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Sheffield City Region Transforming Cities Fund Monitoring & Evaluation Plan

South Yorkshire Passenger Transport Executive
Sheffield City Region

December 2020

Quality Information

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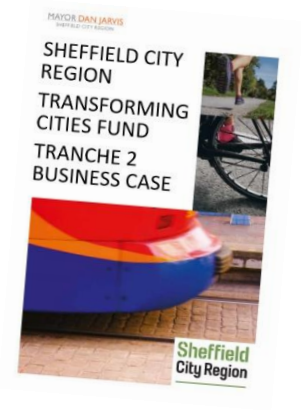
1. Introduction

1.1 Background



In November 2019, the Sheffield City Region (SCR) submitted a Strategic Outline Business Case (SOBC)[1] to Department for Transport (DfT) for Tranche 2 of the Transforming Cities Fund (TCF). The TCF aims to improve productivity and spread prosperity through investment in public and sustainable transport in some of the largest English city regions. In the Spring 2020 Budget, Government confirmed the SCR had been allocated £166m of the TCF, which would also be supplemented with local and private contributions.

It is a requirement of receiving funding to monitor and evaluate the interventions delivered. DfT will lead the overall evaluation of the TCF, but city regions are also expected to develop evaluation processes alongside scheme development. This Monitoring and Evaluation Plan (MEP) presents the indicative approach for the SCR TCF programme based on the current level of scheme design and understanding of the national evaluation[2]. It is a 'live' document that will be updated as the SCR TCF programme progresses, and the full requirements of the national / overall evaluation are understood. This will ensure the activity undertaken locally effectively complements the national evaluation and mitigates duplication. The Mayoral Combined Authority (MCA) will review, and where required, update the MEP to ensure it remains in accordance with other relevant plans and objectives.

The SCR Assurance Framework (2018) highlights the importance of measuring success as this provides "*important lessons which are used to further improve the decision-making processes*" and can increase the likelihood of successfully delivering future projects. The Assurance Framework also notes that it is important to understand the outcomes achieved by the funds available to the SCR. This reiterates a role evaluation has in the feedback of lessons learnt in delivery to maximise efficiency and effectiveness of future investment.

The MEP has synergy with a Benefits Realisation Plan (BRP) produced by the SCR Executive Team.

1.2 Transforming Cities Fund

In March 2018, DfT made a Call for Proposals for the TCF with funding to be allocated via two tranches: (i) Tranche 1 focused on early-delivery schemes in that financial year and (ii) Tranche 2 which supports longer-term programmes to be developed and agreed in 2019/20.

Guidance for the TCF made it clear that it is seeking "*coherent programmes of interlinking interventions which will transform connectivity in key commuter routes in city regions*"[3]. Encouraging an increase in journeys made by low carbon, sustainable modes is, therefore, a key objective of the TCF. Support for wider cross-cutting priorities is also an aspiration of the TCF, such as:

- Improving access to work and delivering growth;
- Encouraging the use of new mobility systems and technology as part of the Future of Mobility Grand Challenge[4];
- Tackling air pollution and reducing carbon emissions;
- Delivering more homes; and
- Delivering apprenticeships and improving skills.

[1] Sheffield City Region Transforming Cities Fund Tranche 2 Business Case
[2] Transforming Cities Fund: Evaluation Guidance
[3] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/786857/transforming-cities-tranche-2-applications.pdf
[4] https://www.gov.uk/government/publications/industrial-strategy-the-grand-challenges/industrial-strategy-the-grand-challenges

This has informed the development of the SCR TCF programme with the following objectives identified for the SCR TCF programme:

- To better connect the areas of transport poverty with areas of opportunity in a safe and sustainable way;
- To affect a mode shift away from the private car on those corridors where new opportunities are likely to see an increase in demand or where growth could be stifled;
- To create a cultural shift towards making cycling and walking the natural choice for shorter journeys; and
- To achieve the above in ways that address current health issues and improve air quality across the SCR, all focused on the three priority areas identified in the TCF prospectus.

1.3 MEP Structure

Following this introduction, the MEP is structured as follows:

- **Section 2** provides an overview of the **SCR TCF programme**;
- **Section 3** presents the **evaluation approach**;
- **Section 4** describes the **process evaluation methodology** and information requirements;
- **Section 5** details the **data requirements** for the **impact evaluation**;
- **Section 6** summarises the **economic evaluation considerations**;
- **Section 7** outlines the **resourcing and governance** for monitoring and evaluation activity; and
- **Section 8** identifies the **next steps** for this MEP.

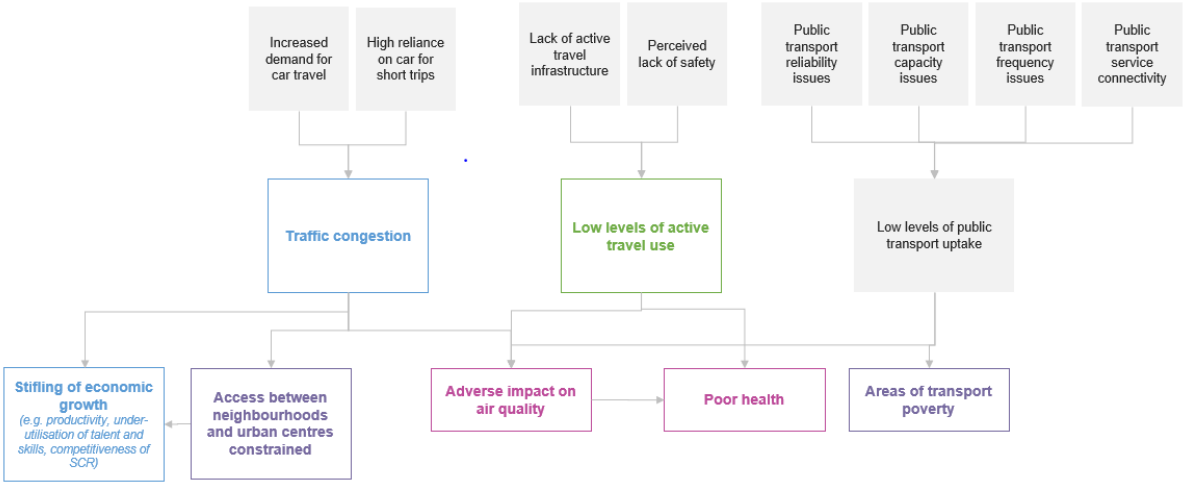
This MEP identifies an initial approach which will need to be updated with additional detail on data collection approaches in due course as the understanding of the National Evaluator requirements are confirmed and the scheme design is finalised.

2. SCR TCF Programme Overview

2.1 Rationale

The SOBC identifies a number of key issues driving the need for the SCR TCF investment in order to unlock opportunities for the economy, environment and society. These are summarised in **Figure 2.1**, with the colour-coding demonstrating the synergy to the objectives, subsequently presented in **section 2.2**.

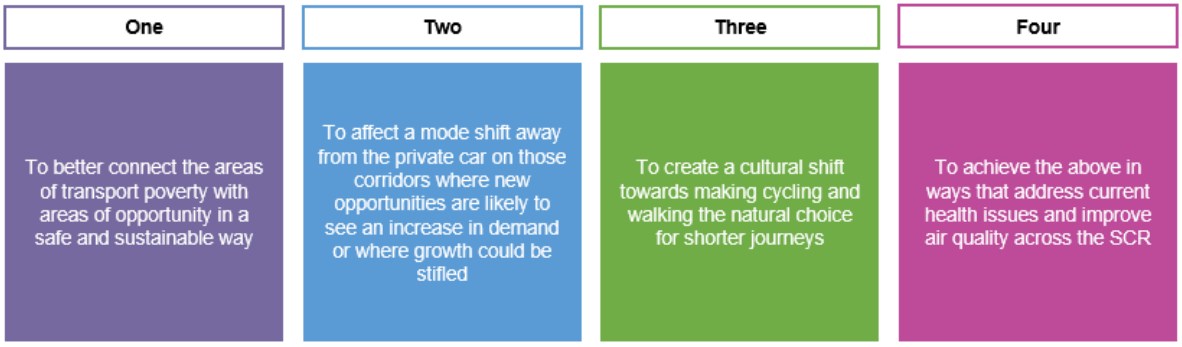
Figure 2.1: Key Transport Issues in SCR



2.2 Programme Objectives

Four objectives have been identified for the SCR TCF programme, as shown in **Figure 2.2**, which seek to address the key transport issues identified in the region.

Figure 2.2: SCR TCF Objectives



2.3 Schemes

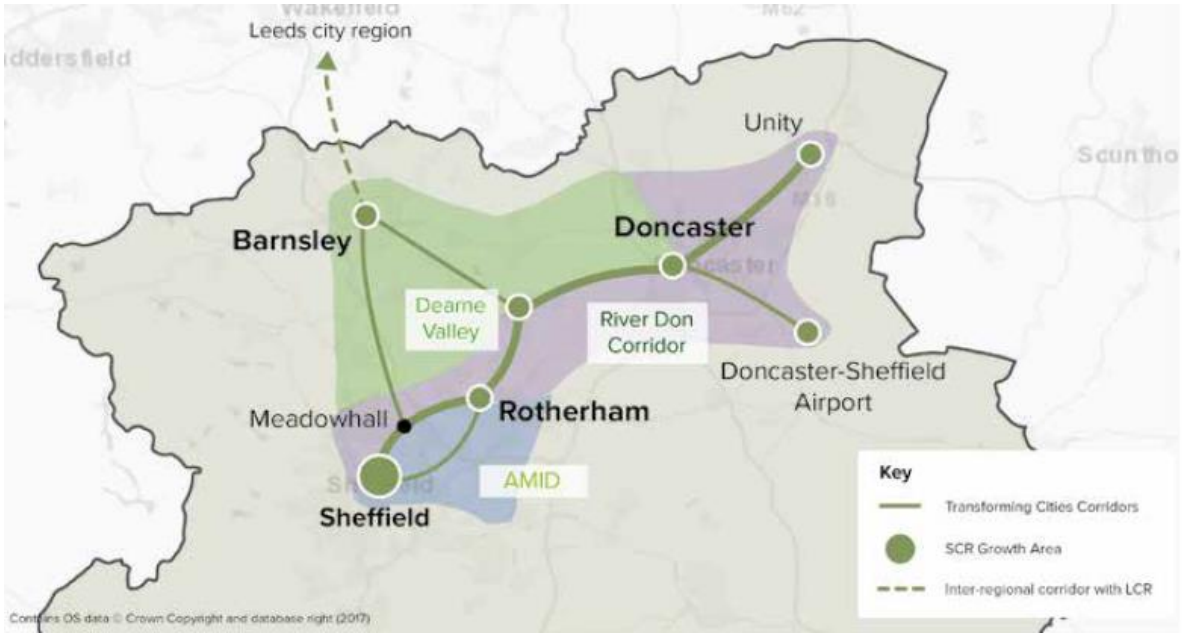
The SCR TCF programme is focused on three priority corridors within South Yorkshire, which were prioritised through the Sheffield City Region Integrated Public Transport (SCRIPT) study and subsequent TCF Prospectus[5]. The corridors are listed below and form the study area for the MEP:

- Advanced Manufacturing and Innovation District (AMID) Corridor;
- Dearne Valley Corridor; and
- River Don Corridor.

As shown in **Figure 2.3**, these corridors extend across the four South Yorkshire local authority areas i.e. Barnsley, Doncaster, Rotherham and Sheffield.

[5] Transforming Cities Prospectus: Global Innovation Corridor, Sheffield City Region, June 2018

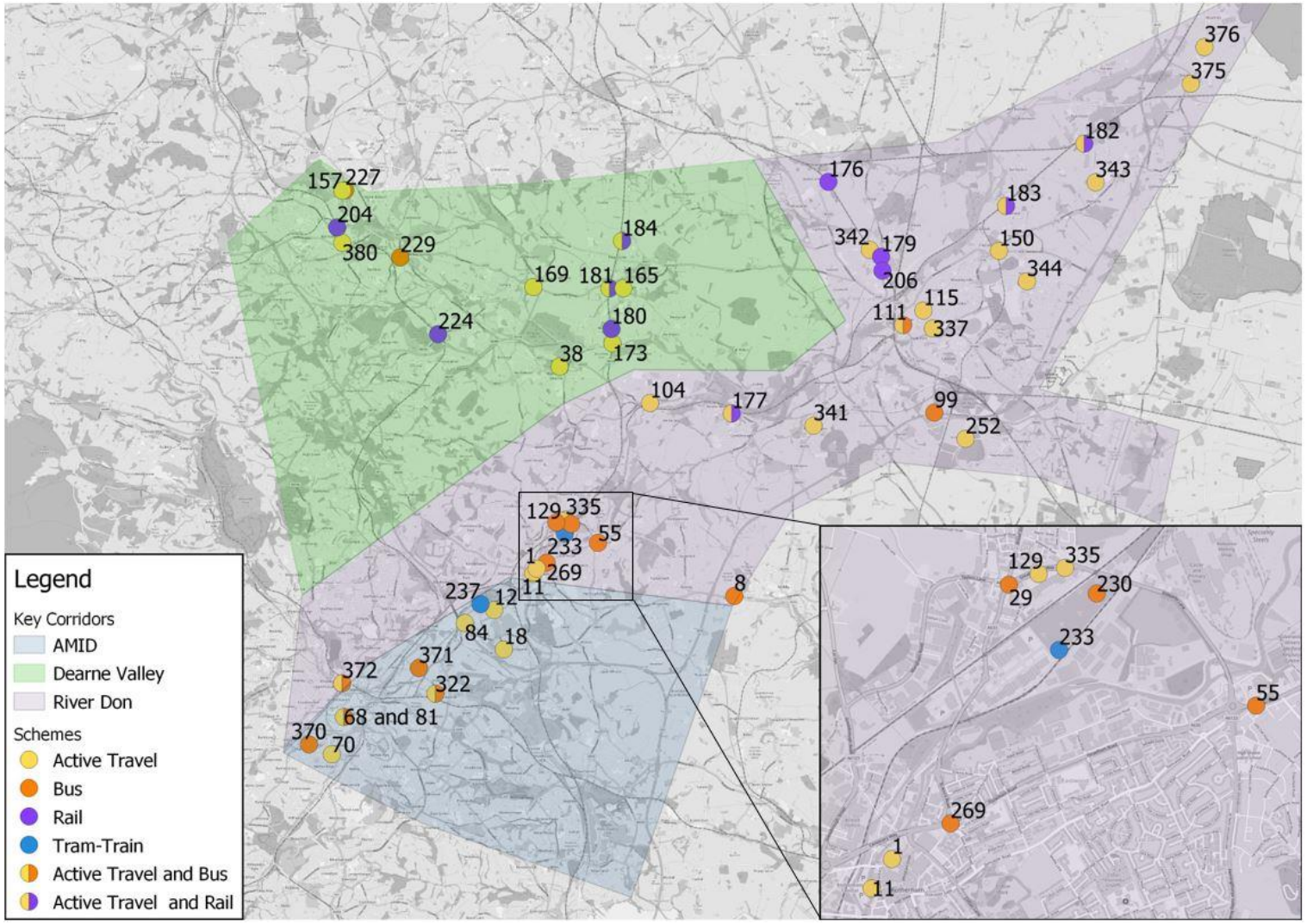
Figure 2.3: SCR TCF Priority Corridors



Source: SCR Transforming Cities Prospectus, 2019.

The SCR TCF programme is currently comprised of 58 schemes to be delivered across the three priority corridors. The location of the schemes is shown in **Figure 2.4**, with a summary of schemes provided in **Annex A.**

Figure 2.4: SCR TCF Schemes



N.B. Schemes mapped as a 'point' using latitude and longitude information within scheme information provided.

2.4 Intended Beneficiaries

The SCR TCF programme will primarily benefit the following:

- **Pedestrians:** The additional routes and improved quality of provision seek to encourage an uptake of walking as a result of the enhanced journey quality and addressing severance barriers. A number of the schemes specifically seek to improve walking access to rail stations to support the uptake of rail.
- **Cyclists:** Creating new and improved cycle provision to SCR aspirational standards encourages existing cyclists to do so more often, whilst also enabling others to start cycling. This is due to the improved journey quality with dedicated provision that can address severance and perceived safety barriers to cycling. A number of the schemes specifically seek to improve cycling access to rail stations to support the uptake of rail.
- **Public Transport Users:** The schemes will benefit bus, rail and tram-train users. Bus users will primarily benefit from improved journey times and greater journey time reliability, whilst rail users will generally benefit from an improved environment at the rail station (as well as the walking and cycling access discussed above). Establishing a new stop at Magna on the tram-train Black Line will open up the catchment of the tram-train network, supported by P&R facilities at the new stop and existing Parkgate stop.
- **Highway Users:** Several of the schemes identified as bus improvements include junction improvements, which will likely benefit all highway users.

The enhanced connectivity provided for these users will support wider objectives regarding air quality, health, and support the local and regional economy by improving access to opportunities and encouraging modal shift from private car to sustainable transport modes.

2.5 Cost

The estimated cost[6] of the SCR TCF programme is £202m, with the TCF contribution of £166m forming 82.2% of this cost alongside the local authorities contribution and private contributions. **Table 2.1** summarises the scheme cost by corridor and mode, as well as the programme 'headroom' value and SCR programme management. The breakdown highlights the majority of the scheme cost is for active travel and bus schemes and therefore the emphasis is on local connectivity within the priority corridors.

Table 2.1: SCR TCF Cost Breakdown, by Corridor and Mode

Corridor	Active Travel	Active Travel and Bus	Bus	Rail	Tram-Train	Total
AMID	£20,493,621	£52,293,461	£7,446,633	-	£5,410,000	£85,643,715
Dearne Valley	£20,647,211	-	£36,409,666	£2,105,666	£3,580,000	£62,742,023
River Don	£21,434,913	£3,950,000	£8,450,000	£1,352,397	-	£35,187,310
Sub-Total	£62,575,745	£56,243,461	£52,306,299	£3,457,543	£8,990,000	**£183,573,048**
					Programme 'Headroom' Value	**£16,544,915**
					SCR Programme Management	**£2,296,136**
					Total	**£202,414,099**

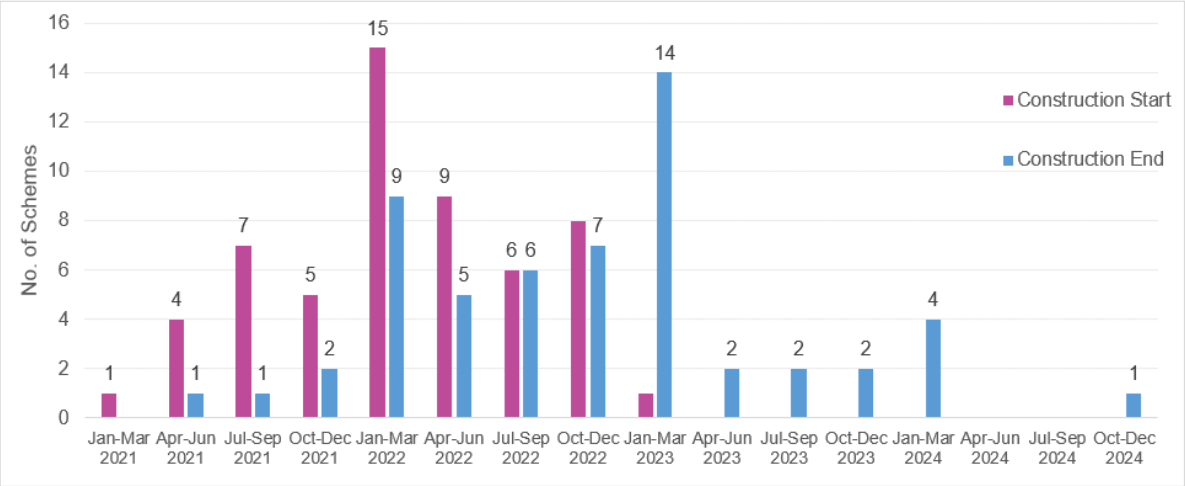
2.6 Timeframe

The anticipated timeframe for delivery is imminent with construction expected to start in March 2021 for the first scheme, with construction due to be completed for all schemes by October 2024. **Figure**

[6] As of October 2020.

2.5 shows the estimated construction start and completion, by quarter, and highlights the benefits for the majority of schemes will start to be realised from 2022.

Figure 2.5: Estimated Start and Completion of Scheme Construction, by Quarter



N.B. The estimated dates for two schemes are unknown.

4. Evaluation Approach

4.1 Definitions

Monitoring and evaluation are important components within the life cycle of any project, as illustrated in the Green Book[7] ROAMEF cycle, which stands for Rationale, Objectives, Appraisal, **Monitoring**, **Evaluation** and Feedback. While monitoring and evaluation are identified towards the end of the cycle, it should have a role throughout project delivery to ensure the objectives are met and this is reiterated in the Magenta Book[8] which states "*evaluation is useful at all stages*" and should inform thinking throughout the ROAMEF cycle (i.e. before, during and after projects are implemented). **Section 7.5** refers to the dissemination of monitoring and evaluation findings and supports the Feedback component of the project lifecycle.

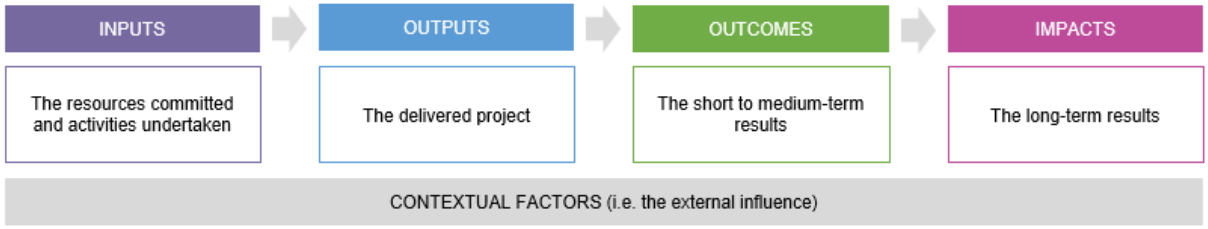
From the outset, it is important to consider the definition of, and distinction between, monitoring and evaluation:

- **Monitoring** seeks to check progress against planned targets in order to consider whether the scheme has achieved what it intended to do and how success metrics have changed over time.
- **Evaluation** is the assessment of the effectiveness and efficiency of the project during and after implementation. This enables an understanding of whether the project worked as expected, was it cost-effective and what was the impact of the project, on who, and why.

The Magenta Book highlights learning and accountability are the two primary reasons for undertaking evaluation and this has been considered throughout the preparation of this MEP.

DfT guidance refers to inputs, outputs, outcomes and impacts within the monitoring and evaluation approach. The relationship between these is shown in **Figure 3.1** and these aspects are further elaborated in **section 3.4** for the SCR TCF programme specifically. This also highlights the importance of understanding contextual factors influencing the inputs, outputs, outcomes and impacts.

Figure 3.1: Defining Inputs, Outputs, Outcomes and Impacts



4.2 Scope of Evaluation

The Magenta Book identifies three core strands of evaluation: (i) process, (ii) impact and (iii) economic (value for money). This three-strand approach provides a full understanding of whether an intervention worked, how, why and for whom, and at what cost.

A **process evaluation** reviews the activities involved in the delivery of a project to understand what lessons can be learnt. A process evaluation is multi-faceted and typically utilises both qualitative and quantitative approaches to understand objective issues (e.g. the costs and programme), as well as subjective issues (e.g. perception of the implementation).

The **impact evaluation** considers what difference the project has made by gaining an understanding of the changes in measurable outcomes (intended and unintended) and the extent to which outcomes

[7] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/685903/The_Green_Book.pdf

[8] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/879438/HMT_Magenta_Book.pdf

can be attributed to the delivered project. This also explores whether, and why, particular groups have been impacted in different ways, as well as how contextual changes may have influenced the observed changes.

An **economic evaluation** reflects on the outturn costs and benefits to review the value for money assessment made in the Full Business Case.

There is overlap between the MEP and BRP. The BRP logs and tracks the benefits (e.g. outcomes and impacts), while the MEP details the mechanisms to determine if the effects of the project have occurred and an appreciation of the attribution between the projects and effects.

4.3 Attribution

An understanding of the project and how it is expected to achieve the outcomes is important for establishing an effective approach to monitoring and evaluation. The TCF Evaluation Guidance identifies the need to develop a 'Theory of Change' (ToC) to articulate how projects will lead to the expected changes by presenting the assumed causal links between the outputs, outcomes and impacts. Logic mapping has been utilised for this MEP to set out the anticipated ToC and further detail is provided in **section 3.4**.

Attribution considers the extent to which an outcome or impact occurred due to the delivered scheme. With numerous aspects often influencing medium-term outcomes and impacts, this can be complex so it is important to identify how this will be undertaken. For the SCR TCF, a 'before' and 'after' comparison of the outcomes and impacts will be undertaken in order to evaluate the assumed connections between the outputs, outcomes and impacts (as shown in the ToC). Discussions with key stakeholders will supplement this understanding of the attribution and the assessment of causality.

With 58 schemes, it is likely many of the schemes will work alongside other schemes to deliver the step-change in sustainable transport connectivity within the three priority corridors. Consequently, the medium-term outcomes and impacts are more likely to be attributable to the programme rather than specific schemes.

Finally, an alternative approach is the use of an experimental or quasi-experimental approach. However, as the priority corridors consider broad areas, identifying a comparison area with similar characteristics would complicate attribution, particularly for the transportation outcomes. In addition, a comparison area is likely to be outside of the SCR and this provides challenges for primary research and data collection methods. A light-touch quasi-experimental approach could be utilised for some of the medium-term outcomes which use readily available secondary data sources. This could consider the performance by district (Barnsley, Doncaster, Rotherham and Sheffield), as well as across the SCR to provide a comparative understanding of the changes experienced.

4.4 Logic Mapping

Logic mapping has been used to map the scheme outputs (i.e. the deliverables of a scheme), outcomes (i.e. the immediate results) and anticipated impacts (i.e. long-term results) and trace them back to the scheme's objectives. Logic mapping is an established technique and provides a useful evaluation framework where:

- Interventions are complex (e.g. multi-layers, multiple interventions);
- The causal logic is not straightforward;
- The timescale from intervention to impacts is long (and potentially variable); and
- There is a need to track progress through time and explain variance.

Figure 3.2 presents the overall logic map for the SCR TCF programme and shows the relationship between the scheme objectives, outputs and anticipated outcomes and impacts. Owing to the number of schemes (n=58) and synergy between schemes to deliver medium-term outcomes and impacts, it was considered appropriate to consider packages of schemes, by mode, within the logic map. The subsequent sections of this MEP consider the data requirements to monitor the outputs, outcomes and impacts.

The overall SCR TCF programme logic map is accompanied by three logic maps to provide more detailed understanding of the assumed changes along the three priority corridors (**Figure 3.3 to 3.5**). Recognising the unique conditions and characteristics of the three corridors, and potential for external factors to affect outcomes and impacts in these distinct geographies, the evaluation seeks to consider the distinct priority corridors, as well as the cumulative impact for the SCR. For example, the AMID Corridor is characterised by the 2,000-acre centre of excellence for innovation-led research and industrial collaboration with the schemes focused on connectivity to Sheffield City Centre to support access to the opportunities in the AMID. Meanwhile, the Dearne Valley Corridor permeates through Barnsley, Doncaster and Rotherham with the schemes seeking to improve sustainable transport connectivity across the corridor by rail, bus and active travel. The River Don Corridor extends between two of the city region's key growth areas (Sheffield City Centre to the Unity site to the north east of Doncaster) and the proposed schemes seek to support uptake of sustainable travel within this area by addressing barriers to public transport and active travel.

4.5 Evaluation Objectives and Research Questions

The SCR TCF programme objectives and logic mapping help to define the scope of the monitoring and evaluation required. The following evaluation objectives have been identified for the SCR TCF monitoring and evaluation activity:

- To understand if the SCR TCF schemes were delivered effectively and efficiently;
- To ascertain the causal effect of the scheme on the anticipated outcomes and whether these have contributed to intended impacts in the priority corridors; and
- To determine whether there have been any unintended positive or adverse effects.

These evaluation objectives are accompanied by series of research which are posed to determine if the evaluation objectives have been met. **Table 3.1** illustrates the alignment between the evaluation objectives, research questions and logic map components.

Table 3.1: SCR TCF M&E Summary

SCR TCF Evaluation Objective	SCR TCF Research Question	Logic Map Component
To understand if the SCR TCF schemes were delivered effectively and efficiently	▪ Were the SCR TCF schemes delivered on time and to budget? ▪ What lessons have been learnt during delivery of the SCR TCF schemes?	**Inputs & Outputs**
To ascertain the causal effect of the SCR TCF schemes on the anticipated outcomes and whether these have contributed to intended impacts in the priority corridors	▪ What has the effect on public transport journey times been? ▪ How has the perception, and use, of active travel facilities changed? ▪ Who uses the new provision and how were they travelling previously for these journeys (if at all)? ▪ How has connectivity between settlements and areas of opportunity changed? ▪ How have levels of transport poverty changed within the priority corridors? ▪ To what extent has the scheme had a positive impact on the priority corridors in the SCR and are these likely to occur on other schemes? ▪ What negative effects have there been (if any) and are these likely to occur on other schemes?	**Outcomes & Impacts**

SCR TCF Evaluation Objective	SCR TCF Research Question	Logic Map Component
To determine whether there have been any unintended positive or adverse effects	▪ What are the unintended effects and are they likely to occur on other schemes?	**Outcomes & Impacts**

Figure 3.2: SCR TCF Programme Logic Map

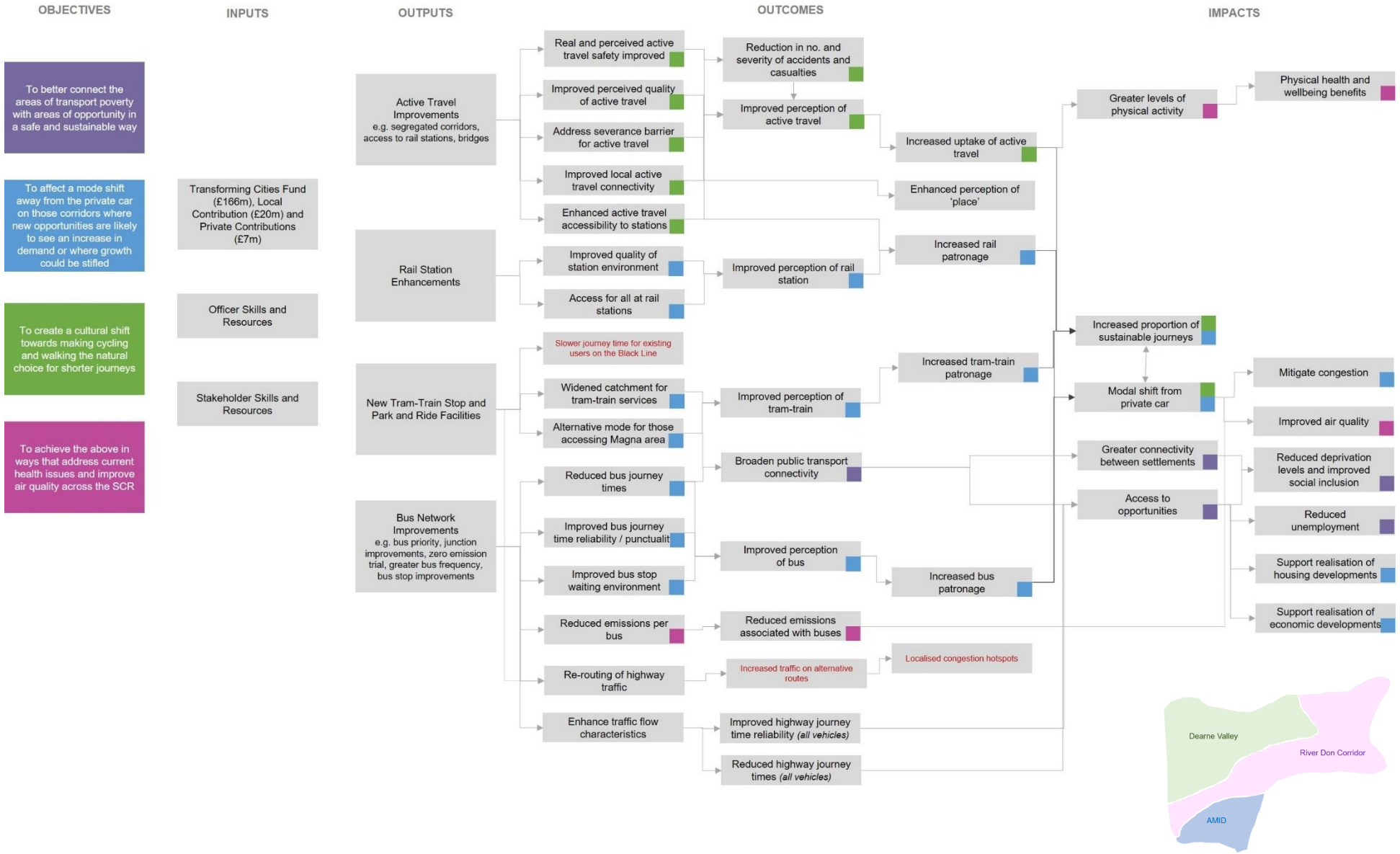


Figure 3.3: AMID Corridor Logic Map

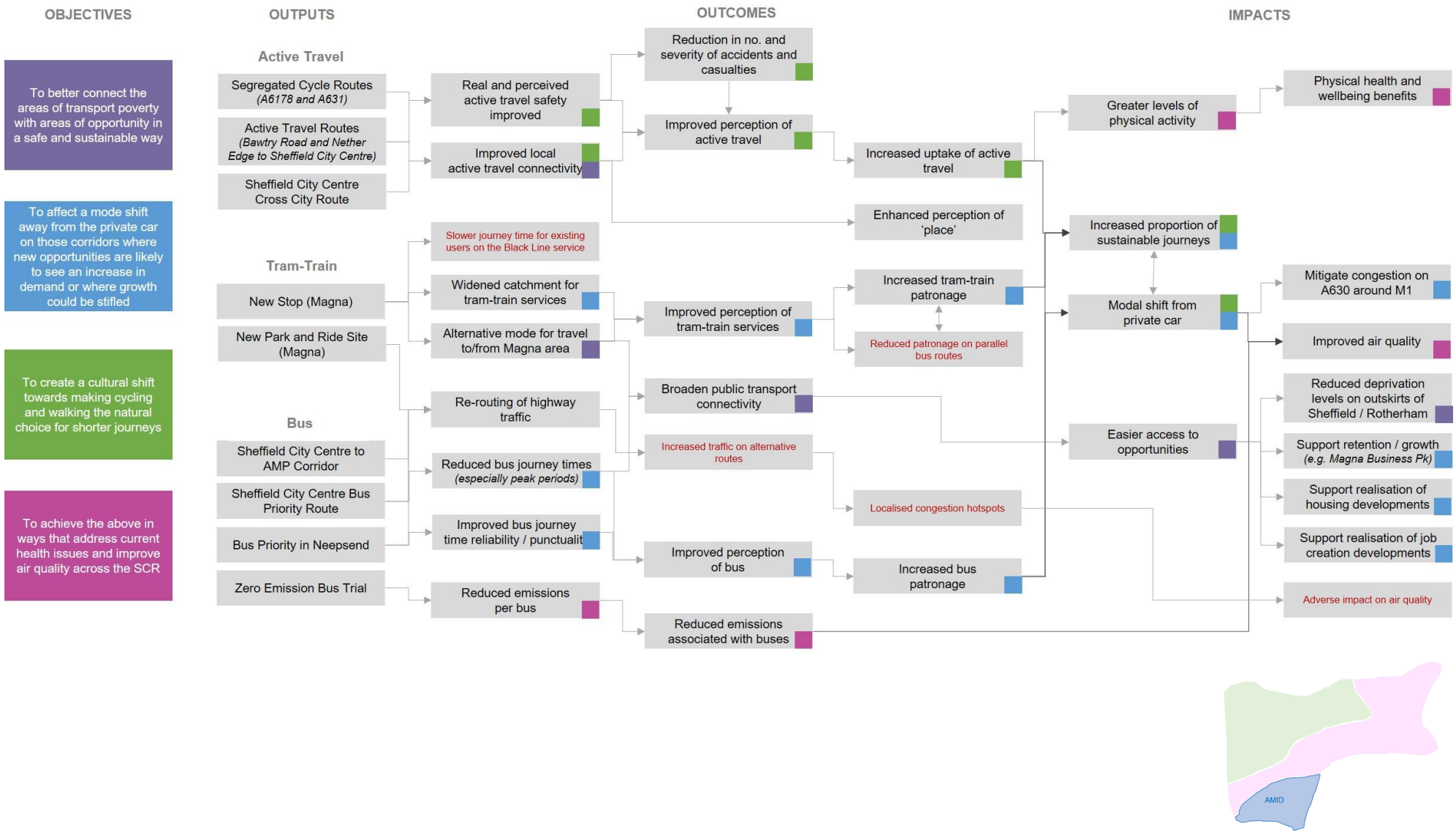


Figure 3.4: Dearne Valley Corridor Logic Map

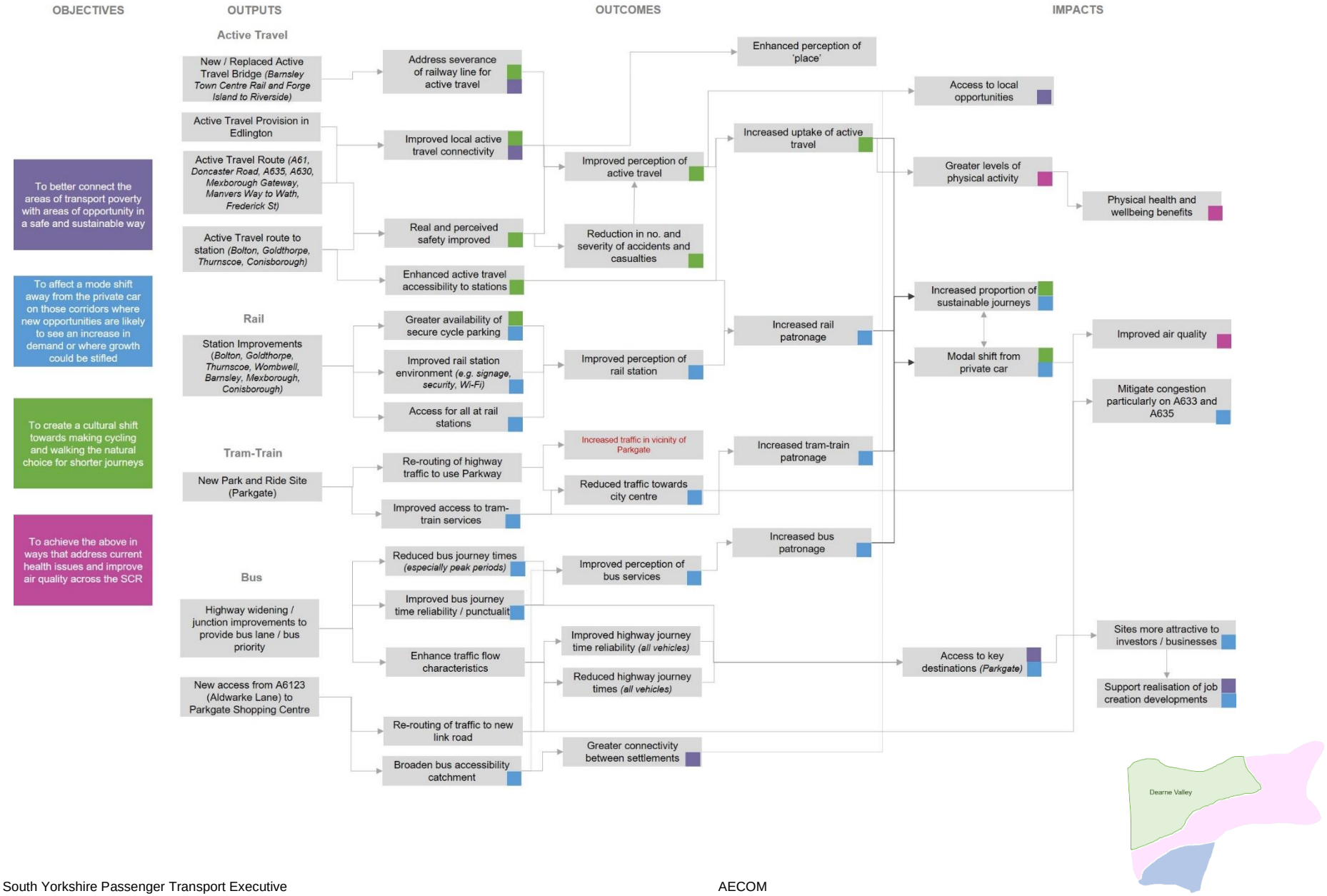
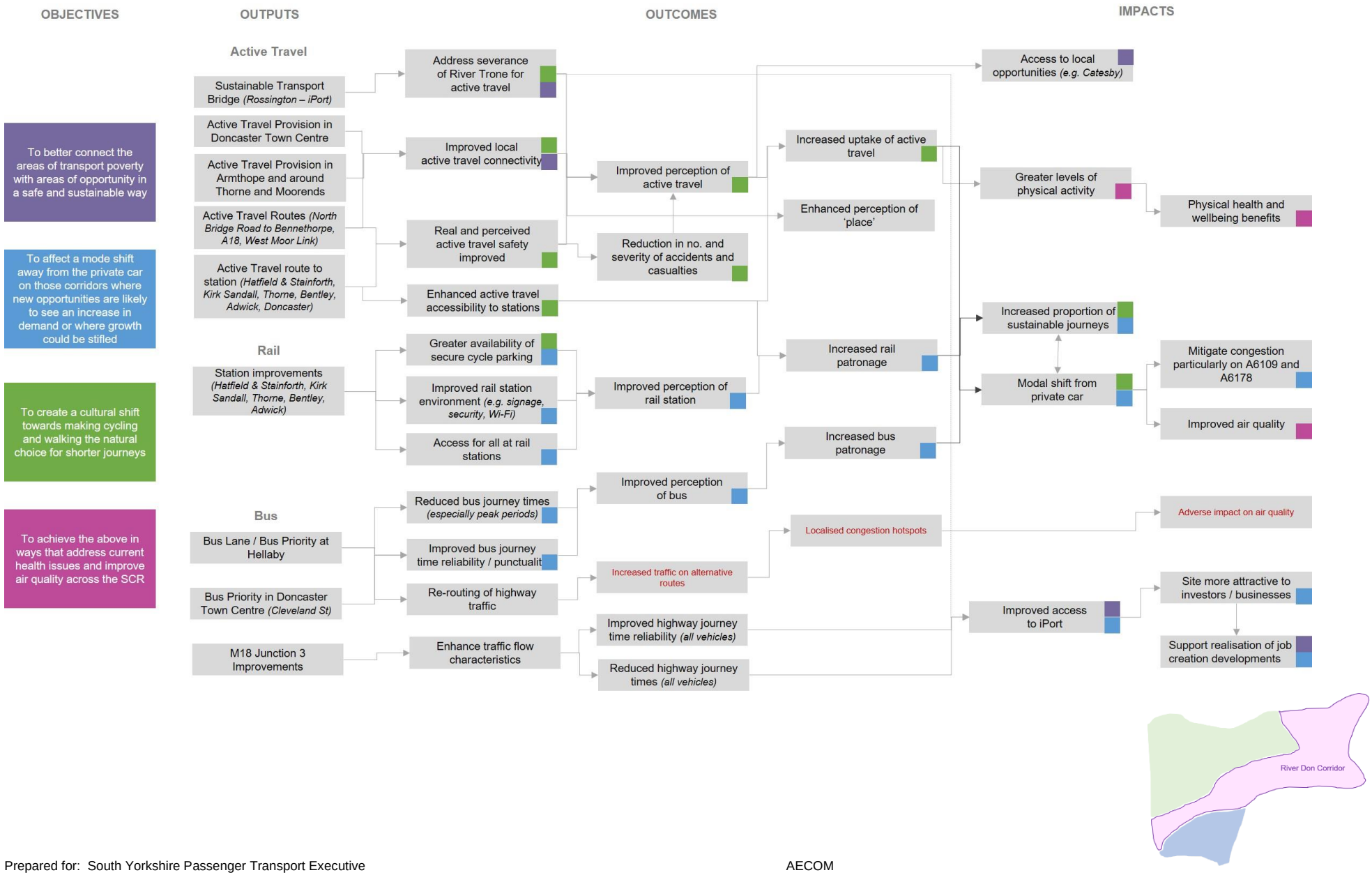


Figure 3.5: River Don Corridor Logic Map



5. Process Evaluation

5.1 Introduction

The process evaluation will seek to answer the first evaluation objective about whether the SCR TCF programme schemes were delivered effectively and efficiently. Understanding what has been delivered, how efficiently delivery has been achieved and the outturn standard / design of the scheme, will all feed into the assessment of outcomes and impacts. The process evaluation will consider a number of themes, as detailed in this section.

5.1.1 Delivered Scheme

Following construction and opening of the schemes, an in-depth discussion with the Project Manager (and any other relevant members of the project team) regarding the outturn scheme design, standard and quality will be undertaken. The evaluation will, therefore, assess any changes in scheme design or key assumptions, the reasons for such changes and the possible impacts generated.

It is expected that audits will be undertaken before the scheme construction, particularly for the active travel and rail station improvements, to provide a Baseline assessment of the facilities available. Repeating these audits following construction will provide a mechanism for assessing the change in provision.

Evaluation Questions

- How does the outturn scheme design compare with the approved funding design?
- What were the main causes of change?
- What were the consequences (costs and benefits) of changes to the scheme?

5.1.2 Programme Milestones

A review of the planned and actual milestones in the delivery of SCR TCF programme schemes will be undertaken. **Section 2.6** highlighted construction is due to start in 2021 and be completed in 2024 with a phased delivery of the schemes during this period.

Quantifiable metrics on the duration for delivering schemes will explore the level of slippage by scheme and the overall programme. Discussions with the Project Manager will discuss programme slippage, changes in phasing and the consequences on dependent delivery activities. The mitigation measures to be implemented to manage programme changes will be identified and reviewed with the Project Manager.

Evaluation Questions

- What were the changes in programme delivery and milestones and how were they mitigated?
- What were the causes of programme slippage or change, and how were the risks manged?
- How could programme slippage have been forecast and managed to minimise impacts on dependent activities?

5.1.3 Finances

The SCR TCF programme has been costed as £202m (**Table 2.1**). The process evaluation will assess the validity and accuracy of these cost forecasts and, importantly, any changes that occur during the scheme construction. This evaluation will, therefore, consider the following:

- Barriers to delivering the programme, and individual schemes, to budget;
- Causes of any variance (savings and increases) in costs incurred;

- Critical success factors in managing the cost of the schemes and overall programme; and
- Financial risks associated with schemes and their manifestation / mitigation.

Monitoring the budget for delivery of the SCR TCF programme will utilise cost spreadsheets / project dashboard reporting (or similar) to demonstrate how costs have tracked over time with depth discussions with pertinent members of the project team to fully ascertain the management of the budget, including the cause, risks and mitigating actions for any variance in the costs.

Evaluation Questions

- What were the main challenges in costing the schemes and overall programme?
- Which schemes generated greatest variance from budget costs and why?
- Which financial risks manifested? When and with what consequences?
- What were the outturn ongoing costs of the schemes? How does this compare with the forecast costs?
- What were the outturn maintenance costs of the schemes? How does this compare with the forecast costs?

5.1.4 Risk

A copy of the Risk Register was presented with the SOBC. The Risk Register is the primary means for recording risk information and monitoring risk exposure throughout the life of the programme. The latest version (November 2020) of the programme level Risk Register identifies 23 risks.

The SOBC noted that a Risk Management Plan will be produced in subsequent iterations of the business case which will set out the overall strategy for actively managing risk to a level that is ‘as low as reasonably practicable’ and ensure that risk management is part of the development of the programme.

The process evaluation will explore the issues during delivery (i.e. risks realised) with regards to three core strands of enquiry: (i) implications of the risk, particularly on cost and programme, (ii) mitigation actions and their effectiveness and (iii) escalation of risks and the effectiveness of additional mitigation measures. This will be undertaken by reviewing the Risk Register and discussions with the individual responsible for managing risks.

Evaluation Questions

- What were the main risks encountered during the scheme delivery?
- Which measures were successful in mitigating issues and opportunities?
- Which risks required escalation?
- How effective were risk transfer procedures?

5.1.5 Resources

The size and multi-modal nature of the SCR TCF programme will require a blend of staff resources and skills. The process evaluation will assist in understanding the extent to which there was sufficient and suitable staff resource for delivery of the programme. This could support the understanding of the skills and resources required to deliver similar schemes.

An in-depth discussion with the Project Manager and members of the project team will help to determine the key resource and skill requirements. Discussions with any suppliers and contractors utilised could also identify opportunities to evaluate the resources used to deliver the programme including the procurement and management processes.

Key aspects to consider will be the level of resources applied to scheme delivery and for any shortfall in requirements, the cause and potential impacts, performance of internal teams, suppliers and contractors, range of bid costs and quality received for those aspects procured, and an understanding of staff turnover alongside the impacts this can have on delivery costs and efficiency.

Evaluation Questions

- What were the gaps in the level and quality of human resources during the course of scheme development and construction?
- How could these gaps be mitigated and planned for in the scheme development procedures?
- What were the key risks associated with accessing materials and professional services?
- Which areas of scheme delivery had the greatest elements of risk regarding resourcing?

5.1.6 Stakeholder Engagement

The SOBC identifies a number of stakeholders that have been involved in the development of public transport and active travel schemes. The type and frequency of information to be provided to stakeholder during scheme development and construction of schemes under the SCR TCF programme is unclear, but the process evaluation will seek to understand the frequency and method(s) of engagement, as well as the effectiveness of this engagement.

Depth discussions with pertinent members of the project team and key stakeholders will help to shape this understanding.

Evaluation Questions

- Which stakeholder management and engagement mechanisms were most effective and why?
- What lessons can be learnt regarding the timing and extent of stakeholder management?

5.1.7 Context

It is recognised that changes in contextual factors should be considered in order to attribute any observed changes to the SCR TCF schemes and understanding the likelihood of similar results being achieved in other areas. This will need to include contextual changes throughout the ex-ante, construction and post opening at a local (priority corridors), regional (South Yorkshire and SCR) and national level. Key contextual factors to consider will be:

- Additional transport investment in the area;
- Activities influencing development or employment activity;
- Changes to the wider economy (e.g. fuel prices, rental prices, employment characteristics, socio-demographics); and
- The impact of the Covid-19 outbreak, as well as the recovery.

Contextual factors will be determined using available datasets and during engagement with stakeholders. This will help to understand the extent to which contextual factors influenced the delivery of the scheme and the scheme outcomes. The evaluation will also consider how transferable the outcomes / impacts are as a result of the influence of the observed contextual factors.

Evaluation Questions

- What are the changes in scheme context? (*between Baseline, scheme completion and ex-post periods*)

- Have any contextual factors influenced the delivery of the scheme? If so, how?
- Which contextual factors influenced the observed short-term outcomes of the TCF programme in the SCR? How?
- How transferable are the impacts of contextual factors to other schemes and locations?

5.1.8 Causal Pathway Review

As a result of the changes in the delivered scheme and scheme context, the logic maps presented will be updated to understand the interrelationships between scheme components and the anticipated outcomes and impacts. This will help to inform whether the scheme is on track to deliver the anticipated benefits in the longer term.

The audits of schemes delivered, and user-related quality, will be able to highlight the potential changes in short-term outcomes, particularly those that are expected to trigger modal shift.

Evaluation Questions

- Which causal pathways have changed since the Baseline logic mapping? Why?
- What short-term outcomes are expected to be realised?

5.1.9 Summary

A summary of the SCR TCF programme process evaluation metrics is provided in **Table 4.1**.

Table 4.1: SCR TCF Programme Process Evaluation Metrics

Metric	Purpose	Data Collection
Delivered scheme	To understand any changes in schemes delivered and the implications for cost, programme and anticipated benefits.	Project reporting Scheme Audit *(active travel and rail station improvements)* Interview with Project Manager
Costs / investment	To identify any variance in costs associated investment in each scheme, and the overall SCR TCF programme.	Planned and Actual Expenditure Interview with Project Manager
Programme milestones	To track slippage and delays in delivery and to understand the reasons, risks and mitigation measures.	Planned and Actual Milestones Interview with Project Manager
Risk Register	To assess emerging risks, their ownership, mitigation and effectiveness of management procedures.	Risk Register Interview with Risk Lead
Staffing and resources	To assess the allocation of resource levels, skill set requirements and gaps, staff turnover and capacity.	Interview with Project Manager
Stakeholder Engagement	To assess the effectiveness of stakeholder communications and engagement.	Interview with Stakeholder Lead

The logic maps identify a number of outputs and **Table 4.2** identifies the key metrics to monitor the extent to which these have been delivered. These outputs will need to be expanded upon with greater detail as greater detail regarding the schemes is provided through the business case process.

Table 4.2: SCR TCF Programme Outputs

Output	Metric(s)	Data Collection
Change in quantity and quality of cycle infrastructure	Length of new cycleways, by type of provision (*e.g. off-road segregated, on-road segregated, etc*) Length of improved cycleways, by type of provision Number of crossings upgraded for cyclists Number of new / improved and type of cycle parking spaces provided	Scheme Plans Scheme Audit (larger schemes) Project Manager knowledge
Change in quantity and quality of pedestrian infrastructure	Length of new walkways Length of improved walkways Number and type of crossings upgraded for pedestrians	Scheme Plans Scheme Audit (larger schemes) Project Manager knowledge
Change in quality of rail station environment	Audit of new and improved facilities at rail station	Scheme Audit (larger schemes) Project Manager knowledge
Change in tram-train services and facilities	New park and ride spaces provided Service frequency and journey time from new stop	Scheme Plans Timetable
Change in quantity and quality of bus infrastructure	Length of new / improved bus priority Number of new / improved bus stops Bus priority violations Number of junctions upgraded with traffic signal priority	Scheme Plans

6. Impact Evaluation

6.1 Introduction

The scheme objectives and logic mapping outlined in **sections 2** and **3**, help to define the scope of the monitoring and evaluation required. This section details the proposed data requirements for the outcomes and impacts anticipated for the programme, as well as the proposed data collection methods for the metrics identified.

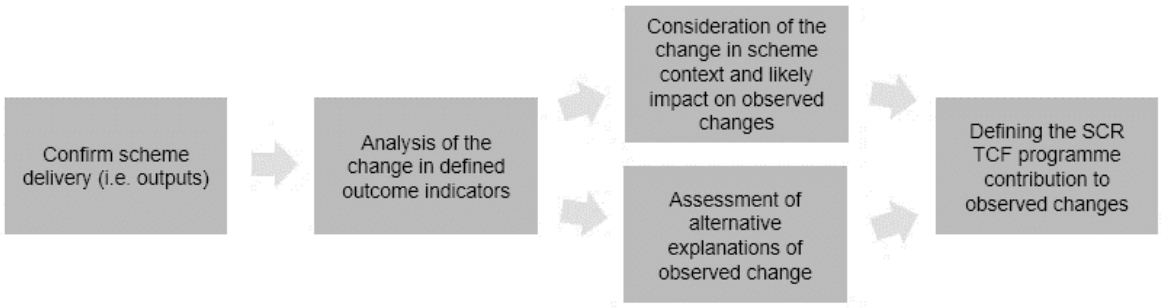
6.2 Methodology

As outlined in **section 3**, this is a combined evaluation approach which will use a 'before' and 'after' comparison of the outcomes and impacts alongside stakeholder depth discussions to consider the changes. This will test the assumed ToC to understand causality and the contribution of the scheme(s) to observed changes, as well as an assessment of any unintended impacts.

The logic mapping will be used to track progress following construction for key indicators of change, using available datasets to consider the impacts of the scheme and alternative explanations. This will include quantitative monitoring data and discussions with key stakeholders will supplement this understanding.

Figure 5.1 summarises the impact evaluation approach and highlights the synergy with the process evaluation with regards to the delivered scheme and contextual changes.

Figure 5.1: Impact Evaluation Overview



The timescales associated with the data collection requirements are assumed to be as follows:

- Baseline data should be collected / collated for each metric before the scheme construction;
- Initial analysis of monitoring data conducted 1-2 years after scheme opening; and
- Further data collection approximately 3-5 years after scheme opening.

Construction is anticipated to begin in 2021, so the Baseline period should be prior to this. With the Covid-19 outbreak in 2020 and significant implications on travel behaviours, it is anticipated the Baseline will be defined as 2019 to provide a consistent base across the programme and because data from 2020 will be affected by the travel restrictions associated with the outbreak. Consequently, this places an emphasis on the use of existing data for the Baseline period and the use of retrospective research to understand the change in perceptions once the schemes are built.

Activity post-implementation is currently anticipated to take place 1-2 years and 3-5 years after opening with the specific timeframe to be confirmed following the receipt of TCF evaluation guidance from DfT.

Evaluation Questions

- What changes in outcome and impact indicators have been observed?
- How do the changes in outcome and impact indicators vary by priority corridor?
- What contribution did the SCR TCF programme make to any observed changes?
- What unintended outcomes have been observed and what was the cause?
- To what extent has the SCR TCF programme met its objectives?

6.3 Data Requirements

This section details the data requirements for the impact evaluation, namely the metrics associated with the outcomes and impacts identified in the logic maps. **Tables 5.1** and **5.2** describe the data requirements for the outcomes and impacts, including the alignment with the scheme objectives (as detailed in **section 2.2**). Further detail is subsequently provided in **section 5.4** for the data sources identified in the tables.

Table 5.1: Outcome Metrics – Data Required

Outcome	Objective				Data to be Used	Data Source	Collated / Collected by
Real and perceived active travel safety improved	1	2	3	4	Perception of safety amongst pedestrians and cyclists	Pedestrian and Cyclist Intercept Survey	Project Sponsor *(larger schemes)*
						Survey with Non-Users	SCR
Reduction in no. and severity of accidents and casualties (involving pedestrians / cyclists)	1	2	3	4	Accident and casualty numbers (pedestrians and cyclists) and cause of accidents	STATS19 data	Project Sponsor
Improved perceived quality of active travel infrastructure	1	2	3	4	Perception of walking and cycling provision in the area *(e.g. desire lines, quality, signage)*	Pedestrian and Cyclist Intercept Survey	Project Sponsor *(larger schemes)*
						Survey with Non-Users	SCR
Address severance barrier for active travel	1	2	3	4	Mapped isochrones of before and after connectivity	TRACC	SYPTE
					Perception of severance barrier	Pedestrian and Cyclist Intercept Survey	Project Sponsor *(larger schemes)*
						Survey with Non-Users	SCR
Improved local active travel connectivity	1	2	3	4	Mapped isochrones of before and after connectivity, number of people within defined travel time	TRACC	SYPTE
Enhanced active travel accessibility to stations	1	2	3	4	Passenger / public perception regarding ease of getting to station	Rail Passenger Survey	SYPTE
					Mapped isochrones of before and after connectivity, number of people within defined walking time of station	TRACC	SYPTE
Improved perception of active travel	1	2	3	4	Perceptions of active travel improved *(e.g. willing to consider walking and cycling)*	Pedestrian and Cyclist Intercept Survey	Project Sponsor *(larger schemes)*
						Survey with Non-Users	SCR

Outcome	Objective				Data to be Used	Data Source	Collated / Collected by
Increased uptake of active travel	1	2	3	4	Number of people walking or cycling	Pedestrian and Cycle Counts	Project Sponsor
					Perceptions of amount walking / cycling (i.e. stated behaviours)	Pedestrian and Cyclist Intercept Survey	Project Sponsor *(larger schemes)*
Improved quality of station environment	1	2	3	4	Facilities at station	Station Audit (see Table 4.1)	SYPTE
Greater availability of secure cycle parking	1	2	3	4	Cycle parking occupancy	Cycle Parking Count	Project Sponsor
Access for all at rail stations	1	2	3	4	Compliance with accessibility requirements	Station Audit (see Table 4.1)	SYPTE
					Perceptions of rail passengers	Rail Passenger Survey	SYPTE
Improved perception of rail station	1	2	3	4	Perceptions of rail passengers of quality of station *(e.g. information, safety / security, accessibility)*	Rail Passenger Survey	SYPTE
Increased rail patronage	1	2	3	4	Annual station entries / exits	Office of Rail and Road (ORR) Estimates of Station Usage	SYPTE
					Stated behaviours of rail passengers	Rail Passenger Survey	SYPTE
Widened catchment for tram-train services	1	2	3	4	Mapped isochrones of before and after connectivity, number of people within defined travel time	TRACC	SYPTE
Alternative mode for those accessing key destinations	1	2	3	4	Perception amongst employees at key destinations in the corridors	Employee Survey	SYPTE
Improved perception of tram-train	1	2	3	4	Perception of tram-train service	Transport Focus Tram Passenger Survey	SYPTE
					Perception of the new Magna stop and service available	Magna Stop Passenger Survey	SYPTE
Improved access to tram-train services	1	2	3	4	Use of P&R facility	P&R Count Data (Magna and Parkgate Stops)	SYPTE

Outcome	Objective				Data to be Used	Data Source	Collated / Collected by
Increased tram-train patronage	1	2	3	4	Tram-train boarding and alighting data	Operator Records	SYPTE
					Perceptions of amount of travel by tram-train and any change in the stop used	Magna Stop Passenger Survey	SYPTE
Reduced bus journey times	1	2	3	4	Bus journey times along defined routes / services	Operator Records / SYPTE Transport Corridor Data	SYPTE
Improved bus journey time reliability and punctuality	1	2	3	4	Standard deviation from planned journey time (for journey and at stops)	Operator Records / SYPTE Transport Corridor Data	SYPTE
Greater bus frequency	1	2	3	4	Number of services operating along route / corridor	Operator Records / SYPTE Timetable Database	SYPTE
Improved perception of bus	1	2	3	4	Passenger perception of bus reliability, punctuality, satisfaction etc	Bus Passenger Survey	SYPTE
					Number of complaints regarding the services along the corridor	SYPTE Customer Relationship Management (CRM) System Complaints	SYPTE
Increased bus patronage	1	2	3	4	Bus patronage data	Operator Records	SYPTE
	1	2	3	4	Perceptions of amount travel by the bus	Bus Passenger Survey	SYPTE
Broaden public transport connectivity	1	2	3	4	Mapped isochrones of before and after connectivity, number of people within defined travel time	TRACC	SYPTE
Reduced emissions per bus	1	2	3	4	Bus fleet composition	Operator Records	SYPTE
Reduced emissions associated with buses	1	2	3	4	Bus fleet composition	Operator Records	SYPTE
Re-routing of highway traffic	1	2	3	4	Change in traffic volume through links - traffic counts	Highway Data	Project Sponsor / SCR

Outcome	Objective				Data to be Used	Data Source	Collated / Collected by
Increased proportion of sustainable journeys	1	2	3	4	Stated mode of travel	Bus, Rail and Magna Stop Passenger Survey	SYPTE
					Stated mode to work	Household Travel Survey	SYPTE
						Employee Survey	Project Sponsor or SYPTE (depending on the outcomes of Sustainable Transport Access Fund (STAF) investment)
					Frequency of walking and cycling per person	Active Lives Adult Survey *(to provide overall understanding and complement scheme-specific data collected above)*	Project Sponsor
Modal shift from private car	1	2	3	4	Stated mode of travel	Bus, Rail and Magna Stop Passenger Survey	SYPTE
					Stated mode to work	Household Travel Survey	SYPTE
						Employee Survey	Project Sponsor or SYPTE (depending on the outcomes of STAF investment)
					Cordon counts	Cordon Count data	Project Sponsor / SCR / SYPTE
Greater connectivity between settlements	1	2	3	4	Public transport journey time between key settlements	Public Transport Timetable Information	SYPTE
					Perceptions of stakeholders	Interview	SYPTE
Access to opportunities / key destinations	1	2	3	4	Perceptions of stakeholders	Interview	SYPTE
					Perceived change in accessibility	Employee Survey	Project Sponsor or

Outcome	Objective				Data to be Used	Data Source	Collated / Collected by
							SYPTE (depending on the outcomes of STAF investment)
					Mapped isochrones of before and after connectivity contrasted with deprivation, employment and business growth data from Office of National Statistics (ONS)	TRACC	SYPTE
Enhanced perception of 'place'	1	2	3	4	Perceptions of stakeholders	Interview	Project Sponsor or SYPTE (depending on the outcome of STAF investment)
					Perceptions of those walking and cycling in the area	Pedestrian and Cyclist Intercept Survey	Project Sponsor (larger schemes)
					Perceptions of local residents	Household Travel Survey	SYPTE
						Telephone Survey	SCR
Improved highway journey time reliability (all vehicles)	1	2	3	4	Standard deviation to average journey time	Data sources being investigated	Project Sponsor / SCR
Reduced highway journey times (all vehicles)	1	2	3	4	Average journey times for defined routes	Data sources being investigated	Project Sponsor / SCR
Enhanced traffic flow characteristics	1	2	3	4	Traffic volumes through links	Highway Data	Project Sponsor
					Average speed through links	Highway Data	Project Sponsor
						DfT Congestion Statistics	Project Sponsor

Table 5.2: Impact Metrics – Data Required

Impact	Objective				Data to be Used	Data Collection	Collated / Collected by
Greater levels of physical activity	1	2	3	4	Perceptions amongst pedestrians and cyclists	Pedestrian and Cyclist Intercept Survey	Project Sponsor *(larger schemes)*
	1	2	3	4	Perceptions of stakeholders	Interviews	SYPTE
Physical health and wellbeing benefits	1	2	3	4	Perceptions of stakeholders	Interviews	SYPTE
Mitigate congestion	1	2	3	4	Levels of delay along corridors	Data sources begin investigated	SCR
Improved local air quality	1	2	3	4	Nitrogen dioxide (NO_2) levels	Diffusion Tubes or Modelling *(to be determined)*	Project Sponsor
Reduced deprivation levels and improved social inclusion	1	2	3	4	Proportion of Lower-layer Super Output Areas (LSOAs) within 20% most deprived	Index of Multiple Deprivation (IMD)	SCR
					Perceptions of stakeholders	Interviews	SYPTE
Reduced unemployment	1	2	3	4	Claimant Count numbers	Claimant Count data	SCR
Support realisation of housing developments	1	2	3	4	Perceptions of stakeholders	Interviews	SYPTE
Support realisation of economic developments	1	2	3	4	Perceptions of stakeholders	Interviews	SYPTE
Support retention / growth	1	2	3	4	Perceptions of stakeholders	Interviews	SYPTE
					Number of employees	Business Register and Employment Survey (BRES)	SCR
					Business counts	ONS – UK Business Counts	SCR
Sites more attractive to investors / business	1	2	3	4	Perceptions of stakeholders	Interviews	SYPTE
					Business counts	ONS – UK Business Counts	SCR

6.4 Data Collection Methods

This section provides an overview of the data collection approaches identified in **section 5.2**. As the scheme design develops and the MEP is refined, additional detail will be included, for example, maps to show the spatial coverage of proposed data collection.

Pedestrian and Cyclist Intercept Survey	
Existing or New Data	New data collection.
Data Collection Methodology	Pedestrian and cyclist intercept surveys will be undertaken at key locations to determine changes in the perception of active travel. This survey will seek to understand the characteristics of walking / cycling journeys made, the perception of the walking / cycling facilities, any change in the frequency with which people walk / cycle and perceived changes in health and wellbeing. Survey distribution and content for relevant schemes will be developed in due course. Survey design should be cognisant of existing surveys, which could provide regional / national results to complement the local findings, for example, the Active Lives Survey and ONS Wellbeing Survey (see secondary data sources).
Sample Size Assumptions	The sample size will be dependent on the number of pedestrians / cyclists along each surveyed route.
Frequency of Data Collection / Collation	1-2 years and 3-5 years after opening.
Limitations	Subject to when the Baseline period is defined, there may not be 'before' survey data. A retrospective approach would then need to be used within the survey. An intercept survey will capture the perceptions of those walking and cycling in the area, but would not consider those who do not use the new or improved facilities. This would be captured by a local resident survey with non-users.

Local Resident Survey with Non-Users	
Existing or New Data	New data collection.
Data Collection Methodology	Surveys with local residents will seek to understand the perceptions of non-users and, therefore, complement the pedestrian and cyclist intercept surveys. This survey will seek to understand the characteristics of walking / cycling journeys made, the perception of the walking / cycling facilities and any change in the frequency with which people walk / cycle. Survey content will be developed in due course for the relevant schemes. The approach to survey distribution will need to be identified for each scheme, but options include online, telephone and face-to-face.
Sample Size Assumptions	The sample size will need to be determined following a review of each scheme.
Frequency of Data Collection / Collation	1-2 years and 3-5 years after opening.
Limitations	Subject to when the Baseline period is defined, there may not be 'before' survey data. A retrospective approach would then need to be used within the survey. The survey captures the perceptions of local residents but do not necessarily reflect users of the new infrastructure, which would be captured by the intercept survey.

Pedestrian and Cyclist Counts	
Existing or New Data	The extent of existing count data will need to be reviewed for each scheme, but it is likely new count sites would be required.
Data Collection Methodology	Pedestrian and cyclist counts conducted at key sites via Automatic Cycle Counters (ACC) or manual / video cycle counts. Baseline counts will provide an indication of the 'before' level of walking and cycling. Repeating these counts in the ex-post period will determine the 'after' level of walking and cycling. It is anticipated that counts would be taken between 07:00 and 19:00, in both directions of travel, at each site.
Sample Size Assumptions	For any new count data: one weekday survey data for each site in a neutral month.
Frequency of Data Collection / Collation	Baseline, 1-2 years and 3-5 years after opening.
Limitations	An understanding of the existing Baseline data available is needed. The reliance on 'one day' snapshot results in a vulnerability to conditions on the survey day. Greater reliability would be ascertained from a longer survey period, such as one week or multiple counts.

Cycle Parking Count	
Existing or New Data	New data collection.
Data Collection Methodology	Number of cycles parked in the cycle storage facility on a typical weekday. In locations where there is no cycle parking provision prior to the scheme being implemented, this will need to consider the cycle parking in the vicinity. The cycle parking counts should consider those in the new facility and those in the immediate vicinity.
Sample Size Assumptions	Stations with new or improved cycle parking provision. Counts should be undertaken in a neutral month to mitigate the effect of seasonality.
Frequency of Data Collection / Collation	1-2 years and 3-5 years after opening.
Limitations	Manual process as no reliable automatic counter for Sheffield Stand cycle parking. Depending on the frequency with which counts are undertaken, may be vulnerable to the conditions on the survey day. A note will also need to be made about any 'abandoned' bikes within the provision.

TRACC	
Existing or New Data	No new data collection required – subject to whether SYPTE has a licence. Public transport National Public Transport Access Node (NaPTAN) data and Trafficmaster data is free to use by local authorities. Accessibility mapping would use Urban Paths network data to capture all travel modes.
Data Collection Methodology	TRACC software can be utilised to understand levels of accessibility by generating isochrones to represent journey time bands. This can demonstrate the change in accessibility; distinction would be made between public transport and active travel modes. This can also be used alongside socio-demographic data to strengthen the interpretation and analysis of the findings, for example, to understand the change in accessibility in more deprived areas.
Sample Size Assumptions	Accessibility plots for each of the priority corridors, by mode.
Frequency of Data Collection / Collation	Baseline, 1-2 years and 3-5 years after opening.
Limitations	Provides an understanding of the change in accessibility, but does not necessarily reflect the perceived change in accessibility amongst those travelling in the area.

Rail Station Passenger Survey	
Existing or New Data	New data collection.
Data Collection Methodology	Survey designed to conduct with passengers at rail stations with (i) upgrades at the station and/or (ii) improved access to the station. Surveys in the ex-post period could capture these perceptions and behaviours, but will also need to consider retrospective questions to understand the changes as a result of the improvements (i.e. comparison to Baseline conditions). Survey distribution and content will be developed in due course. It is likely this will complement the findings of Transport Focus Rail Passenger Survey, but will enable scheme and station-specific questions to be included.
Sample Size Assumptions	The sample size will be dependent on the number of passengers at each surveyed station.
Frequency of Data Collection / Collation	1-2 years and 3-5 years after opening.
Limitations	Need for sufficient respondents to complete the survey to provide a large enough sample.

Public Transport Data	
Existing or New Data	Existing data collated by public transport operators.
Data Collection Methodology	Public transport operator data for bus and tram-train services will be important for understanding the following: ▪ Frequency of Services Operating; ▪ Journey Times; ▪ Reliability; ▪ Punctuality; and ▪ Patronage. The requirements for specific public transport services are detailed in the SCR TCF Public Transport Data Request document[9].
Sample Size Assumptions	Specific services are identified in the SCR TCF Public Transport Data Request document.
Frequency of Data Collection / Collation	Baseline, 1-2 years and 3-5 years after opening.
Limitations	The consistency between data is not known at this time. This is important for being able to determine a cumulative understanding across the SCR. Changes to bus services are likely over the evaluation period; maintaining this understanding is imperative for effective evaluation.

Bus Passenger Survey	
Existing or New Data	New data collection.
Data Collection Methodology	Survey designed to conduct with bus passengers to understand their change in attitudes and behaviours. Pertinent aspects will be the change in bus journey time, reliability, frequency, connectivity and overall perception and use of the bus. The absence of a Baseline survey results in the need for a retrospective research approach in the ex-post period to understand how attitudes and behaviours have changed. Survey distribution and content will be developed in due course.
Sample Size Assumptions	The sample size will be dependent on the number of passengers along surveyed routes / stops.
Frequency of Data Collection / Collation	1-2 years and 3-5 years after opening.
Limitations	Need for sufficient respondents to complete the survey to provide a large enough sample.

[9] TCF Monitoring and Evaluation – Public Transport Data Breakdown of Requests for Public Transport Data for TCF Projects

Magna Tram-Train Stop Passenger Survey	
Existing or New Data	New data collection.
Data Collection Methodology	Survey designed to conduct with passengers using the new Magna tram-train stop would seek to explore the following: ▪ Journey purpose (i.e. what journey they are making); ▪ Modal shift (i.e. how they made their journey before the stop opened); and ▪ Created journeys (i.e. are people making trips they would not have made). Survey distribution and content will be developed in due course.
Sample Size Assumptions	The sample size will be dependent on the estimated number of passengers at the new stop.
Frequency of Data Collection / Collation	1-2 years and 3-5 years after opening.
Limitations	Perceptions of those using the new stop captured does not consider those on the wider network and those not travelling by tram-train.

P&R Count Data *(Magna and Parkgate Stops)*	
Existing or New Data	It will need to be reviewed whether this data is readily available from the car park (e.g. barrier entry) or if new data collection is required.
Data Collection Methodology	Count of the vehicles parked at the new P&R facility. Discussions will identify whether this data will be readily available from the car park (e.g. barrier entry) or if this will need to be a manual count. If the data is readily available, then this will provide time-series trends to strengthen the occupancy analysis.
Sample Size Assumptions	To be determined once the data collection methodology is identified.
Frequency of Data Collection / Collation	1-2 years and 3-5 years after opening.
Limitations	Depending on the data collection method, there may be limitations with regards to understanding the profile of usage during the day / week. If data is collected on one day, there may be vulnerability to the conditions on the survey day.

Highways Data	
Existing or New Data	The extent of existing count data will need to be reviewed for each scheme, but it is likely new count sites would be required.
Data Collection Methodology	*Traffic Flows / Speeds* Traffic count data provides an understanding of the traffic flows, speeds and composition along a defined link. Comparisons between the Baseline and ex-post period will identify changes in traffic flows. Following a review of existing ATC coverage, the need for additional data collection will be identified. New data collection is likely to be undertaken for a two-week period during neutral months, but this will need to reviewed for each scheme. *Journey Times* Data will be used to understand average journey times along defined routes within the priority corridors. These routes will be defined in subsequent iterations of the MEP. Comparing the average journey time between the Baseline and the ex-post periods will determine the change in journey time. Trafficmaster data could be used but other data sources are also being investigated.
Sample Size Assumptions	To be determined in due course.
Frequency of Data Collection / Collation	Baseline, 1-2 years and 3-5 years after opening.
Limitations	The Baseline period will be limited to the available data for 2019 owing to the Covid-19 outbreak and associated travel restrictions. Causality is not identified via this method of data collection, so the findings will need to be considered alongside other data sources to aid the attribution evaluation.

Cordon Count Data	
Existing or New Data	Existing data collection.
Data Collection Methodology	The existing cordon count data for selected cities within the SCR will provide an understanding of modal splits to aid the understanding of changes in travel behaviours. It is understood that this is a manual count undertaken annually.
Sample Size Assumptions	A review of the existing approach will enable detail to be added to this section in due course.
Frequency of Data Collection / Collation	Baseline, 1-2 years and 3-5 years after opening.
Limitations	Prior to the use in this evaluation, additional detail on the coverage and extent of this data will need to be sought to understand the limitations.

Employee Survey	
Existing or New Data	New data collection.
Data Collection Methodology	A survey with employees will seek to explore changes in travel attitudes and behaviours as a result of the improvements to sustainable travel. With several employment growth areas, the schemes seek to support improved accessibility to these opportunities, so a survey with employees can gain their perspective. This will provide greater understanding of the changes in commuter behaviour as a result of TCF schemes. Survey distribution and content will be developed in due course.
Sample Size Assumptions	To be determined in due course.
Frequency of Data Collection / Collation	1-2 years and 3-5 years after opening.
Limitations	Willingness of businesses to promote the survey amongst their employees. Stated behaviour change should be considered along observed changes in usage to strengthen the evaluation. This considers employees in the area only and does not include residents in the priority corridor.

Household Travel Survey	
Existing or New Data	Existing data collection.
Data Collection Methodology	The existing SYPTE household travel survey will provide an understanding of travel behaviours. This annual survey will enable time-series trends to be understood; however, it will be important to understand the scope and sampling to understand whether this data will be able to be utilised on a scheme, corridor or programme wide basis.
Sample Size Assumptions	A review of the existing sampling will need to be undertaken to understand any limitations for this monitoring and evaluation activity.
Frequency of Data Collection / Collation	Baseline, 1-2 years and 3-5 years after opening.
Limitations	Use of existing data collection limits the opportunity to include scheme-specific questions.

Depth Interviews	
Existing or New Data	New data collection.
Data Collection Methodology	Depth interviews with stakeholders will provide a wider understanding of the impact of the improvements on the scheme objectives. These discussions provide an opportunity to explore topics in greater detail to understand the perceptions, motivations and decision-making associated with the SCR TCF programme. Topic guides will be prepared in advance of the sessions to provide a semi-structured approach to the discussion. Stakeholders will be identified for each priority corridor. This is likely to include: ▪ Local authorities; ▪ Economic / regeneration agencies; ▪ Key businesses; ▪ Commercial property agents; and ▪ Transport groups (e.g. Sustrans).
Sample Size Assumptions	The number of stakeholder interviews to be conducted will be identified in subsequent iterations of the MEP.
Frequency of Data Collection / Collation	Baseline, 1-2 years and 3-5 years after opening.
Limitations	The availability and willingness of stakeholders to engage. Depth interviews conducted 1-2 years after opening may be “too early” for the longer-term impacts to have been observed so this may be anticipated impacts perceived by the stakeholders. With the Baseline anticipated to be in 2019, these will need to be undertaken retrospectively, but preferably prior to scheme construction.

Secondary Data Sources	
Existing or New Data	Existing data collection, but analysis required to identify pertinent findings for the SCR TCF programme.
Data Collection Methodology	Numerous secondary data sources can support the monitoring and evaluation of various metrics, including: ▪ Active Lives Adult Survey; ▪ Transport Focus Tram Passenger Survey; ▪ ORR Estimates of Station Usage (i.e. Entries and Exits data); ▪ STATS19 data; ▪ IMD; ▪ UK Business Counts; ▪ BRES; ▪ DfT Congestion Statistics; and ▪ Claimant Count data. Sheffield City Council has a number of diffusion tubes across the city[10], which could provide an indication of the change in air quality. The coverage in the SCR will also need to be explored to determine if there is a need for additional diffusion tubes.
Sample Size Assumptions	n/a
Frequency of Data Collection / Collation	Baseline, 1-2 years and 3-5 years after opening.
Limitations	The ongoing availability of secondary data sources. Changes in the methodology utilised for secondary data sources. The coverage of secondary data sources may constrain the ability to evaluate at a local, priority corridor or district level.

6.5 Summary

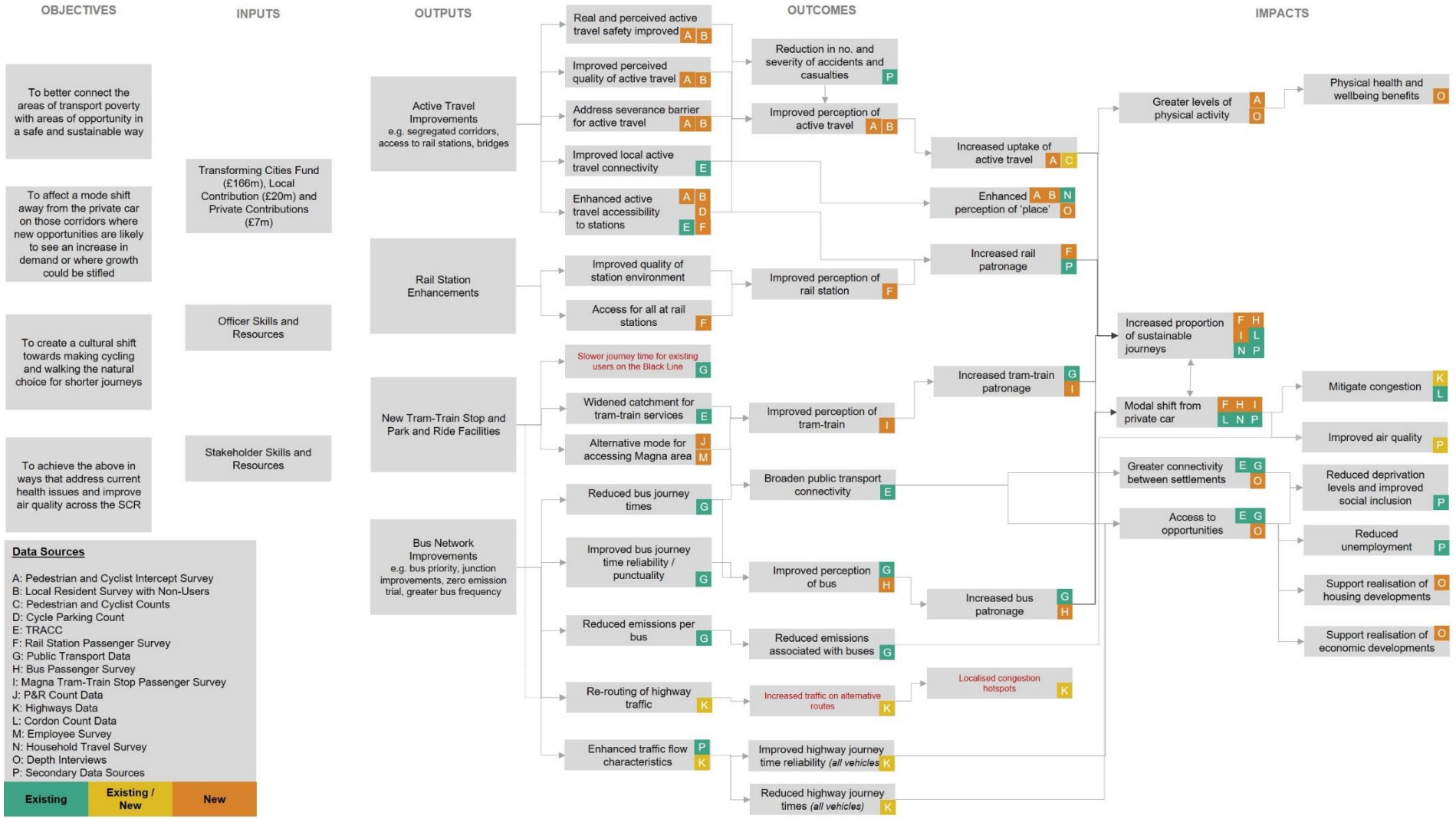
This section has identified the data requirements and proposed data sources for the impact evaluation. As the scheme design develops, this will be developed and refined further to ensure the approach is effective and proportionate.

A summary of the proposed data sources is provided in **Figure 5.2**, with these colour-coded as follows:

- **Existing Data Sources:** Data source is readily available.
- **New Data Sources**: New data collection is required.
- **Existing / New Data Sources:** There is some existing data, but this may need to be supplemented with additional data e.g. ATCs.

[10] https://www.sheffield.gov.uk/home/pollution-nuisance/air-quality

Figure 5.2: SCR TCF Programme Logic Map with Data Sources



7. Economic Evaluation

7.1 Introduction

The economic evaluation considers whether the scheme benefits justified the costs and, therefore, reviews the economic appraisal previously undertaken. The Benefit to Cost Ratio (BCR) indicates how much benefit is obtained from one unit of cost, with a BCR greater than one demonstrating benefits outweigh the costs. This informs the initial Value for Money (VfM) category, as shown in the DfT Value for Money Framework (2017); for example, a BCR between 2 and 4 is considered High VfM.

7.2 Methodology

The business case will detail the anticipated VfM – and approach to economic appraisal - for the SCR TCF schemes, which can inform the overall SCR TCF programme VfM assessment. This section will, therefore, be populated in due course once the business case has been advanced. However, this is expected to build upon the findings of the process and impact evaluation, particularly with costs and observed changes informing the expected monetised benefits. This will enable the VfM assessment to be updated, alongside non-monetised impacts and the understanding of any unintended effects of the schemes (and programme) following the monitoring and evaluation activity.

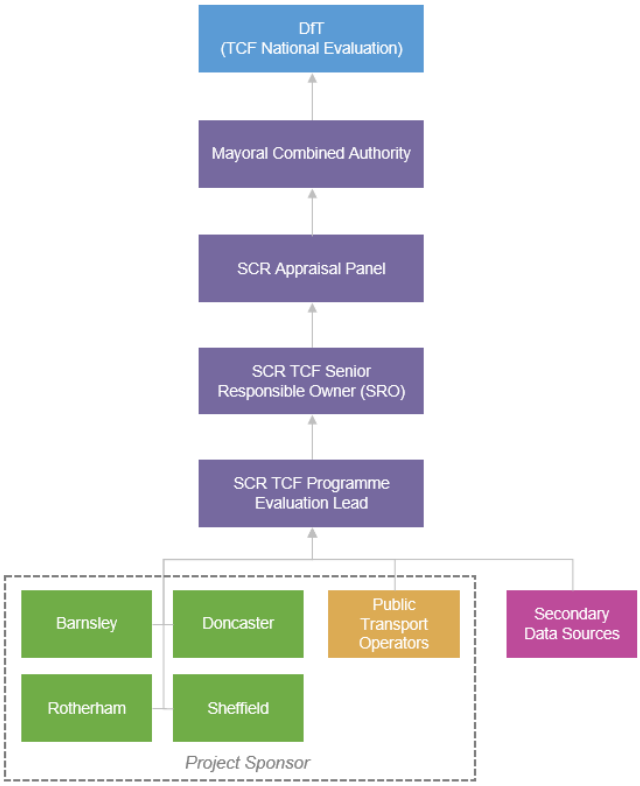
8. Resourcing and Governance

8.1 Governance

A successful monitoring and evaluation programme is reliant on effective management of people and data to ensure the collection, analysis and reporting of findings is undertaken in a timely and robust manner.

The MEP is owned by the SCR Executive Team, but specific monitoring and evaluation activity will be delegated to suitably skilled individuals. Given the scale of the SCR TCF programme, this will require coordination by a nominated individual to ensure all data is being collected and that this is being done consistently.

Figure 7.1: M&E Governance



The SOBC outlines the proposed governance for the SCR TCF programme and specific responsibility for monitoring and evaluation is also expected to be identified. At this stage, it is expected that the following will have a key role in the delivery of the MEP:

- **National Evaluation Team:** The National Evaluation Team will review and approve this MEP to ensure the approach is consistent with the national TCF evaluation. The SCR TCF programme team will support the National Evaluation Team with the timely provision of information.
- **Senior Responsible Owner (SRO) (Mark Lynam)**: Mark is the Director of Transport, Housing and Infrastructure at the SCR. He is responsible to the Transport Executive Board (TEB) and the MCA. The SRO, and/or their nominated Officer(s), are also responsible for reporting progress to DfT. His role on the SCR TCF Project is the successful delivery of the project and its outcomes. With regards to monitoring and evaluation, Mark will oversee the approach and overall reporting.
- **Programme Manager (PM)**: The Programme Manager will be responsible for the day-to-day management of the project, including the monitoring and evaluation activity. He / she will provide updates and coordinate with the Project Sponsors. It is anticipated that they will delegate the responsibility for discrete tasks identified in this MEP to specific staff members. The nominated individual for this role needs to be identified.

8.2 Resources

The scheme cost breakdown does not specify an allocation for monitoring and evaluation activity. Once this is identified at a scheme level as the business cases are progressed, the proposed evaluation approach can be reviewed to ensure it is deliverable within the available budget. This will also need to be considered alongside the requirements of the National Evaluation Team and the extent of reporting required.

Table 7.1: SCR TCF Monitoring and Evaluation Costing

Deliverable	Data Collection	Data Analysis & Reporting	Project Management	Total
Baseline Report	n/a	£50k - £90k[#]	£TBC	**£50k – £90k+**
1-2 Year Post Opening Report *(incl. process evaluation)*	£	£	£	**£**
3-5 Year Post Opening Report	£	£	£	**£**
Ad-hoc Requests from the National Evaluation Team	£	£	£	**£**

[#] Indicative cost range estimate, subject to review following the production of a final MEP.

Following a review of internal resources, SCR will confirm the need for a dedicated Evaluation resource for the SCR TCF programme, as well as the extent to which external support will need to be procured.

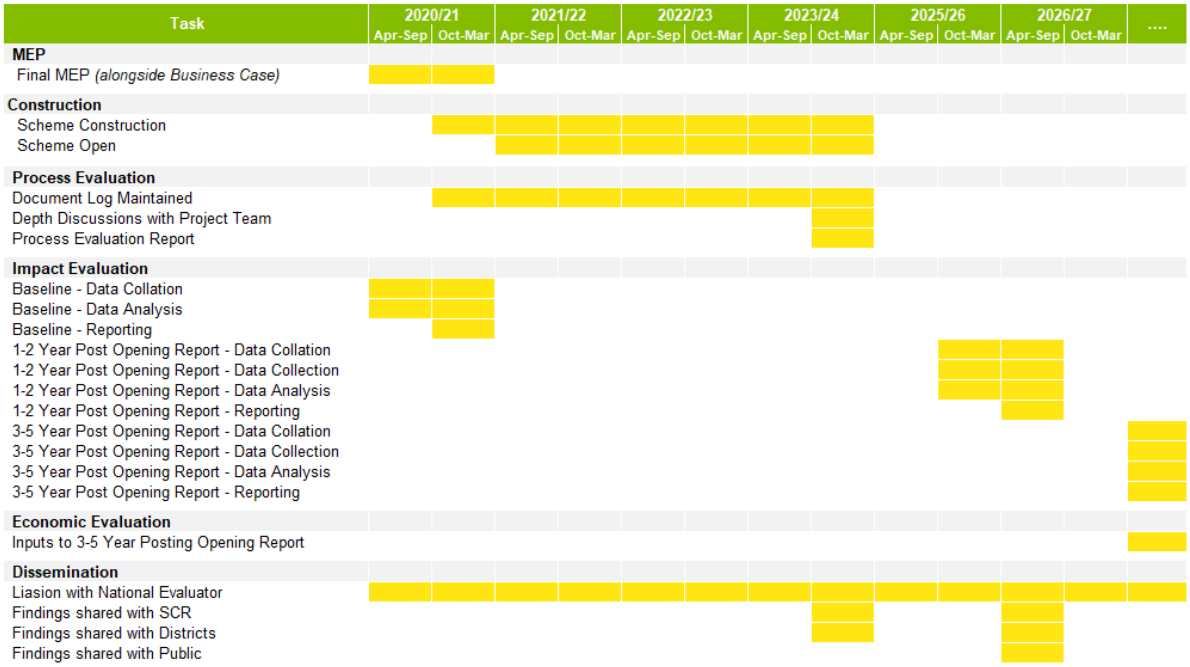
Once further detail is known regarding the existing data sources, particularly any sharing of data between authorities and external support, this MEP will be updated to detail the data protection agreements. The MEP proposes primary research activity and this will be undertaken in line with the General Data Protection Regulation (GDPR).

8.3 Delivery Plan

Ensuring the necessary data is collected at the appropriate time from the required people / organisations is essential when developing a high-quality monitoring and evaluation programme. **Sections 4** and **5** identified the approach to the process and impact evaluation with a data source identified for each metric.

As shown in **Figure 7.2**, an initial monitoring and evaluation schedule has been developed. This will be developed further as the schemes are finalised and the monitoring and evaluation approach is agreed.

Figure 7.2: Monitoring and Evaluation Schedule



8.4 Risks

An initial Risk Register for the monitoring and evaluation activity identified in this MEP has been produced (**Table 7.2**). This will be updated as and when risks are identified and regularly reviewed throughout the evaluation activity periods. In addition to these risks, it is also imperative to be mindful of the potential for data synergy with other projects and activity in the SCR.

8.5 Dissemination of Findings

The ROAMEF cycle highlights the importance of Feedback within the project lifecycle and the dissemination of findings should also be considered when prepared a MEP. Sharing findings, including lessons learnt and evidence, amongst partners can aid the design and delivery of future schemes, inform future decision-making and improve the efficiency and effectiveness of future investment. This could benefit those delivering schemes programmed to occur later in the TCF programme, as well as a number of other stakeholders.

National Evaluation Team

Liaison with the National Evaluation Team will be critical and once the national guidance and requirements have been detailed, this will be reflected in the SCR TCF monitoring and evaluation activity and schedule to ensure this is provided in a timely manner and in a suitable format.

Sheffield City Region

The findings will be shared with the SCR to provide an update on this transformational project within the MCA area. This may also include dissemination of specific findings to particular teams / boards, for example, the Active Travel Commissioner and Active Travel Advisory Board.

Districts

Whilst the districts will contribute to the monitoring and evaluation activity, it will also be important to disseminate the SCR TCF findings back to the districts. This can provide evidence for the progression of future schemes and highlight opportunities to enhance the provision within their district.

Public

The SCR TCF programme seeks to encourage an uptake of sustainable modes. Sharing the results of the programme can help to encourage more people to change their behaviours as well as re-enforcing positive behaviour changes already undertaken.

Table 7.2: SCR TCF Monitoring and Evaluation Risk Register

Risk ID	Risk Description	Pre-Mitigation Risk Category	Risk Owner	Mitigation Measure	Post-Mitigation Risk Category
1	List of TCF schemes not finalised – potential for reserve schemes to be included.	Medium	SCR	Iteration of the MEP once scheme design is complete.	Low
2	Monitoring data not collected to defined specifications.	Medium	SCR / Partners	Adopt rigorous quality assurance procedures throughout data collection.	Low
3	Wider investment influencing transport movements within the priority corridors.	Medium	SCR	Monitor contextual factors throughout the ex-ante, construction and post opening periods. Monitoring undertaken on a local corridor level, as well as cumulatively for the SCR.	Low
4	Attribution of changes in outcomes and impacts to the schemes / programme can be particularly challenging.	Medium	SCR / National Evaluation Team	Application of the 'before' and 'after' comparisons alongside the ToC to understand causation. Preparation of a Baseline Report.	Low
5	Secondary data sources may not be available in the ex-post periods.	Medium	SCR	A mixed-methods approach to the evaluation provides helps to mitigate this by not being solely reliant on one data source. Identification of alternative data sources.	Low
6	The methodology for secondary data sources may change resulting in them not being a comparable data source.	Medium	SCR	Maintaining an understanding of the changes in secondary data sources helps to identify the effect this may have on monitoring which in turn can enable a mitigation measure to be identified (if possible). Identification of alternative data sources.	Low
7	The coverage of existing data sources in the SCR is not known.	Medium	SCR / Partners	This understanding should be sought and utilised to inform subsequent iterations of the MEP.	Low
8	The availability of resources to manage and undertake the monitoring and evaluation activity necessary, particularly with the scale of the SCR TCF programme.	High	SCR / Partners	The preparation of the MEP helps to define the approach and level of resource that is required which can support decision-making at SCR	Medium

Risk ID	Risk Description	Pre-Mitigation Risk Category	Risk Owner	Mitigation Measure	Post-Mitigation Risk Category
9	The approach does not provide the data needed (or in the required format) by the National Evaluation Team for the TCF.	Medium	SCR / National Evaluation Team	Liaison with the National Evaluation Team, including the MEP, will help to ensure the approach fulfils the requirements of SCR and DfT.	Low
10	Monitoring data is not collected at the 'right' time.	Medium	SCR / Partners	Development of a monitoring and evaluation schedule to define when data collection / collation and analysis should occur.	Low
11	The impact of Covid-19 on the monitoring and evaluation activity, including timescales, must be considered.	High	SCR / National Evaluation Team	Ongoing review of the effect of Covid-19 on travel behaviours and attitudes.	Medium
12	Available budget for monitoring and evaluation is unknown.	High	SCR / Partners	Isolate the assumed monitoring and evaluation costs from the programme budget. Preparation of an itemised budget of monitoring and evaluation activity.	Low

9. MEP Next Steps

Owing to the stage of development of component schemes and timescales for completion, this MEP was prepared with a limited understanding of the schemes, so it was recognised this would be an initial MEP to be developed in due course. The recommended next steps to develop this MEP are summarised in **Table 8.1**. Whilst the tasks are numbered, they do not necessarily need to be undertaken sequentially and it may be possible to develop some tasks concurrently.

Table 8.1: MEP Next Steps

Task	Description
Scheme Understanding	
1	Review and refine logic maps as the schemes are developed to ensure they reflect the anticipated outputs, outcomes and impacts. This should include considering the consequences of any 'over programming' schemes in the committed programme.
2	Once the final list of schemes is confirmed, a study area for the evaluation should be defined.
Process Evaluation	
3	Establish a Document Log to ensure the pertinent scheme documentation is shared with the evaluation team.
4	Identify the specific roles within the project team (not necessarily named individuals) for whom it will be important to engage with.
Impact Evaluation	
5	Detailed review of existing data sources for their coverage and content, as well as an understanding of how this data can be accessed.
6	Identify a data owner for each data source, for each scheme.
7	Complete the sample size assumptions for each data source.
8	Updated methodology for each data source (e.g. identify the sites for Pedestrian and Cyclist Counts and outline survey content for the Pedestrian and Cyclist Intercept Survey).
9	Prepare a Baseline Report detailing the conditions and characteristics prior to the scheme construction.
10	Confirm and define the Baseline and ex-post periods.
Economic Evaluation	
11	Review and update the approach as the schemes are progressed through business case stages and the economic appraisal mechanisms are known.
MEP	
12	Updates to the MEP in line with those identified for the process, impact and economic evaluation.
13	Ongoing liaison with the National Evaluation Team to ensure that there is an understanding of the data required (including the format).
14	Prepare an itemised budget for the monitoring and evaluation activity.
15	Develop the schedule for the monitoring and evaluation activity.
16	Identify resource to manage the monitoring and evaluation activity to ensure it is undertaken.
17	Update the risk register for monitoring and evaluation activity to reflect the latest risks and opportunities, as well as the indictive timescale and likelihood / impact of them occurring.

Task	Description
18	Identify the mechanisms for data access, where required.
19	Agreement regarding the frequency and content of reporting.

10. Annex A: Scheme Summary

Ref	Scheme	Mode
AMID Corridor		
12	Segregated Cycle Route along A6178 *A fully segregated route along the A6178 between Meadowhall, Tinsley and Rotherham.*	Active Travel
18	Waverley Advanced Manufacturing Park (AMP) to Town Centre via Brinsworth and Tinsley *A fully segregated route along the A631 Bawtry Road between Brinsworth and Tinsley / Meadowhall.*	
84	Bawtry Road (Brinsworth to Tinsley) Waverley AMP Active Travel Scheme *Development of core active travel route linking Meadowhall with Scheme 18 proposals on A631 Bawtry Road and Sheffield Road (envisaged to consist of segregated cycle tracks). Likely to include feeder routes from adjacent residential areas, notably Tinsley.*	
322	AMID via Darnall *Development of core route connecting city centre to AMP Corridor, including spur to Olympic Legacy Park. Includes feeder routes from adjacent residential areas. Measures likely to include traffic calming and/or separating cyclists from it.*	Active Travel and Bus
68 and 81	Sheffield City Centre Cycling and Cross City Bus *A city centre bus priority route to enable cross city services and better bus penetration in the city centre. Development of a core cycle route for cross-city movements between Nether Edge, Kelham-Burngreave and AMID-Darnall Corridors. Measures to calm traffic and/or separate cyclists from it.*	
372	Sheffield to Burngreave via Kelham Island and Pitsmoor *Revision of one-way system in Neepsend to provide prioritised route through area for buses, separate from motorised traffic. Includes supporting active travel proposals and complementary works to enhance stops and pedestrian access to them.*	
370	Abbeydale Road / Ecclesall Road Bus Corridors *Implementation of the bus lane review recommendations and additional bus priority measures.*	Bus
371	Sheffield to AMID Bus Corridor via Attercliffe and Darnall *Bus priority measures on X1 and 52 Corridor through Attercliffe and Darnall, likely to include restrictions on access to bus route by through traffic, with facilitating works on diversion routes, as well as better bus stops and routes to them. Bus priority around Meadowhall Interchange also included.*	
91	Zero Emissions Bus Trial *A trial of electric buses on one of the TCF Priority Corridors.*	
237	Magna Tram-Train Stop and Park & Ride (P&R) *A new stop on the Tram-Train Line at Magna with associated P&R facility.*	Tram-Train
Dearne Valley Corridor		
157	A61 Active Travel - Barnsley - Smithies – Royston *Provision of a safe and attractive walking and cycling route to the town centre (circa 5km). Likely to use quiet streets, new crossings and short sections of cycle path.*	Active Travel
380	Barnsley Town Centre Rail Bridge *Contribution to bridge over railway in town centre to reduce severance associated with the loss of the Jumble Lane rail crossing. Key link from the station to the walking triangle.*	
173	Bolton Station Access *Provision of improved walking and cycling route to the station.*	
181	Goldthorpe Station Access *No description available.*	

Ref	Scheme	Mode
184	Thurnscoe Station Access *No description available.*	
165	Doncaster Road, Goldthorpe *A 3m wide, 2.1km cycleway on Doncaster Road in Goldthorpe.*	
169	Stairfoot – Ardsley – Goldthorpe *A 3m wide, 6.5km shared-use cycleway along the A635.*	
335	Balby – Kirk Sandall *Part of Local Cycling Walking Infrastructure Plan (LCWIP) cycling route linking Balby to Kirk Sandall through the town centre. New cycle route and improvement work along A630 from Balby to Clay Lane Roundabout. Scheme to include resurfacing, new crossing facilities, junction improvements, traffic calming measures and signage.*	
341	Edlington Walking *Provision of safe and attractive walking and cycle route to local shops and facilities within Edlington.*	
104	Mexborough Gateway to Wath Manvers *Provision of a safe and attractive walking and cycling route to the station (improvements to the station included as Scheme 179), including reduced severance through the narrowing of sections of a dual carriageway to single carriageway.*	
177	Conisborough Station Access *No description available.*	
38	Manvers Way to Wath *Provision of a safe, direct and attractive walking and cycling route (approximately 0.5km) between Manvers Way and Wath Town Centre.*	
11	Footbridge from Forge Island to Riverside *Replacement of the existing tunnel footbridge between Forge Island and Riverside Corporation Street.*	
1	Frederick Street East-West Cycle Route *Measures to make the cycle route more legible along Frederick Street and Nottingham Street, including widening of the existing footway.*	
227	A61 Wakefield Road Bus Corridor *Widening Old Mill Lane to five lanes including a bus lane. Junction improvements at Carlton Road / Smithies Lane, Laithes Lane and the A61 gyratory. A bus lane at Scorah's Roundabout.*	Bus
229	Bus Rapid Transit (BRT) (N) *Improvements along the north and south Dearne Valley routes between Barnsley and Doncaster (the A635 and A633) including major improvements at the Alhambra and Stairfoot Roundabouts.*	
269	A630 Bus Improvements *Widening of the existing carriageway between the traffic signals at Warmsworth and the A1(M) junction to provide improved bus priority or a similar alternative along the A630 Corridor in Doncaster.*	
230	Parkgate Link Road *A new access into the Parkgate Shopping Centre from the A6123 Aldwarke Lane.*	
29	Taylors Lane Roundabout *Widening the southern entry and exit to the five-arm roundabout to improve capacity.*	
55	Doncaster Road, Dalton *Widening of the A630 inbound at Dalton to help ease congestion and improve bus priority.*	
233	Parkgate P&R	Tram-Train

Ref	Scheme	Mode
	A 300 space P&R facility for the tram-train stop at Parkgate.	
180	Bolton Station *Improvements to the station including improved signage and information, accessible bench seating, directional signage, Closed Circuit Television (CCTV) and lighting enhancements.*	Rail
181	Goldthorpe Station *Improvements to the station including CCTV, cycle storage, directional signage, platform signage, lighting enhancement and contrasting bands on columns.*	
184	Thurnscoe Station *Improvements to the station including stair/step enhancements, directional signage, CCTV, reduce the large gap at the side of shelters, platform signage and lighting enhancements.*	
224	Wombwell Station *Improvements to the station including improved access ramps, improved access lifts, new ticket office, car park enhancement, platform edge tactile paving, cycle storage, public Wi-Fi, street signage, accessible bench seating, lighting enhancements and CCTV.*	
204	Barnsley Station *Improvements to the station including street directional signage, CCTV, platform signage and lighting enhancement.*	
179	Mexborough Station *Improvements to the station including accessibility enhancements, cycle storage improvements, public Wi-Fi access, street directional signage, taxi rank / drop-off enhancement, platform access improvements and "kiss and ride" drop-off.*	
177	Conisborough Station *Improvements to the station including shelter improvements, lighting enhancements, dual-height hand railing, platform access improvements, street directional signage, CCTV enhancements and crash barrier.*	
River Don Corridor		
182	Hatfield and Stainforth Station Access *Provision of a safe and attractive walking and cycling route to the station.*	Active Travel
183	Kirk Sandall Station Access *Provision of a safe and attractive walking and cycling route to the station.*	
375	Thorne Station Access (North and South) *Provision of a safe and attractive walking and cycling route to the station.*	
342	Bentley Walking and Cycling *Provision of a safe and attractive walking and cycling route to local shops and facilities within Bentley, including the rail station.*	
343	Adwick Walking and Cycling *Provision of a safe and attractive walking and cycling route to local shops and facilities within Adwick, including the rail station.*	
129	Doncaster Station to College *Provision of an improved walking and cycling link between Doncaster Train Station and Doncaster College Hub.*	
337	North Bridge Road to Bennethorpe Cycle Connector *Provision of a safe and attractive walking and cycling route across the town centre, including improved link to cross the A630 Inner Ring Road between the North Bridge and High Street.*	
252	iPort Bridge	

Ref	Scheme	Mode
	A new sustainable transport bridge into the iPort from Rossington providing an active travel link into the employment site.	
344	Armthorpe *Providing connectivity to Catesby employment hub and retail and community hub from residential areas.*	
115	Town Moor to Thorne Road *Improved walking and cycling facility on the A18 Corridor.*	
150	West Moor Link / A18 Walking and Cycling *Provide and enhance active travel facilities on existing National Productivity Investment Fund (NPIF) / Local Growth Fund (LGF) project.*	
376	Thorne and Moorends Employment Connector Cycle Routes *Walking and cycling improvements to increase connectivity to key local destinations, services and employment and increase active travel opportunities.*	
111	Cleveland Street Cycling, Wood Street / Cleveland Street *Complementing existing Doncaster Metropolitan Borough Council (DMBC) and LGF funded town centre schemes with provision of improvements in the town centre which are planned to include: bus priority and active travel measures on Wood Street and Cleveland Street, active travel measures on Duke Street and St Sepulchre Gate.*	Active Travel and Bus
8	A631 Rotherham to Maltby Bus Corridor *Bus lane and priority at Hellaby.*	Bus
99	M18 Junction 3 *Improvements to circulatory carriageway on the motorway junction to aid flow and relieve congestion.*	
182	Hatfield and Stainforth Station *Improvements at the station.*	Rail
183	Kirk Sandall Station *Improvements at the station.*	
206	Bentley Station *Improvements to the station including CCTV enhancements, cycle storage improvements, improved signage and information, public Wi-Fi access, accessible bench seating, platform access improvements, street directional signage and lighting enhancements.*	
176	Adwick Station *Improvements to the station including lighting enhancements, cycle storage improvements, improved signage and information, public Wi-Fi access, platform access improvements and street directional signage.*	

N.B. Scheme reference numbers link to those in the SOBC Appendix D.

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