

**ENGLAND'S
ECONOMIC
HEARTLAND**

EAST WEST RAIL AND MOBILITY HUBS

Economic and Social Council, Economic
Commission for Europe, Inland Transport
Committee, Working Party on Rail Transport,
Passenger Hubs, Fifth session

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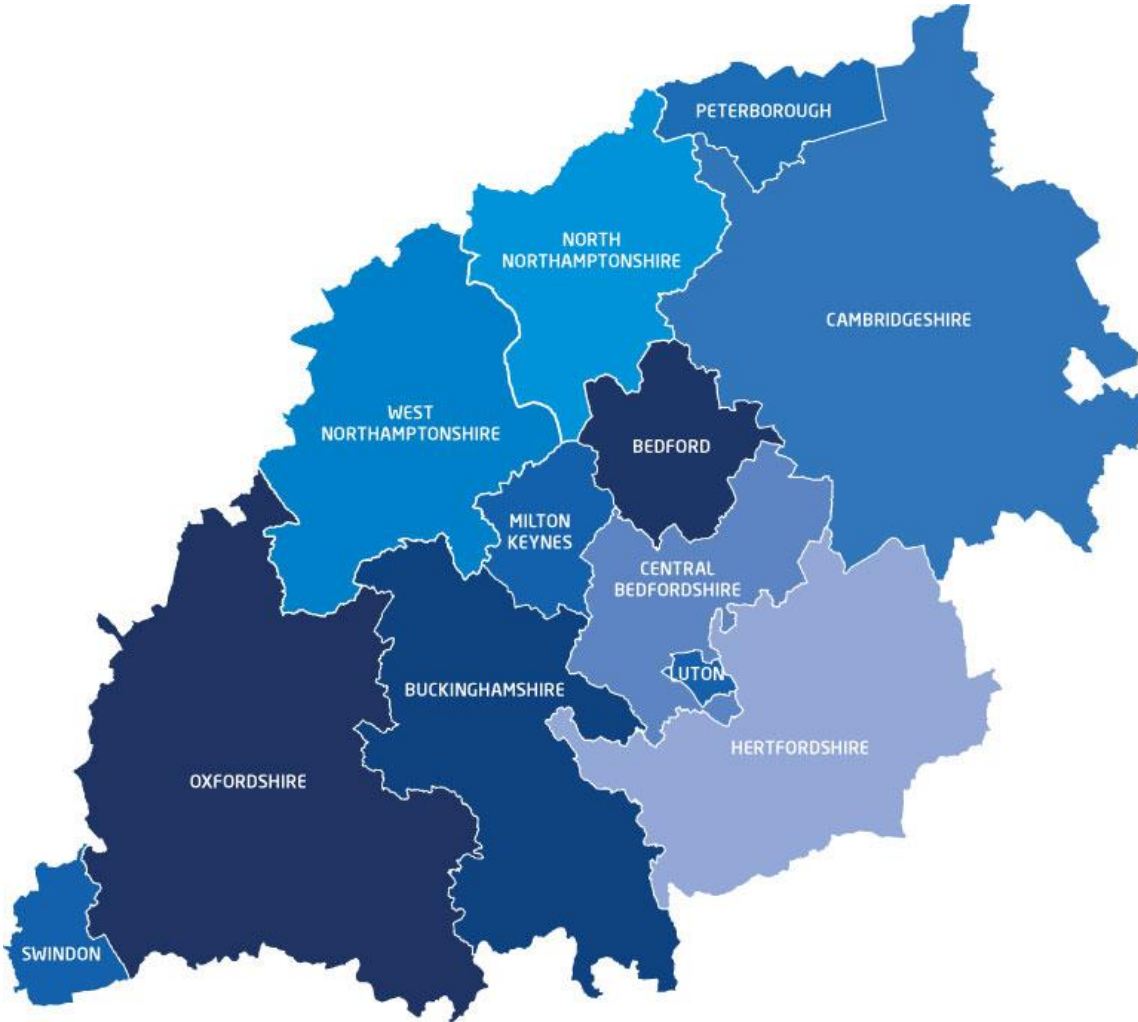
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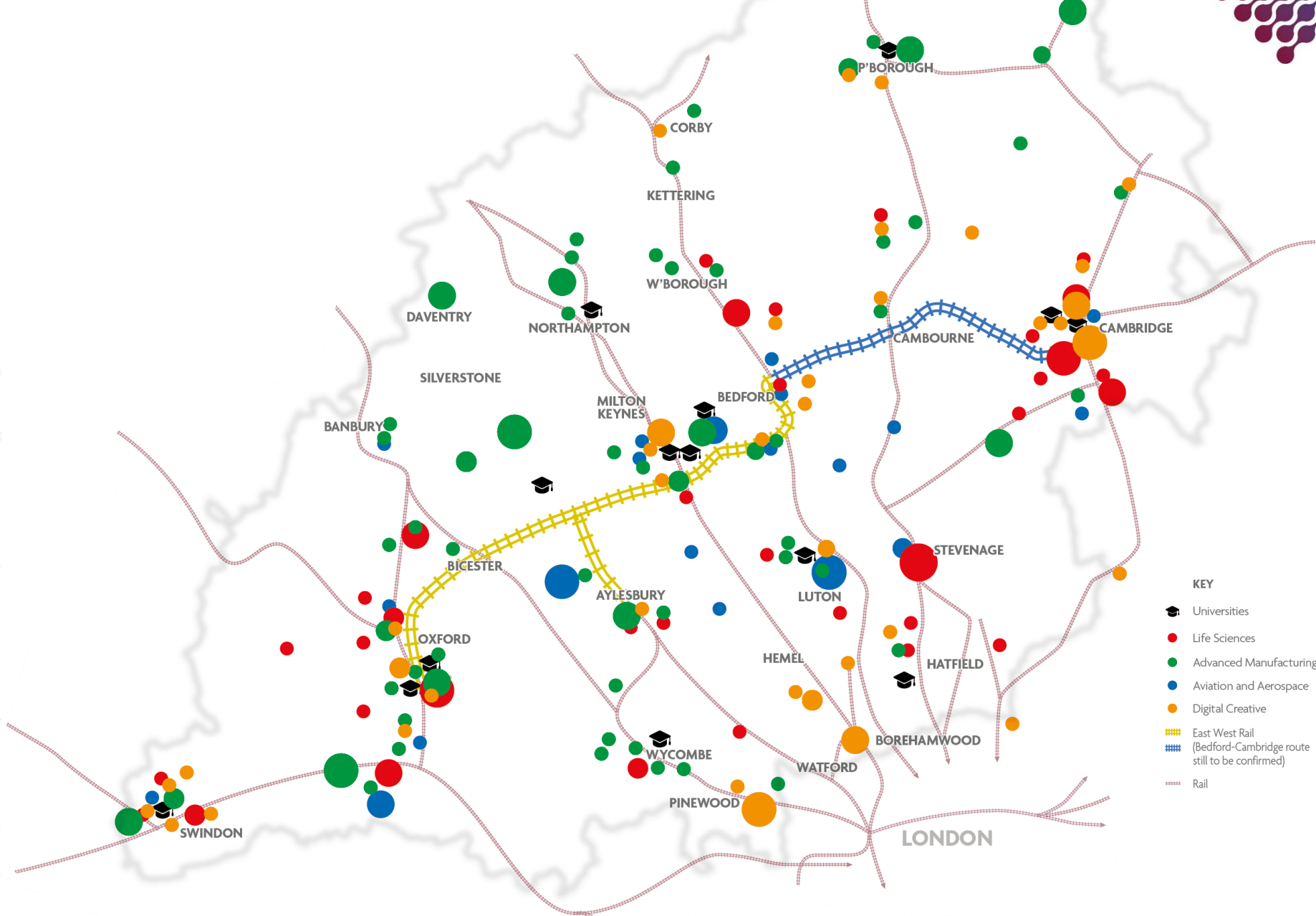
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SUB-NATIONAL TRANSPORT BODIES



EAST WEST RAIL



- KEY**
- Universities
 - Life Sciences
 - Advanced Manufacturing
 - Aviation and Aerospace
 - Digital Creative
 - East West Rail
 - Bedford-Cambridge route still to be confirmed
 - Rail



EAST WEST MAIN LINE



Mobility Hubs Business Case Guidance

England's Economic Heartland



Case study 1: Rural Village

This mobility hub is located in the centre of a rural village, with the site on the main road running through the settlement. The village is served by a low-frequency, inter-urban bus service running between rural towns and a major conurbation.

The rural village is largely residential, with approximately 1,500 residents and a variety of property types. A small number of local services exist within the village, such as a small convenience shop with a post office, a primary school, a pub that serves food, a church and a village hall. However, residents must travel into the nearest town to access additional services such as healthcare, larger retail or other services.

Beyond the village, land use is very typically rural, the vast majority being composed of agricultural land alongside a sparse number of rural businesses such as B&B hotels (or other hospitality activities) and forestry sites. This area is very sparsely populated, with only a small number of rural hamlets or isolated dwellings, for which the village serves as the closest hub for public transport, as well as local services such as the village shop/post office and primary school.

Case study 2: Rural station

This mobility hub is focused on a railway station located the edge of a small rural market town centre. The rail service is half-hourly between two larger regional towns and serves other small market towns and villages. The railway station is adjacent to a bus stop that is served by an hourly bus service (not aligned to the rail timetable), covering a fraction of the train station's catchment, with services that are not timed to complement rail services.

The town centre has a small commercial core, with a town square, hosting amenities such as food stores, GP and pharmacy, hairdresser, local restaurants and coffee shops. The remainder of the town area is mostly residential, housing the town's 9,000 residents in a variety of properties including flats, town houses, terraces and detached properties. Away from the town centre, there is some employment in services and small business units on the edge of town.

Land area beyond the town boundary is relatively rural, comprising a mix of rural villages, hamlets and isolated dwellings, and open agricultural land. The town serves as the local centre for much of the adjacent rural community to access amenities, employment, and for children to access school.

Case study 3: Peri-urban

This mobility hub is part of a wider network of hubs located in a predominantly residential suburban area. The site is well served by several bus services providing good access to the town centre.

The residential area is a mixture of older terraced houses, post war semi-detached housing, and new developments with mixed provision including flats, townhouses and many detached houses.

This site has been designed to work as part of network of mobility hubs with uniform components across all sites. The locations have been strategically selected to include a range of sites including local centres, schools, colleges and business parks to maximise coverage and make best use of the existing bus network.

Given that no mobility hub is likely to be used in isolation, consideration will need to be given in the guidance to the programme-level benefits of the network of hubs, including how multiple sites used together can generate benefits greater than the sum of their parts.

Role of the business case

A business case should set out the necessary information to enable the appropriate decision-makers to make an informed decision. For this, the business case should set out the reasons for changing the current situation and the implications of doing so.

Given the decision to implement a mobility hub, or network of them, will impact a range of people and most likely require public funding support, the business case needs to demonstrate that the proposed intervention:

- is consistent with relevant strategies and policies
- will be effective and efficient
- will achieve 'Value for Money'
- is viable, affordable and deliverable
- has been developed through a proper process
- meets local context and stakeholder needs

Business case stages

Reflecting the lifecycle of a project, and enabling good governance through timely gateway points, there are three stages set out in the [HM Treasury's Project Business Case Guidance](#)¹⁰, as illustrated in the diagram below.

- Strategic Outline Case (SOC)
- Outline Business Case (OBC)
- Full Business Case (FBC)

The SOC establishes the potential scope of the transport proposal, including the need for intervention, how the investment will further the organisation's priorities and government ambitions, determines the objectives, and sets out the 'preferred way forward'.

The OBC checks and builds on the conclusions made at SOC stage. Detailed economic and financial appraisals will be undertaken, and a preferred option selected, including the proposed approach for delivery.

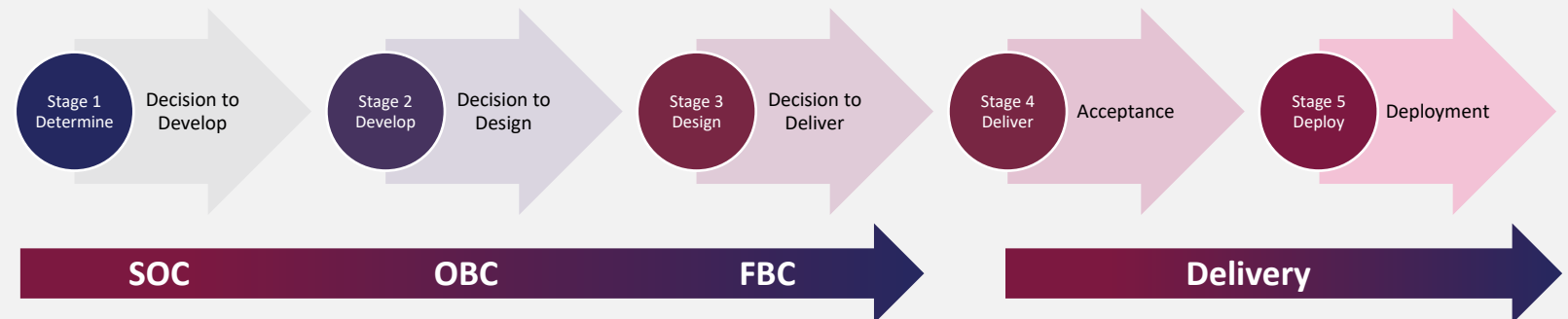
The FBC confirms the conclusions made in the OBC based on the procurement process.

Business case dimensions

The '5-Case Model' as presented by HM Treasury comprises five dimensions, each addressed in their respective cases. They are:

- Strategic case
- Economic case
- Commercial case
- Financial case
- Management case

This document focuses on the approaches to be taken for the strategic, economic, and financial cases, as CoMoUK guidance should be used to inform the commercial and management cases.



Challenges of the business case approach

While the business case approach provides a framework for considering all investment decisions, there are challenges in applying it to mobility hubs compared to more established transport projects. These particularly relate to the quantification of non-financial impacts and the estimation of the benefit to cost ratio (BCR) and associated Value for Money of a scheme. Furthermore, it is likely that all, or a significant majority of funding will have to be provided by public bodies, creating a challenge of drawing together a funding package from multiple funders and leveraging private sector contributions. This guidance will address the following challenges:

Where mobility hubs are in rural areas, lower population density will limit the scale of likely benefits and decongestion opportunities compared to those in more urban areas.

Less established methods exist for the quantification of benefits likely to be associated with the introduction of mobility hubs, e.g., service reliability, new trip opportunities and trip chaining benefits.



Conventionally, the greatest contributor to monetised benefits is journey time savings, which are unlikely to represent the core benefits for most mobility hubs.



Challenges

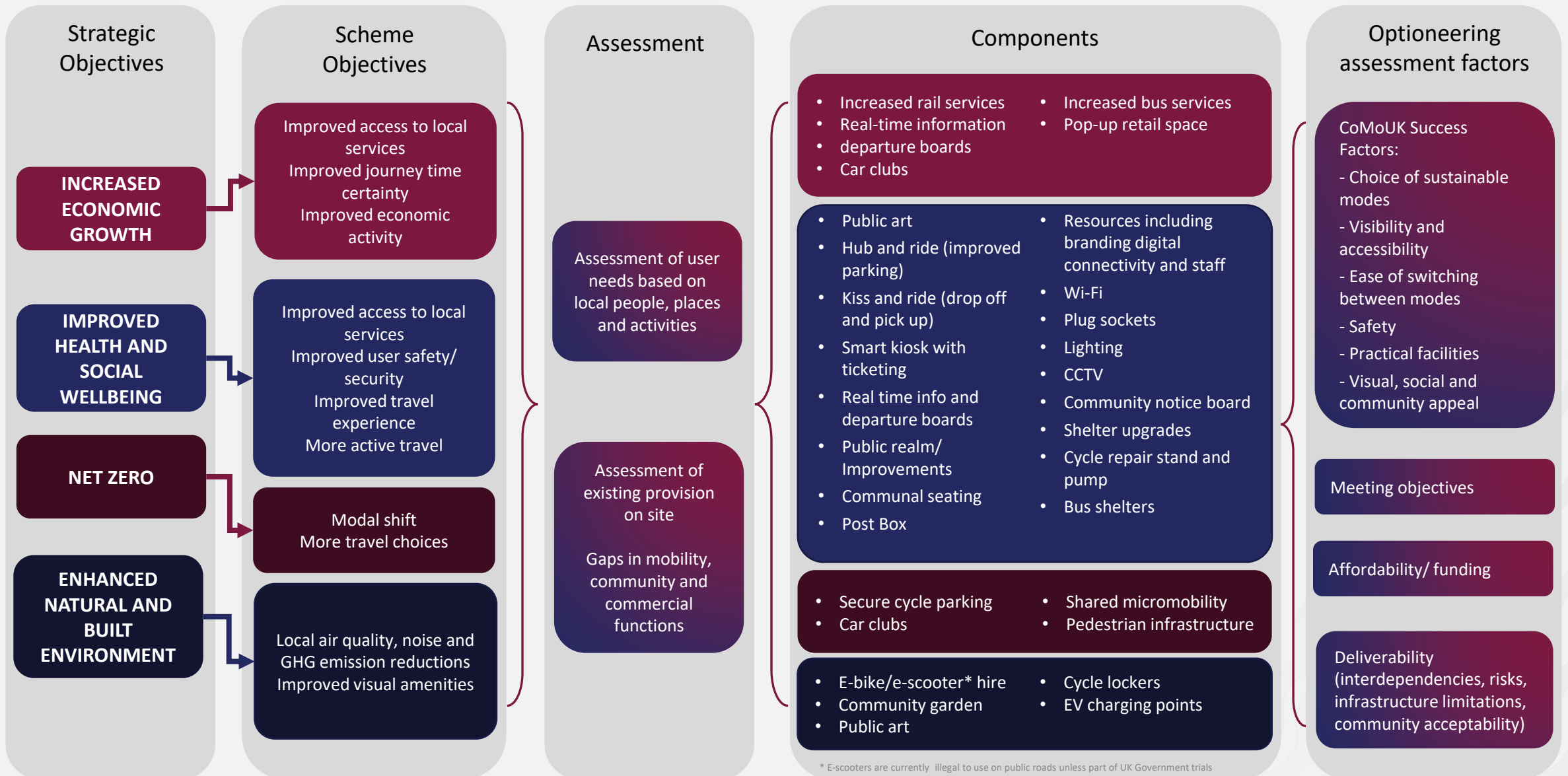


There is growing, but limited evidence of the value placed by users on the experiential benefits that mobility hubs can provide, e.g., trip certainty, user experience, travel behaviour change.



Consideration of the cumulative effect of bringing together multiple components that reinforce behaviour and user take-up, both at a single site and with a network of mobility hubs.

Optioneering diagram



* E-scooters are currently illegal to use on public roads unless part of UK Government trials

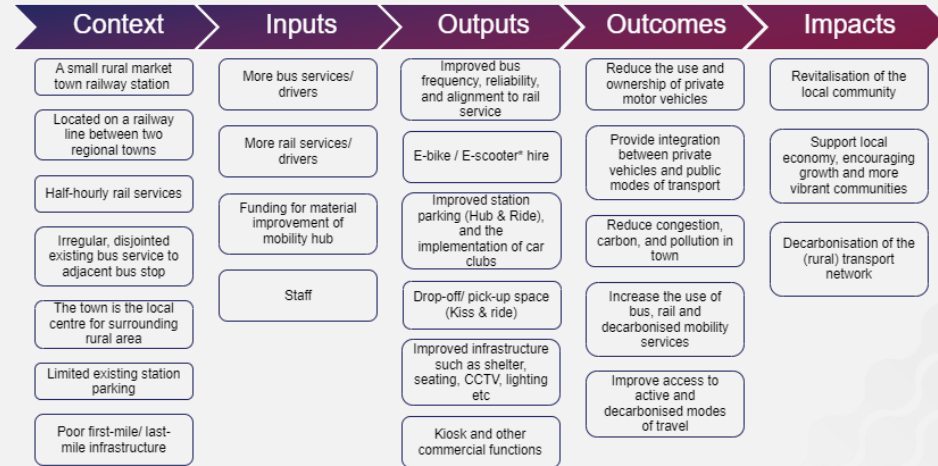
Quantified impacts

Table 1 – Quantitative appraisal techniques

Impact	Potentially resulting from...	Appraisal technique
Travel time savings	Reduction in interchange time due to Integration of mobility services	Valuation of user travel time changes (TAG UNIT A1.3)
	Decongestion due to reduction in traffic due to trips shifting to shared modes, cycles, etc. or reduction in trip chaining	Valuation of Marginal External Cost (TAG UNIT A5.4)
Noise	Reduction in internal combustion engine (ICE) car mileage due to trips shifting to electric vehicles, shared modes, cycles etc. or fewer trips or trips not being made due to provision of facilities at mobility hub	Valuation of Marginal External Cost (TAG UNIT A5.4)
Local air quality	Reduction in ICE car mileage due to trips shifting to electric vehicles, shared modes, cycles etc. or fewer trips or trips not being made due to provision of facilities at mobility hub	Valuation of Marginal External Cost (TAG UNIT A5.4)
Greenhouse gases	Reduction in ICE car mileage due to trips shifting to electric vehicles, shared modes, cycles etc. or fewer trips or trips not being made due to provision of facilities at mobility hub	Valuation of Marginal External Cost (TAG UNIT A5.4)
Physical activity	Increase in cycling and walking activity	Reduction in risk of premature death and reduced absenteeism (TAG UNIT A5.1)
Journey quality	Enhancements to the experience of travelling due to infrastructure and service provision and improvements	Valuation of journey quality impacts (TAG UNIT A5.1)
Accidents	Reduction in highway traffic due to trips shifting to shared modes, cycles, etc. or reduction in trip chaining	Valuation of Marginal External Cost (TAG UNIT A5.4)
Infrastructure maintenance	Reduction in wear and tear on highway due to reduction in highway traffic due to trips shifting to shared modes, cycles, etc. or reduction in trip chaining	Valuation of Marginal External Cost (TAG UNIT A5.4)
Vehicle operating costs	Reduction in ICE car mileage due to trips shifting to electric vehicles, shared modes, cycles etc. or fewer trips or trips not being made due to provision of facilities at mobility hub	Valuation of fuel and non-fuel costs (TAG UNIT A1.3)
Indirect tax	Reduction in fuel duty resulting from reduction in ICE car mileage due to trips shifting to electric vehicles, shared modes, cycles etc. or fewer trips or trips not being made due to provision of facilities at mobility hub	Valuation of indirect tax impact (TAG UNIT A5.4/ UNIT A5.1)
	Increased expenditure on public transport fares resulting from more attractive interchange	
Revenue	New and increased use of mobility and wider services provided by the mobility hub, e.g. revenue generated by e-bike hire, rental income from parcel lockers etc.	Estimation of revenue streams (see page 26)
Employment	Introduction of mobility and wider services at mobility hub (direct and indirect job creation and/or increased job security), e.g. coffee shack, cycle repair etc.	Estimation of number of jobs created and/or jobs gaining greater job security
		Valuation of Gross Value Added (GVA) of employment
Operating costs	Introduction of mobility and wider services at mobility hub	Estimation of operating costs (TAG UNIT A1.2)
Capital costs	Introduction of mobility and wider services at mobility hub	Estimation of capital costs (TAG UNIT A1.2)

Appendixes

2) A rural railway station that is currently served by an intermittent bus service



Logic Mapping

Strategic Dimension	Small (e.g. a rural village close to a minor A-road with regular bus service)	Large (e.g. rural railway station on the edge of a town)	Network (e.g. network of hubs in a peri-urban location that is well served by bus)
STRATEGIC OUTLINE CASE	<p>The case for change should be established through setting out the rationale for the scheme based on demonstrating its need and strategic fit. Aligned with these, the scheme objectives should be developed. This should be undertaken through the logic mapping process.</p> <p>For a small scheme the strategic case should present the logic mapping (e.g. Appendix A1) and a concise summary of the approach and key findings of the process.</p> <p>It is anticipated that several mobility hub options should be identified to address the scheme objectives (e.g. different combinations of components and/or higher and lower cost options).</p>	<p>For a large scheme the case for change should reflect the DfT's business case guidance in a proportional manner reflecting the nature and scale of the proposals, with logic mapping demonstrating the alignment of strategic priorities, scheme objectives and the emerging options.</p> <p>A structured Options Selection process should be undertaken and reported to identify a short list of options from a long list, based on a Multi-Criteria Assessment Framework based upon the scheme's objectives and CoMoUK's Success Factors, along with affordability and deliverability.</p>	<p>For a network the case for change should reflect the DfT's business case guidance in a proportional manner reflecting the nature and scale of the proposals, with logic mapping demonstrating the alignment of strategic priorities, scheme objectives and the emerging options.</p> <p>A structured Options Selection process should be undertaken and reported to identify a short list of options from a long list, based on a Multi-Criteria Assessment Framework based upon the scheme's objectives and CoMoUK's Success Factors, along with affordability and deliverability.</p> <p>For a network this is likely to consider both options at mobility hubs and options for the location and number of hubs in the network.</p>
OUTLINE BUSINESS CASE	<p>The case for change established in the SOC should be reviewed to confirm it remains the case, with appropriate revisions to capture developments in context since the SOC. As part of this the logic mapping should be reviewed and revised as appropriate. Measures of success should be identified for the delivery of the scheme.</p> <p>Further option development work since the SOC should be documented.</p>		
FULL BUSINESS CASE	<p>Subject to governance requirements and agreement with funders it may not be necessary to produce a revised strategic case at FBC stage.</p> <p>If a revised strategic case is required, the OBC document should be reviewed and it should be ensured that all elements are up-to-date and a clear case for the delivery of the preferred option is described.</p>		

Summary of business case guidance

Case study 2: Rural railway station

A rural railway station that is currently served by an intermittent bus service	
Area and land use	<p>This mobility hub is focused on a railway station located on the edge of a small rural market town centre. The rail service is half-hourly between two larger regional towns and serves other small market towns and villages. The railway station is adjacent to a bus stop that is served by an hourly bus service (not aligned to the rail timetable), covering a fraction of the train station's catchment, with services that are not timed to complement rail services.</p> <p>The town centre has a small commercial core, with a town square, hosting amenities such as food stores, GP and pharmacy, hairdresser, local restaurants and coffee shops. The remainder of the town area is mostly residential, housing the town's 9,000 residents in a variety of properties including flats, town houses, terraces and detached properties. Away from the town centre, there is some employment in services and small business units on the edge of town.</p> <p>Land area beyond the town boundary is relatively rural, comprising a mix of rural villages, hamlets and isolated dwellings, and open agricultural land. The town serves as the local centre for much of the adjacent rural community to access amenities, employment, and for children to access school.</p>
Existing provision	<p>The station has a minimal level of existing hub components. Each platform is accessed from the road which passes over the railway line via a bridge. Both platforms have lighting, a small shelter, timetable information and live train information screens.</p> <p>There is a small, unsurfaced car park on one side of the railway line. There are bus stops either side of the road passing the station which have a pole, flag, timetable information and highway markings.</p>
Concept vision	<p>"To offer improved mobility services that increase access to and use of local railway services, in a way that revitalises the local community, in order to support stronger economies, more vibrant communities and a healthier natural environment."</p>
Objectives	<ul style="list-style-type: none"> To act as an interchange between local bus and rail services; To provide integration between private vehicles and publicly-available, shared and decarbonised modes; To improve access to active or decarbonised modes such as cycles/e-cycles/e-scooters*; To reduce the use and ownership of private motor vehicles, particularly for single-occupancy journeys while providing on-demand access to vehicles when use of other modes is not feasible; To increase use of bus, rail, and decarbonised mobility services; To reduce congestion in town; To reduce carbon, air and noise pollution emissions; To increase the quality of the local public realm, creating a more pleasant and attractive environment for the local community to live, work and play; To improve rural connectivity; To support strong rural communities and economies, with greater access to services, education, and opportunities To provide an inclusive, convenient, enjoyable, safe and high-quality experience for customers

Detailed mobility hub case studies

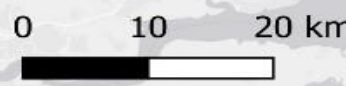
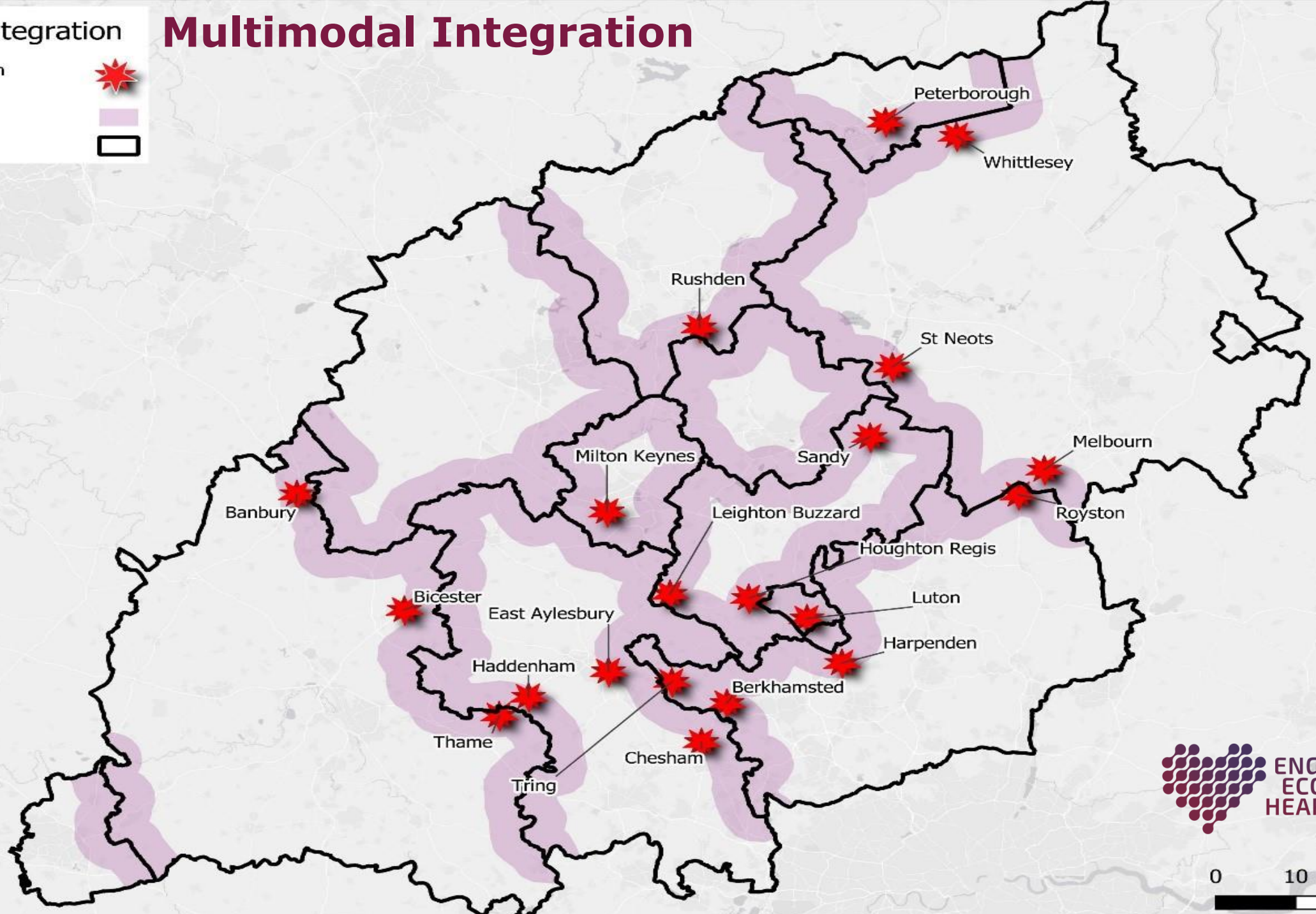
Next steps



Multimodal Integration

Multimodal Integration

- Potential Hub Location 
- 5-mile Buffer 
- Study Area 



Questions

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Many Thanks

