.2. A procurement exercise for the first two (year 1) studies has now concluded with Steer being appointed. Steer led a partnership bid with WSP, DMS Consulting and 5th Studio and together, these organisations are now commencing work.
- 1.3. Provision was also built into the procurement exercise that further studies could be delivered by the successful bidders, providing EEH was satisfied with their performance during the Year 1 studies. This additional provision ensures, should we wish to proceed with the same suppliers, a quick and efficient process for commissioning future studies.
- 1.4. The first steering group meetings for each of the Year 1 studies, 'Oxford – Milton Keynes' and 'Peterborough – Northampton- Oxford' took place earlier this month.
- 1.5. Given the slightly later than anticipated start to the first two studies, and the level of funding available for 2021/22, the timing of subsequent connectivity studies has been amended (Annex 1 sets out the sequenced programme of Connectivity Studies).
- 1.6. Scoping work for the Swindon – Didcot - Oxford study (Year 2) has commenced with work on the study to commence in autumn 2021.
- 1.7. Work on further studies in the sequenced Programme will follow as resource-time and funding allows.

2. Decarbonisation: 2035 Legal Target

- 2.1. The UK is to set a legal target to cut emissions by 78% against 1990 levels by 2035. This is a truly transformational goal which positions the UK as a global leader in decarbonisation. It points to a significant amount of new climate change policy. Low carbon investment, transport, mobility and connectivity will play a major role in the delivery of this target.
- 2.2. LTAs and STBs should expect a significant shift in the approach of government to physical and digital connectivity. This new target points to a world in which electric vehicles are dominant, power is decarbonised, and industry and manufacturing processes are completely rethought.
- 2.3. The EEH Transport Strategy is well placed to respond to these challenges and support this step change in approach to delivery

3. Transport Decarbonisation Plan

- 3.1. Forum Members will be aware that the Government's Transport Decarbonisation Plan (TDP) is yet to be published. EEH Business Unit understands this is expected in May 2021.
- 3.2. The EEH Business Unit expects the TDP to be positively received within the region. As an STB, we have led the English STB's input into the TDP. As a result of our engagement, we expect the final TDP to make reference to the important role of place-based planning in helping to achieve transport decarbonisation.
- 3.3. Whilst we may not expect to see regional carbon targets or budgets within the TDP, it is likely that the document will include a UK-wide trajectory for the reduction of Greenhouse gas emissions from transport in the UK. The trajectory will need to be in line with the advice of the Committee on Climate Change in respect of a new Nationally Determined Contribution ambition (see above).
- 3.4. England's Economic Heartland is well placed to respond to the TDP when it is published. The EEH Business Unit will shortly commence work to develop the decarbonisation roadmap identified in the published regional Transport Strategy. Through this, EEH Business Unit will synthesise the expected TDP trajectory along with the Committee on Climate Change pathways, creating a regionally relevant trajectory for EEH and constituent partners to work from and plan for.
- 3.5. Following publication of the TDP, EEH Business Unit will undertake a substantive review of the TDP and its implications. The Strategic Transport Forum will be presented with the conclusions of the review and options for further action at its meeting in July.

4. Work from Home - Network Capacity Release Project

- 4.1. At the height of the COVID-19 lockdown, more than 50% of the UK's workforce was able to work from home, a reflection of an acceleration of the trend towards flexible/hybrid working. More recently, surveys and announcements from a number of businesses indicate that a hybrid approach to work patterns will be the norm moving forward.
- 4.2. EEH Business Unit has commissioned City Science to understand the impact of these emerging patterns on the highway network. They have developed a model that can be used to explore different future scenarios of the impact of residents working from home.
- 4.3. Emerging findings suggest that if people who used to commute by car and who are now working from home were to continue to do so for two days per week, between 10% to 12% of peak hour traffic would be removed. This is consistent with independent findings from the University of Leeds who estimate that this level of home working would reduce morning car trips by 14%.
- 4.4. This level of working from home has the potential to have significant impacts on the road network. The work shows spatially how the nature of the impact differ across the Heartlands in response to differences in the make-up of resident demographics, the sector-mix in the economy, and the speed-flow characteristics of specific roads.
- 4.5. City Science are currently validating the outputs of the study. EEH Business Unit will present the final conclusions of the work to the Strategic Transport Forum in July 2021.

5. Government EV Infrastructure Strategy

- 5.1. EEH Business Unit has had a number of discussions with the Office for Zero Emission Vehicles (OZEV - formally OLEV).
- 5.2. OZEV is committed to the spending announced for infrastructure and consumer incentives to support the EV ambitions for 2030 and 2035, including:
 - £950 million to support the rollout of rapid electric vehicle (EV) charging hubs at every service station on England's motorways and major A-roads, so that motorists can charge their car on long journeys in the time it takes to have a cup of coffee
 - £582 million for the Plug-in Car, Van, Taxi, and Motorcycle Grant until 2022-23, reducing the sticker price of zero and ultra-low emission vehicles for the consumer

- £275 million to extend support for charge point installation at homes, workplaces and on-street locations, while reforming these schemes so that they target difficult parts of the market such as leaseholders and small and medium-sized enterprises (SMEs)
 - £90 million to fund local EV charging infrastructure to support the roll out of larger on-street charging schemes and rapid hubs in England.
- 5.3. To support the above OZEV are aiming to produce an Electric Vehicle Infrastructure Strategy in summer 2021 which will set out a national vision for EV infrastructure and rollout, focusing on cars and vans.
- 5.4. The strategy is likely to outline that government has a role in regulation, finances and objectives, whereas specific infrastructure needs vary significantly across areas (demographics, travel needs, existing infrastructure, energy network).
- 5.5. There is a recognition that there is a role for local and regional leadership on identifying the specific needs of areas. The strategy will outline the actions and responsibilities for different stakeholders (local and regional, energy companies etc) and provide some clarity on expectations – tangible next steps and responsibilities.

6. EEH Annual Conference

- 6.1. EEH's Annual Conference is taking place in-person at Silverstone on 20th October.
- 6.2. Forum members and political leaders should have received a 'save the date' request, with a formal invite/registration to follow shortly.
- 6.3. The conference programme is in development but is likely to include updates on EEH work-streams and major infrastructure projects, a spotlight on economic opportunities from decarbonisation, and showcase for schemes being developed by local partners, including a discussion of funding requirements.
- 6.4. An external 'innovation zone' where emerging approaches to mobility can be showcased and experienced hands-on is also being planned.
- 6.5. As part of the planning for the conference measures are being put in place to ensure there are sustainable options for accessing the event. To this end we are planning to provide a shuttle from Milton Keynes Station to/from Silverstone and exploring a number of other options, including carbon off-setting and live streaming.

7. Oxfordshire Local Transport and Connectivity Plan (LTCP)

- 7.1. The Local Transport and Connectivity Plan (LTCP) is Oxfordshire County Council's long-term countywide transport strategy. The plan takes into account its strategy for digital infrastructure and for connectivity across the county.
- 7.2. In February 2021 Oxfordshire consulted on its vision for the LTCP, which sets the direction for transport in Oxfordshire and outlines a clear long-term ambition for transport to 2050.
- 7.3. EEH's response to the consultation was agreed by the Chair of the Forum and is set out in Annex 2 (attached). EEH particularly welcomed the strong alignment between the vision and aims set out in the LTCP and those of the wider EEH regional transport strategy.

Naomi Green
Head of Technical Programme

May 2021

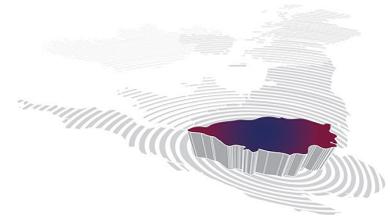
Annex 1 – Programme of Connectivity Studies

The sequenced programme of connectivity studies is shown in the table below. It should be noted that EEH currently receives a single year settlement from the Department for Transport, therefore the programme is dependent on receiving DfT funding year of year in order to undertake future year studies.

Study	Programme year (anticipated start date*)	Comments
Oxford – Milton Keynes	2020/21	<p>This geography was originally presented as 2 studies to the Strategic Transport Forum. The geography now consists of one study covering the Oxford – Milton Keynes area.</p> <p>There is a requirement to take this work forward as a priority in order to have clarity on how to improve connectivity in this part of the region</p>
Peterborough – Northampton - Oxford	2020/21	Commissioned in parallel with Oxford to Milton Keynes
Swindon – Didcot - Oxford	2021/22 – Q1	Study scope is in development. Work will be commissioned to start later in 2021/22
London – Bucks – Milton Keynes - Northampton	Timing likely to shift slightly – scoping to take place during 2021/22 but delivery will be subject to funding and resources becoming available.	Originally a Year 1 study, this will now follow on from the Oxford – Milton Keynes work.
Watford – Aylesbury – Bicester – M40 junctions	Scoping to take place during Q4 of 2021/22 but delivery will be subject to funding and resources becoming available	
Luton – Milton Keynes - Daventry	Planned for 2022/23 onwards, subject to funding and resources	Originally a Year 2 study, this is now proposed for slightly later in the programme. Highways England’s study work (planned to inform RIS3) will need to be factored into the timing of this study
North Northamptonshire	Planned for 2022/23 onwards, subject to funding and resources	

Oxford – M40 junctions	Planned for 2022/23 onwards, subject to funding and resources	Alignment with Highways England’s study work on the A34 will need to be factored into the study scope
Luton- Bedford – Northamptonshire	Planned for 2022/23 onwards, subject to funding and resources	
Northampton – Milton Keynes	Planned for 2022/23 onwards, subject to funding and resources	

*Note this is the proposed commissioning year, it is not anticipated that the studies will be complete within the same financial year.



Response submitted via online portal

EEH Business Unit
c/o Buckinghamshire Council
Walton Street
Aylesbury
HP20 1UA

29th March 2021

Dear Sir/Madam

Local Transport and Connectivity Plan: Vision

England's Economic Heartland (EEH) is the Sub-national Transport Body (STB) for the region covering Swindon and Oxfordshire through to Cambridgeshire, and Northamptonshire down to Hertfordshire. Our region includes the Oxford – Cambridge Arc, a national priority for Government.

As the STB, EEH works with partners across the Heartland to both: provide strategic leadership on issues that extend beyond local authority boundaries; and support and align with individual local authorities' priorities. In that context, we welcome the opportunity to comment on the consultation for Oxfordshire's Local Transport and Connectivity Plan (LTCP) vision.

As the Sub-national Transport Body, EEH is responsible for setting the strategic vision for the region's transport system. In February 2021, our Transport Strategy, *Connecting People, Transforming Journeys*, was published.

The Transport Strategy sets a bold framework for ensuring our transport system achieves the requirement for net zero carbon in a way that delivers economic and inclusive growth within the region. Included in this is a 'five-point plan' for connectivity in the Heartland:

- Focus on decarbonising our transport system by harnessing innovation and supporting solutions which in themselves create green economic opportunities
- Promote investment in digital infrastructure as a means of improving connectivity
- Use the delivery of strategic public transport schemes – such as East West Rail, the Cambridgeshire Autonomous Metro and Milton Keynes Mass Rapid Transit – as the catalyst for a shift towards lower carbon modes of travel
- Champion increased investment in active travel and shared transport to improve local connectivity to ensure that everyone can realise their potential
- Continue to ensure the needs of the freight and logistics sector are met whilst lowering its environmental impact

It is in this context that EEH welcomes and supports the vision for the LTCP; we particularly note and welcome the way the vision has been developed to closely align with the EEH Transport Strategy.

Context

The transport challenges and opportunities identified in the LTCP vision document align with the regional picture, set out in our Transport Strategy.

Transport emissions are the biggest contributor of greenhouse gases in the Heartland region, equating to 47% of the Heartland's total carbon dioxide emissions, compared with 37% nationally. The scale of planned growth in the region, if delivered in a similar way to that previously allowed, will further exacerbate the scale of our decarbonisation challenge. By extension, this would increase still further the need for a step-change in approach, not just in terms of the transport system but more generally. We therefore support the assertion that 'more radical solutions are needed to transform transport in Oxfordshire'.

Reference in the document to the importance of addressing private car use is also supported. The EEH Transport Strategy includes a policy to prioritise future investment which contributes to a reduction in car journeys by a minimum of 5% per decade (of total traffic flow compared with 2019).

With 34% of the Heartland's population living in small market towns and their hinterlands, connectivity for our rural communities is a strategic issue. In rural areas, a frequent and conventional bus service is becoming increasingly difficult to provide. However, the wider social and economic benefits of local and regional bus services make it essential that we continue to work with Government, local partners and the EEH Bus Operators Association to create an accessible and future-ready bus network across the region. Innovation and digital solutions have a key role to play in rural transport provision in the future.

Investment in digital connectivity enables businesses to operate more efficiently and provide opportunities to conduct business remotely, thereby reducing the need for travel. In addition, digital connectivity offers the potential for innovative solutions to be developed where there remains a need to travel. It is for this reason that EEH considers physical and digital connectivity to be so interdependent.

Equally, and as recognised by the draft LTCP vision, freight and logistics are critical parts of the region's economy. The EEH Transport Strategy looks to support the sector while reducing its environmental impact. Modal shift from road to rail is a core ambition of the strategy and we welcome Oxfordshire's LTCP acknowledgment of the challenge.

Engagement – key points

Feedback from engagement activity relating to the Oxfordshire LTCP broadly aligns with the consultation responses to EEH's draft Transport Strategy, the analysis of which identified six key issues:

- Decarbonisation and the environment
- Alignment with wider geographies/ initiatives
- Reflecting levers for change
- Consideration of the balance of modes/ schemes



- People and safety
- Rural connectivity

An over-riding message from the consultation was the requirement for EEH to be ambitious with regards to addressing the causes of climate change. As a result, the EEH Transport Strategy includes an ambition for the transport system to achieve net zero by 2040, 10 years ahead of the legal requirement.

Vision

We strongly support the LTCP vision, which aligns with the ambition set out in the EEH Transport Strategy:

“To support sustainable growth and improve quality of life and wellbeing through a world-class, decarbonised transport system which harnesses the region’s global expertise in technology and innovation to unlock new opportunities for residents and businesses, in a way that benefits the UK as a whole.”

In particular, we welcome reference to achieving net zero and reducing the need to travel, including through securing high-quality digital connectivity and making active travel, public and shared transport the natural first choice.

Policy areas

The policy areas set out as key priorities in shaping the LTCP vision are supported and align with the EEH Transport Strategy.

EEH has the following additional comments:

Decarbonisation: The LTCP vision may benefit from having a clearer area of focus around decarbonisation, which, while sharing similarities with wider environmental issues, is distinct from it. In addition, it would be helpful for there to be explicit reference to achieving a net zero transport system ahead of the 2050 legal requirement (the EEH Transport Strategy has an ambition to achieve this by 2040).

Innovation: EEH’s ambition is for the region to become a living laboratory for the trialling and successful roll-out of clean and smart mobility. This builds on the successes that Oxfordshire is already experiencing, for example, Oxbotica is one of the world’s leading autonomous driving software companies; RACE at Culham is at the forefront of Connected Autonomous Vehicle testing; and Arrival in Banbury has developed smart electric vehicles for the logistics sector. In developing the key factors that will contribute towards Oxfordshire’s success in its future LTCP, innovation should continue to play a key role.

Regional connectivity: We support regional connectivity being a distinct policy focus area within the LTCP. Improving wider connectivity beyond Oxfordshire’s boundaries creates opportunities for the county’s people and businesses. In this regard, the transformational impact of the East West Main Line will extend beyond the Oxford-Cambridge Arc: in particular consideration should be given to improving connectivity to the west given the economic linkages with Swindon, as well as the benefit of improved connectivity along the North Cotswold Line.

EEH will work with Oxfordshire County Council and other partners on the first two of its connectivity studies which begin in April 2021 – Oxford-Milton Keynes; and Oxford-



Northampton-Peterborough. Our third study, Oxford-Didcot-Swindon, will also begin this calendar year. These will identify the most appropriate infrastructure solutions required to support the delivery of planned growth in these areas, consistent with the vision and principles of the EEH strategy and the priorities of our partners.

Beyond Oxfordshire and the Heartland region, EEH also maintains strong working relationships with the Sub-national Transport Bodies which border Oxfordshire: Western Gateway, Midlands Connect and Transport for the South East. Given Oxfordshire's geographical location it is essential to take into consideration the importance of Oxfordshire's infrastructure in support of the wider UK economy.

England's Economic Heartland looks forward to continuing to work with Oxfordshire County Council as it develops and then delivers the LTCP for Oxfordshire.

Yours sincerely



Mayor Dave Hodgson
Chair, EEH Strategic Transport Forum