

## TRANSPORT EXECUTIVE BOARD

Date: 30<sup>th</sup> November 2017

Venue: Town Hall, Sheffield

Time: 3:00 – 5:00pm

**Sheffield**  
**City Region**

COMBINED  
AUTHORITY

### AGENDA

| Items Title  | Method | Speaker             |
|--|--------|---------------------|
| <b>Introduction</b>  |        |                     |
| 1. Welcome and Apologies                                       | Verbal | Chair               |
| 2. Minutes & Actions of the Previous Meeting & Matters Arising | Paper  | Chair               |
| 3. Declarations of Interest                                    | Verbal | All                 |
| 4. Urgent items / Announcements                                | Verbal | All                 |
| <b>Discussion items</b>  |        |                     |
| 5. HS2 update – Growth Strategy and Parkway Station            | Verbal | Mark Lynam, SCR     |
| 6. SOBC submission for Mass Transit Renewal                    | Paper  | Ben Gilligan, SYPTE |
| 7. SCR Transport Strategy Renewal Consultation                 | Paper  | David Budd, SCR     |
| 8. TfN issues – NPR and Strategic Transport Plan               | Verbal | David Budd, SCR     |
| <b>Actions &amp; Forward Planning</b>                          |        |                     |
| 9. Future TEB attendance                                       | Verbal | Chair               |
| 10. Agree actions & Summary for Resolution Log                 | Verbal | Chair               |
| 11. AOB  | Verbal | All                 |

**DATE OF NEXT MEETING – 21<sup>st</sup> December 2017**

## **TRANSPORT EXECUTIVE BOARD**

**30<sup>th</sup> NOVEMBER 2017**

### **SCR MASS TRANSIT – STRATEGIC OUTLINE BUSINESS CASE (SOBC)**

#### **Purpose of Report**

To update TEB on progress on the Strategic Outline Business Case (SOBC) for the renewal of the Supertram network from 2024. To seek endorsement (as a basis for future work and priorities in the Region), for its subsequent submission to the Department for Transport (DfT).

#### **Thematic Priority**

The Supertram network in Sheffield is a key element of the overall public transport provision across the City Region. The Transport Strategy Refresh underpins the six thematic priorities of the Region's Strategic Economic Plan and this particular element of it will deliver thematic priority 6: securing investment in infrastructure, as well as supporting the delivery of a fully integrated multi-modal public transport network, which is one of the strategic priorities of the emerging Inclusive Industrial Strategy.

#### **Freedom of Information**

This paper is not exempt under the Freedom of Information Act 2000.

#### **Recommendations**

TEB should note the progress on the SOBC and be aware of the current options that have been evaluated and endorse submission to Department for Transport.

## **1. Introduction**

- 1.1 The Strategic need for work on the future of Supertram and its possible continuing operation, was accepted by South Yorkshire Passenger Transport Executive's (SYPTe) Executive Board (9 May 2016) and endorsed by the Combined Authority (CA) on 20 June 2016. This work enabled the Region to submit a successful bid to DfT's Local Large Major Fund (LLMF) which provided a grant of £735,000 towards the cost of developing the Outline Business Case (OBC).
- 1.2 The bid committed the Region to the submission of an OBC, including a webTAG complaint appraisal, to DfT in 2018/19. A key step in the development of the OBC is the approval of the SOBC.
- 1.3 To comply with the grant requirements and because of the scale of the project, the Region decided to follow the DfT process for Major schemes as set out in their guide 'The Transport Business Cases, January 2013'. This process has three main decision points:

- **SOBC** - Agreement of the need to progress and on the Options to be pursued in more detail.
- **Outline Business Case** – This contains a final recommendation on a single Option and would form the basis of any bid to DfT for funding. (Forecast to be complete by end of 2018/19)
- **Full Business Case** – Subject to the outcome of the OBC, this document confirms the case made based on tender return prices, and would release any DfT funding awarded (2021).

In line with Treasury Guidance, the SOBC is arranged in the 5-case format (Strategic, Economic, Financial, Commercial and Management cases).

## 2. Proposal and justification

2.1 The SOBC looks at 6 Options ranging from Closure to Replacement with Bus Rapid Transit (BRT) or similar. These were chosen to assess the differing impact of service, scale of network and reliability.

- Option 1 – Close the network in 2024 and make good.
- Option 2 – Truncate the current network. Remaining network to have same level of service as now
- Option 3 – Retain network but reduce level of service provided
- Option 4 – Delay expenditure accepting increasing levels of unreliability
- Option 5 – Renew System on a like for like basis around 2024
- Option 6 – Replace with BRT

### 2.2 Summary of Options

| Option No. | Capital Cost £M <sup>(1)</sup> | PVC 2019-2054 <sup>(2)</sup> | Impact on Objectives <sup>(3)</sup> | Scale of Benefit <sup>(4)</sup> | BCR <sup>(5)</sup> | Comments  |
|------------|--------------------------------|------------------------------|-------------------------------------|---------------------------------|--------------------|---|
| 1          | £138M                          | £197M                        | Large Negative                      | Negative                        | -                  | Some structures retained for other uses.                              |
| 2          | £164M                          | £259M                        | Negative                            | £252M                           | 4                  | Does not deliver agreed objectives                                    |
| 3          | £50M                           | £230M                        | Negative                            | £79M                            | 2.4                | Reduced costs in 2024 balanced by additional costs in following years |
| 4          | £179M                          | £272M                        | Positive                            |                                 | <sup>(5)</sup>     | To be do something Option 1   |
| 5          | £204M                          | £251M                        | Large Positive                      | £304M                           | 5.6                | To be do something Option 2   |
| 6          | £177M                          | £258M                        | Positive                            |                                 | <sup>(5)</sup>     | To be Low Cost alternative  |

Notes: <sup>(1)</sup> Estimated costs around 2024 at 2016 prices, includes risk but not optimism bias

<sup>(2)</sup> Present value of costs for public sector over 30 years from 2024 including 66% optimism bias at 2010 prices, no real terms inflation (as required by webTAG guidance)

<sup>(3)</sup> Summary of how Option impacts on delivery of objectives

<sup>(4)</sup> Benefits calculated using old model, remaining benefits will be calculated when the updated Transport model is completed next year. For this reason the benefits shown above therefore only relate to public transport user time, fare, indirect tax and vehicle operating cost impacts, they do not include highway and other benefits

<sup>(5)</sup> Based on use of old model, Options 4 and 6 not yet modelled. For Options to be progressed, BCRs will be calculated using outputs from the updated transport model SCRTM1 when complete in July

The recommendation of the SOBC is that Options 1, 4, 5 and 6 be investigated in more detail in the OBC, as Options 2 and 3 will deliver a significant disbenefit to the Region and will be unlikely to be eligible for funding from DfT.

- 2.3 The full SOBC is attached as **Appendix 1**. This contains an Executive Summary as Section 1.
- 2.4 TEB are asked to endorse the SOBC as the starting point for more detailed work on the OBC during 2018, noting the Financial and Legal implications outlined in Section 4 below. In particular, TEB are asked to note the selection of the four of the six Options to be investigated further.
- 2.5 Subject to endorsement, work will then start on the OBC. This will initially be focused on appraisal of the four Options during the first half of the 2018 calendar year and the aim is to complete the OBC by the end of the 2018/19 financial year. An early part of this will be public consultation on the options. More details of the next steps are given in Section 10 of the SOBC.

### **3. Consideration of alternative approaches**

- 3.1 The nature of the options appraisal and the stage of the project work, means that there are currently no alternative options to submitting the SOBC for central government funding to be sought. As outlined above, there has been detailed selection of options for further analysis in the OBC. This is a necessary process in order to access funding from DfT.

### **4. Implications**

#### **4.1 Financial**

SCR and SYPTE are committed to the completion of the OBC, or return of the DfT Grant of £735,000. Provision for the required match funding has been made in SYPTE's draft 2018/19 capital budget.

If the OBC is approved by DfT and the scheme gains Programme Entry, the Region will need to fund:

- Production of Full Business Case (≈ £2M)
- Local Contribution (up to 25% of Estimated Final Cost)

If the Region does not submit the OBC, or it is not approved for funding by DfT, then the Region will need to fund the closure costs of the network (≈£138M excluding any commuted sums).

#### **4.2 Legal**

SYPTE has a duty to ensure the network is available for the concession holder's use until March 2024. After this there is a legal requirement to re-instate the highway if the system closes.

#### **4.3 Risk Management**

The Risk Management process for the project is outlined in Section 9.8 of the SOBC.

#### **4.4 Equality, Diversity and Social Inclusion**

An Equality Impact Assessment will be carried out as part of the next stage of the Project Development.

## 5. Communications

5.1 At this stage, communications are focused on engaging with key stakeholders. A full communications plan will be developed as part of the OBC.

## 6. Appendices/Annexes

6.1 Strategic Outline Business Case – Appendix 1

|                      |  |
|----------------------|--|
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| Telephone            | 0114 221 1208  |

Background papers used in the preparation of this report are available for inspection at: 11 Broad Street West, Sheffield S1 2BQ

Other sources and references:



## Sheffield City Region Mass Transit Phase 1 Strategic Outline Business Case

(SCR MT SOBC)

**Status:** Approved by SRO – *This is not a live document and therefore only reflects the position at the time of production*  
**Version:** V1.17  
**Date:** 17/11/2017

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## **Executive Summary**

The Supertram System was built in the early 1990s and is currently operated by Stagecoach (SYSL) under a concession agreement with SYPTE. The need to consider investment in the system now is driven by:

- Significant elements of the system are reaching the end of their economic life
- The concession agreement comes to an end in 2024

While SYSL are currently responsible for the maintenance of the system, life cycle renewals are the responsibility of South Yorkshire Passenger Transport Executive (SYPTE) and the Combined Authority (CA). All Options for the future of the tram system have significant cost implications. Some, particularly closure, have significant adverse impacts on residents and the Region's ability to deliver its economic and social goals. For these reasons SYPTE and the Sheffield City Region (SCR) agreed to use DfT's process for major schemes to come to a decision regarding the future of the tram system.

This process has three main decision points:

- **Strategic Outline Business Case (SOBC)** – This document, summarised below.
- **Outline Business Case (OBC)** – This contains a final recommendation on a single Option and would form the basis of any bid to DfT for funding.(Forecast to be complete by end of 2018/19)
- **Final Business Case (FBC)** – Subject to the outcome of the OBC, this document confirms the case made based on tender return prices, and would release any DfT funding awarded.(2021)

### **Summary of Strategic Outline Business Case (SOBC)**

The start of the SOBC summarises the purpose of the document, provides a history of the system and the background to its current position (Section 3). This Section also contains details of the current condition of the asset and SYPTE/Combined Authority obligations.

Section 4 outlines the work carried out to date on the case for this scheme.

Following this, and in line with Treasury guidance, the SOBC is arranged in the 5 Case format:

- **Strategic Case** (Section 5) - This confirms the project's fit with local and national policy and the objectives set for the Project and Project Team. It also outlines the options for the network's future considered to date, and their fit with the agreed objectives.

- **Economic Case** (Section 6) – This confirms there is potential for this project to deliver a high value for money scheme (BCR>4) and explains which Options will be taken forward to the next stage (OBC).
- **Financial Case** (Section 7) – This looks at costs and funding.
- **Commercial Case and Management Case** (Sections 8 & 9) – These two sections start to look at how the project will be delivered.

Six Options for the future of the network have been investigated. These were chosen to determine the impact of changes to the extent of the network, level of service provision as well as costs. These Options were:

- Option 1 – Close the network in 2024
- Option 2 – Truncate the current network. Remaining network to have same level of service as now
- Option 3 – Retain network but reduce level of service provided
- Option 4 – Delay expenditure accepting increasing levels of unreliability
- Option 5 – Renew System on a like for like basis around 2024
- Option 6 – Replace with electrically Bus Rapid Transit (BRT)

### **Outcome of Options Appraisal Report (OAR)**

| SUMMARY OF OPTIONS |                                |                              |                                     |                                 |                    |   |
|--------------------|--------------------------------|------------------------------|-------------------------------------|---------------------------------|--------------------|---|
| Option No.         | Capital Cost £M <sup>(1)</sup> | PVC 2019-2054 <sup>(2)</sup> | Impact on Objectives <sup>(3)</sup> | Scale of Benefit <sup>(4)</sup> | BCR <sup>(5)</sup> | Comments  |
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- <sup>(5)</sup> Based on use of old model, Options 4 and 6 not yet modelled. For Options to be progressed, BCRs will be calculated using outputs from the updated transport model SCRTM1



Based on the outcome of the OAR four Options will be investigated in more detail in the OBC: Options 1, 4, 5 and 6. The lowest cost base case ('Do Nothing'), a 'Do Something' and a low cost alternative are the minimum requirements for the process. A summary of the outcome of all the Options is given below:

|                 |   |
|-----------------|---|
| <b>Option 1</b> | Closure - Do Nothing base case  |
| <b>Option 2</b> | Not to be pursued. Does not deliver objectives and more expensive than Option 1 |
| <b>Option 3</b> | Not to be pursued (for same reasons as Option 2)                                |
| <b>Option 4</b> | Retain System but delay renewals. Do Something 1 - to be investigated further   |
| <b>Option 5</b> | Renewal of the system in 2024. Do Something 2 - to be investigated further      |
| <b>Option 6</b> | BRT Low cost alternative - to be investigated further                           |

The other main points to note from the SOBC are:

- i) All Options have significant costs and even with DfT funding will need a significant local contribution from 2019 onwards.
- ii) Any bid to DfT will be for the works around 2024. Costs up to this point and costs associated with ongoing operation after this will not be covered by this. At present the renewal of the system and the post renewal operation are two separate projects.
- iii) Expenditure to get to FBC is forecast to cost £2M in the period 2019 to 2021. Provision needs to be made to fund this.

There is a lot more work to do on all aspects of the project before the OBC can be completed. This means there is time to fine tune all aspects of the project and Business Case with the exception of the Option selection. The obvious caveat to this is that significant change will take time and money. The bidding process to DfT is competitive - if we got there too late there may not be any money left.

Following approval of the SOBC, work will start on Phase 2 of the decision making process - the production of the OBC. This will include public consultation in early 2018. More details of the next steps for the production of the OBC are given in Section 10 of the report.

## 1. Introduction & Purpose of this Document

In DfT's guidance on development of major transport investments, the approval of a Strategic Outline Business Case (SOBC) is the first of 3 major decision points (the others being the Outline and Full Business Cases).

The purpose of the Strategic Outline Business Case (SOBC) is to:

- Make the case for change;
- Confirm the strategic fit with the Region's, DfT's and wider Government objectives;
- Define the scope of the project and its outputs and benefits;
- Identify and analyse its stakeholders;
- Outline Options, including innovative options, to tackle the problem and carry out initial sift of Options;
- Consider and confirm that a robust project governance structure is in place and that the project is affordable;
- Set out how achievements will be measured;
- Outline the sequence in which the project and benefits will be delivered;
- State the assumptions made; and
- Confirm the assurance arrangements.

In line with Treasury's advice on evidence-based decision making set out in their Green Book, this SOBC is based on the five case model approach. This approach shows the project is:

- supported by a robust **case for change** that fits with wider public policy objectives – the 'strategic case';
- demonstrates **value for money** – the 'economic case';
- is **commercially viable** – the 'commercial case'
- is **financially affordable** – the 'financial case'; and
- is **achievable** – the 'management case'.

## 2. History of Supertram

Construction of the Supertram system in Sheffield started in 1991 with the first section opening in March 1994 and the final section in October 1995. The network has three legs - north from the City centre to Hillsborough, east to Meadowhall and south to Halfway with a short spur to Herdings Park. These are operated as the Blue, Yellow and Purple routes. More details of the network are shown in the map below.

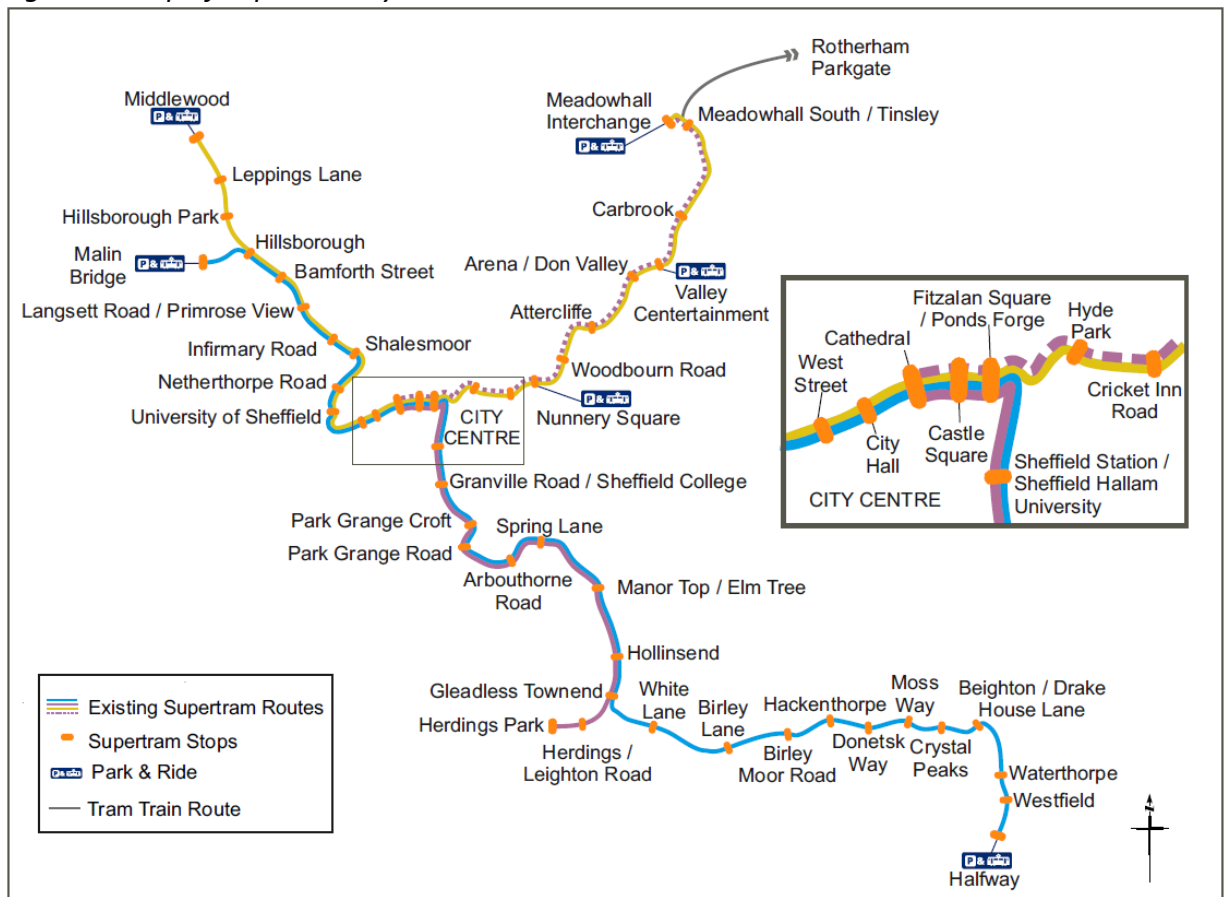
The system is made up of:

- 29 route km, 57km of track (approximately 24km (43%) in highway)
- A fleet of 25 vehicles
- 48 stops and 6 associated Park & Ride sites
- Overhead Power Supply, Depot, Signalling, etc.

Currently in implementation, the Tram Train project will deliver, in addition to the above:

- A 3 tram per hour service to Rotherham and Parkgate
- 4 Tram Train vehicles
- 3 additional vehicles for existing network (Supertram Additional Vehicles, SAV)
- Works to the Heavy Rail network to accommodate the Tram Train service

Figure 1: Map of Supertram System



The original system cost approximately £241M (outturn prices) to build. This cost was funded partly through Government grants (£80M), and partly through borrowings authorised through issued Non-Trading Credits and supported through Revenue Support Grant (RSG). The cost of servicing these borrowings is included in the levy, with the Districts receiving the RSG. As part of the re-financing of the tram (required as part of the Government's funding), SYPTE sold the operations subsidiary, South Yorkshire Supertram Limited (SYSL), to Stagecoach Holdings PLC in 1997. SYSL holds this concession until March 2024 and is responsible for operation and day to day maintenance of the system until then. The concession agreement also commits SYPTE to make the network available to SYSL for this period.

Since the tram started operation in 1994, usage has grown to a peak of 15 million trips per annum<sup>1</sup> providing an attractive and sustainable means for residents to gain access to jobs, education and services. The quality of service it delivers was reflected in responses to a recent survey<sup>2</sup> which indicated that 91% of respondents were satisfied with the overall journey, whilst satisfaction with the ease of getting on/off, interior cleanliness/condition and personal security was 95%, 92% and 92% respectively. Importantly, the tram provides this service without a direct revenue subsidy. (For comparison Government subsidy per passenger kilometre for Northern in 2016/17 was 24.7p<sup>3</sup>).

The tram is very important in providing access to opportunities for some of the most deprived neighbourhoods in England including areas of Walkley, Manor Castle and Park & Arbourthorne wards. Traditionally these areas with the highest levels of deprivation also have the lowest levels of car ownership so the tram is serving the areas with the highest demand.

At the time of construction, and since, it was envisaged that any major renewals would be funded in the same way as the original construction, i.e. significant national grant with a local contribution (SYPTE does not receive any funding for public transport asset maintenance equivalent to that received by local highway authorities). This means there is no fund or provision for future borrowings in the Region's budgets for life cycle renewals needed in the next few years.

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<sup>1</sup> Patronage has since dropped to 11.6M in 2014/15 as a result of Rail Replacement works and economic changes, but is expected to grow over the longer term

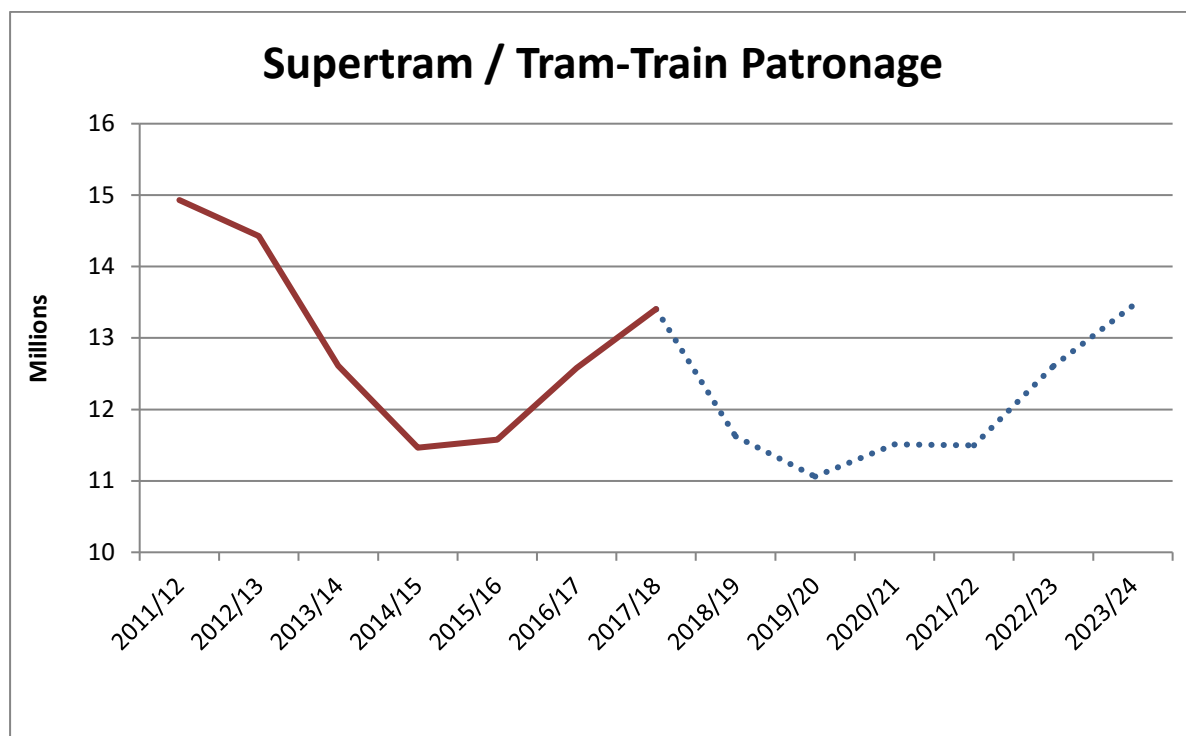
<sup>2</sup> Tram Passenger Survey (TPS): transportfocus, Autumn 2016

<sup>3</sup> Government subsidy per passenger kilometre by train operator Table 1.7, ORR

### 3. Summary of Current Position

This section of the SOBC summarises the current position of the tram system as background to the proposals for the future.

#### 3.1 Patronage



Source: Operator Data and SYPTE Data Service

Supertram patronage peaked at 14.6 million passengers per annum in 2011/12. During 2013 for a period of three years significant track replacement took place on the embedded sections of route. This rail replacement activity had a significant impact on patronage with the overall figure dropping to 11.6m in 2014/15, a drop of 21%.

Other factors behind this decline can also be attributed to:

- Reduced footfall in Sheffield city centre
- Increased availability and reduced cost of city centre parking
- Improved bus offering (fares, reliability, punctuality, fleet condition) through Bus Partnership
- Age equalisation (for ENCTS)
- Changes to times of discretionary travel
- Fall in the number of children aged 10 – 19 in Sheffield between 2012 and 2014
- Reductions in reliability of service offered to public.

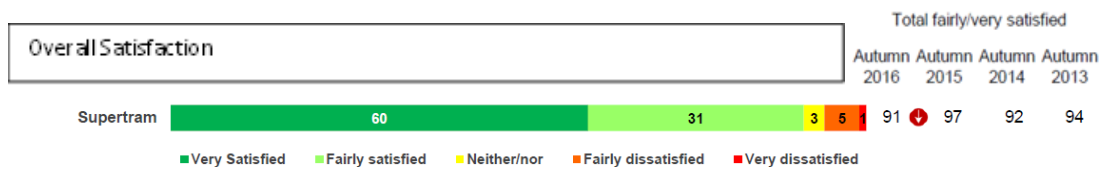
Whilst patronage has improved over the periods 2015/16 and 2016/17 patronage is still some way short of where it was prior to embedded rail

replacement. With further embedded rail replacement works due to be carried out between 2018 and 2020 it is expected that there will be a further impact on patronage.

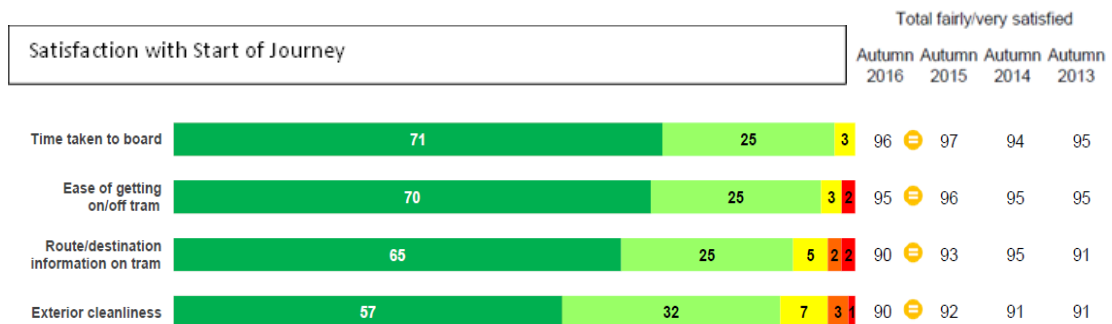
From late 2018 Tram Train services will commence and will contribute to patronage on the network.

### 3.2 Recent Passenger Satisfaction Levels

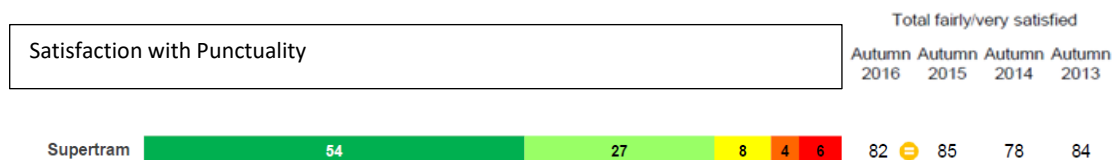
Despite the recent decline in patronage, data from the last four waves of the transportfocus Tram Passenger Survey shows that overall satisfaction with the tram is very high, with over 90% of respondents saying they were either 'fairly' or 'very satisfied' (see below).



Although there has been a slight dip in the Autumn 2016 results compared to 12 months earlier, satisfaction with accessibility, the time taken to board and the ease of getting on and off the tram, is particularly high, with the vast majority of respondents saying they were 'very satisfied' (see below).

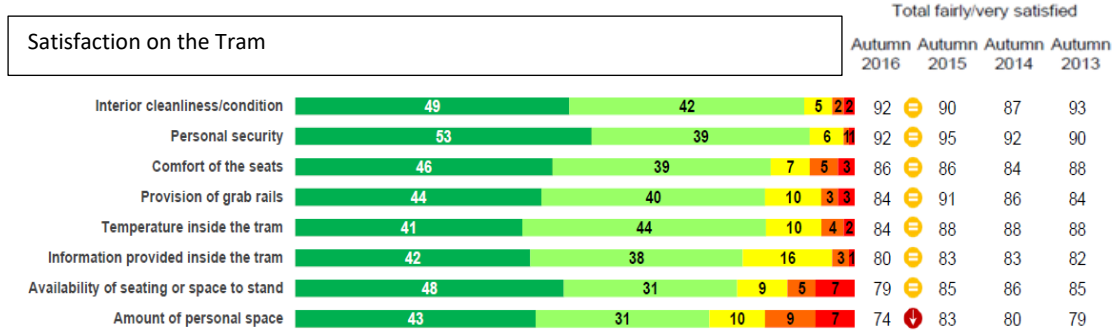


Satisfaction with punctuality is slightly lower at 82%, and has dropped from 85% in 2015, which may indicate that there has been a perceived decline in performance (see below). We aim to address service issues caused by congestion and unreliability of equipment as part of this project.

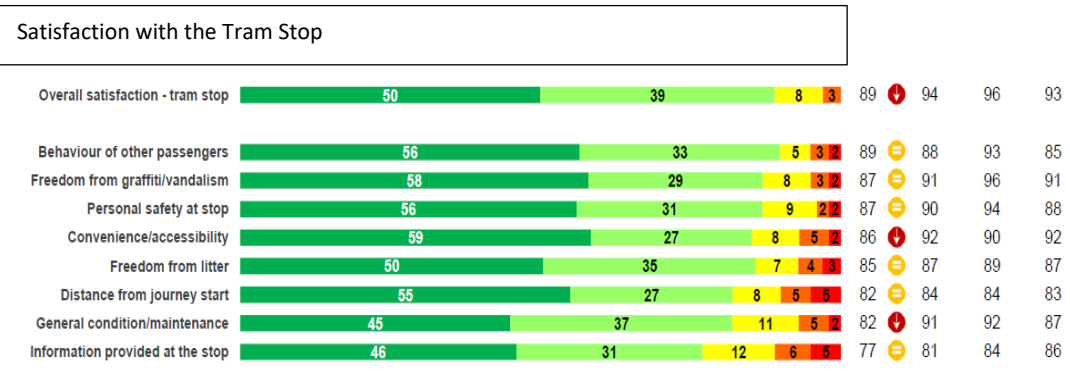


With regard to the tram itself, satisfaction levels with the interior cleanliness and personal security are particularly high (at 92%). The lower and declining levels of satisfaction with the availability of seating/space to stand (79%)

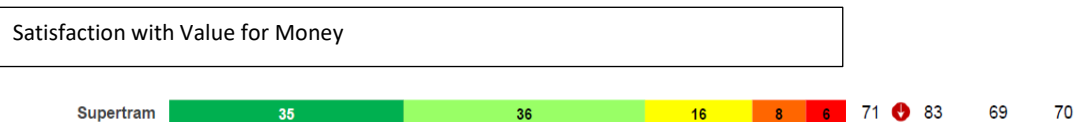
compared with 85% in Autumn 2015) and the amount of personal space (74% down from 83%), could be a reflection of the capacity problems experienced during peak times (see overleaf). Capacity issues will be addressed by the new Tram Train/Supertram Additional Vehicles (SAV) as well as this project.



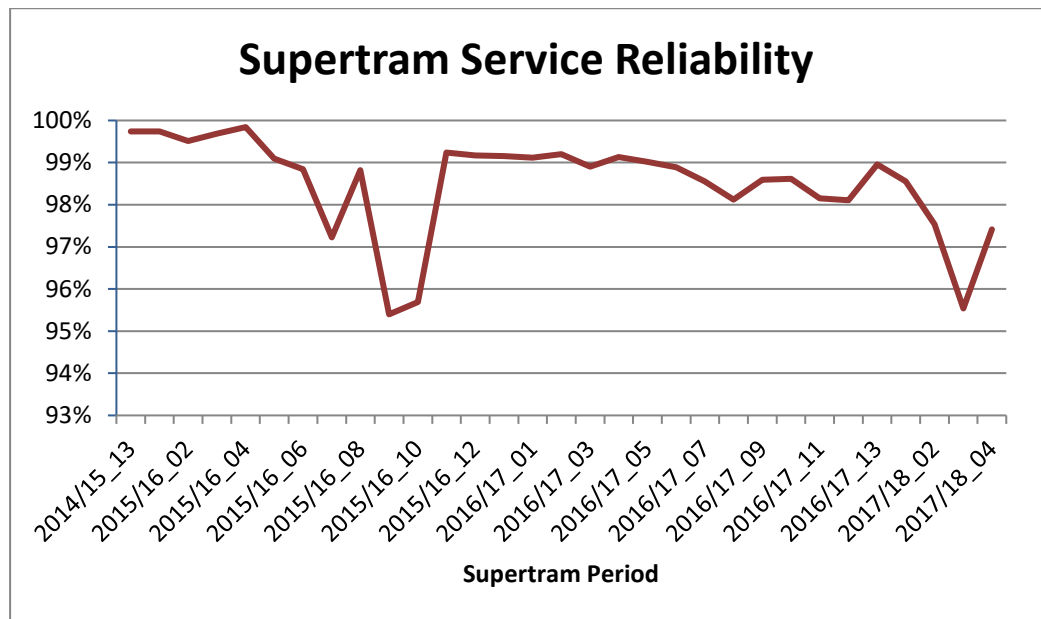
On the whole, respondents were satisfied with the tram stops, although there appears to have been a significant decline in users' perceptions of their general condition/maintenance, from 91% in 2015 to 82% in 2016 (see below). Improving the tram stops is part of the scope of this project.



Whilst still relatively high, satisfaction with value for money received the lowest satisfaction rating, at 71%. This is comparable with 2013 and 2014 levels, perhaps suggesting that the 2015 results were anomalous. Balancing the needs of increasing patronage, providing affordable fares and reducing the future burden on the taxpayer will be carried out as part of future stages of this project. At present Sheffield tram fares are comparable with those on buses (unlike other systems) and public transport fares are low compared to national levels



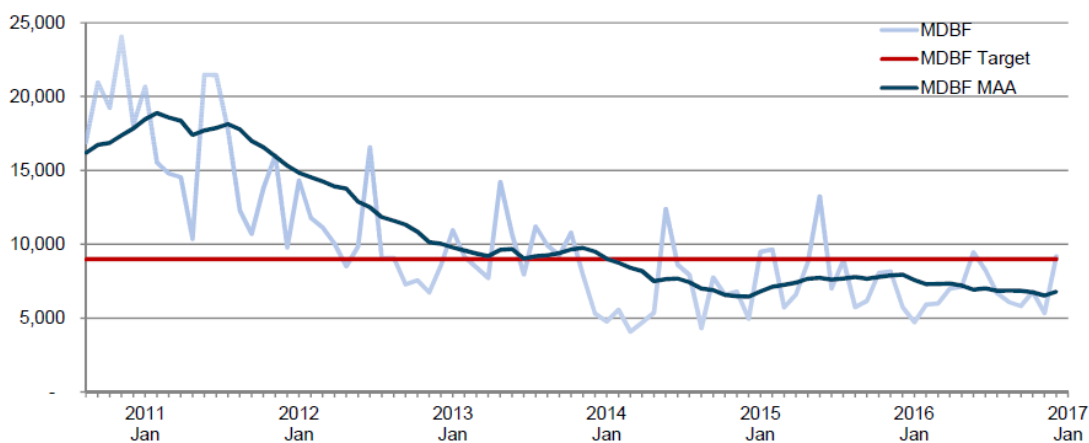
### 3.3 Service Reliability Trends



Source: SYPTE

Supertram’s reliability measurement is based on the number of trips operated per day related to the timetable. Over the past three years reliability has reduced due to a number of factors both internal and external to Supertram. The main cause of delays is other traffic on the highway.

Another area that has impacted on reliability is vehicle reliability with the Mean Distance Between Failure (MDBF) for the fleet declining for a number of years with the Moving Annual Average (MAA) reducing from around 20,000km to around 6000km.

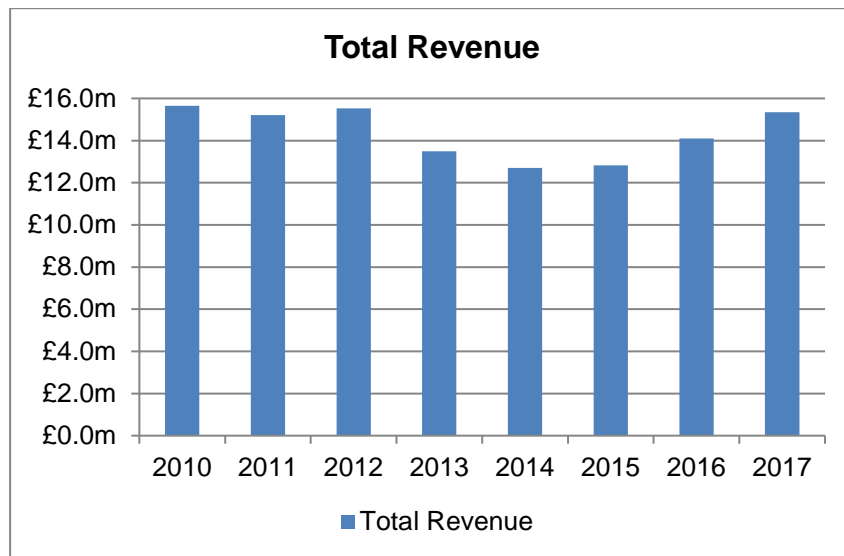


Sheffield Supertram Vehicle Asset Condition Review 2017

Other factors for vehicle availability have included road traffic accidents and other damage that has led to protracted repair periods. In turn this has put pressure on the remaining fleet.



### 3.4 SYPTE Revenue Estimates

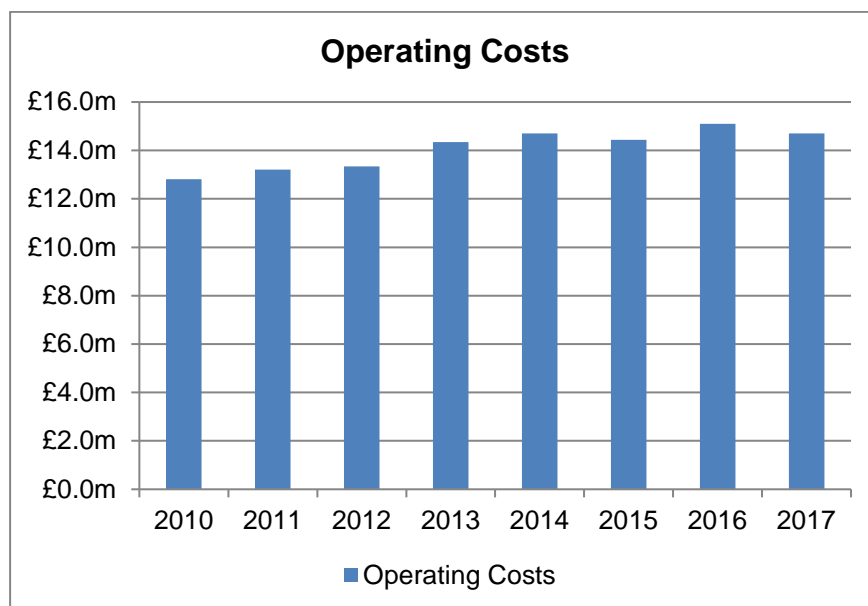


Source: SYSL Company accounts and SYPTE Estimates

The way in which the existing Supertram Concession is set up means that SYSL takes revenue risk. Using published accounts and SYPTE estimates, the above shows the impact that rail replacement has had on revenue over the period of 2013 to 2015. In order to address the drop in patronage, SYSL carried out a number of fares promotions to entice customers back to the network following the rail replacement.

In addition to the impact of rail replacement the transport market in Sheffield is highly competitive with improvements in bus services and fare reductions following the introduction of a Bus Partnership in late 2012.

### 3.5 Operating Costs



Source: SYSL Company accounts and SYPTE Estimates

Using SYSL company accounts and SYPTE estimates, operating costs have seen an increase since 2010. However, these costs appear to have levelled off over more recent years.

### 3.6 Current obligations

Supertram is owned by SYPTE with operation and maintenance carried out by SYSL. SYSL has primary responsibility for maintenance of the system. This responsibility is imposed through:

- The South Yorkshire Light Rail (SYLR)/SYSL Access Agreement; and
- The SYPTE/SYSL Consolidated Concession Agreement

SYPTE's obligations include:

- Responsibility for tram stop shelter panel maintenance and replacement
- Payment towards repairs for Latent Defects
- 50% contribution towards the cost of structures inspections

Sheffield City Council (SCC) has liability for the highway including those sections of the highway within which the rails are laid. SYPTE has concurrent liability through the Authorising Acts for the section of the highway within which the rails are laid. SYPTE and SCC have entered into an agreement relating to undertaking inspections of the Supertram System and for undertaking skid resistance testing. The agreement also regulates who is responsible for maintenance of both the highway and associated tramway structures.

SCC has a separate role of integrating Supertram into the effective operation of the highway network, including the provision of priority at traffic signals within its Urban Traffic Control processes.

Under the Concession Agreement SYSL have the right to make alterations and improvements to the System subject to prior written approval of SYPTE.

The contractual documentation does not accommodate alterations or improvements by SYPTE, if there is to be any alteration or improvement and it is to be a fixture then SYSL approval needs to be obtained in order for them to take on the maintenance of such items.

### 3.7 Current Asset Condition

In July 2017, the CA approved expenditure on Phase II of the Rail Replacement programme, the next round of work that is necessary to keep the network open until 2024. This decision was based on the same case as used in the Region's (unsuccessful) National Productivity Infrastructure Fund

(NPIF) Bid to DfT (June 2017) for a contribution towards these works. This case showed that even keeping the network open until 2024 delivered sufficient benefits to justify this investment. These works will be implemented between 2018 and 2020 and will adversely affect patronage due to the need to suspend operation on parts of the network and replace with bus services. (As previously noted, these pre-2024 works do not form part of the scope of this project).

Based on work carried out in 2017 the current condition of the rest of the Supertram asset is summarised below:

i) **Tram Vehicles**

The trams are mainly in good condition for their age but there are some issues with obsolete parts, particularly in the motor and auxiliary power supply systems on the vehicle. The work to date indicates that:

- The vehicles will need £7.5M of work to keep them operating reliably until 2024 or shortly after. Work on how this will be funded will start shortly.
- The current fleet could be refurbished in 2024 to extend their life by up to 15 years at a cost of £36.8M. This Option has risks that are difficult to forecast (e.g. fatigue cracking) but delays the cost of renewal. The cost of extending the vehicles' life beyond 2039 exceeds the cost of purchasing new vehicles.
- Replacing the fleet in 2024 would cost approximately £80M (in line with £84M estimate included in the bid to DfT).

(All above prices above at 2017 levels)

The refurbish/renewal options for the tram vehicles have different impacts on operating and maintenance costs and based on the capital costs above, a decision on a preferred Option could hinge on these. Works on analysing these Options will continue with a view to making a recommendation in early 2018.

ii) **Infrastructure**

- *Track* - A proportion of the rails outside the re-railing project have a longer economic life than previously forecast. This has reduced costs for 2024 but leaves more expenditure in future years.
- *Overhead Line Equipment* – Most of it still has another 30 years of economic life.(Approx. 2047)

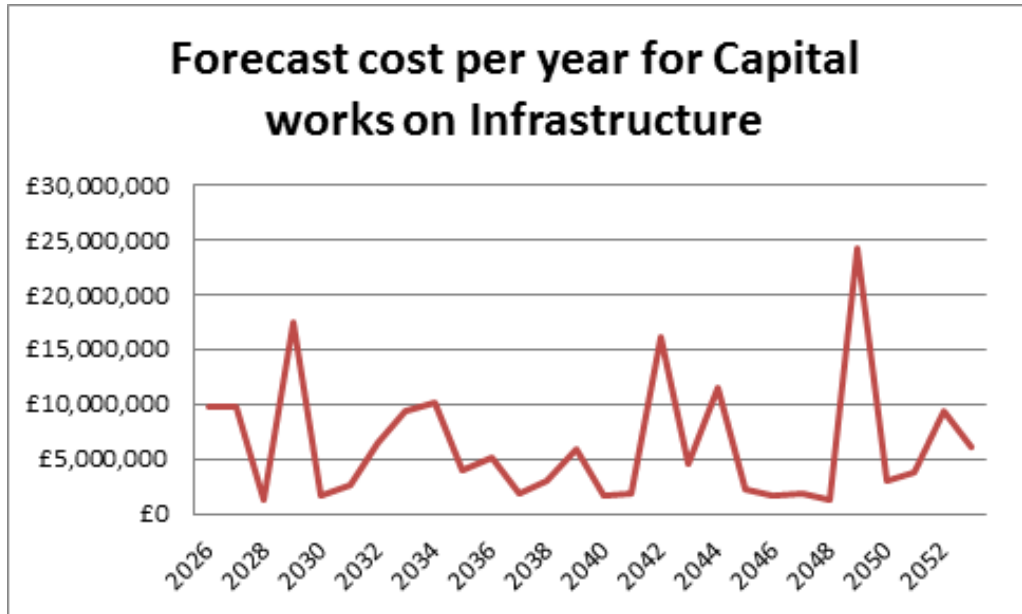
- *Traction Power Supply/Substations* – These need to be replaced in the next few years. Work to determine how much of this is needed before 2024 is ongoing
- *Supervision, Control and Communications Systems (e.g. radios, signals, SCADA and vehicle location)* – These are all approaching the end of their economic life and need replacing around 2020 to 2026
- *Depot* – Significant elements of the mechanical, electrical and plumbing systems are beyond their expected life expectancy. Any work on these would have to bring the systems into line with current regulations. (This is in addition to any works needed to accommodate a new fleet).
- *Stops* – These will need to be refurbished to some degree in the next few years, reflected in recent satisfaction results. (2020/2026).
- *Structures* – Small amounts of work needed in short term (e.g. Bridge Bearing maintenance, painting) but more in the longer term over the 60/90 remaining years of their design life
- *Highways Traffic Signals and Operation* – These are managed at no cost to SYSL within Sheffield City Council’s “Streets Ahead” PFI Highway Maintenance Contract.

Overall, the impact of these outcomes appears to be a slight increase in Estimated Final Cost (EFC) for the renewal Option (currently £230M) but these need to be confirmed as part of the next stage of work. The spread of works pre 2024 and post 2024 will also inform how the works are delivered.

Work on the spend profile and programme will continue during the next stage of the OBC production. (As noted elsewhere in this report works pre and post the 2024 period will not form part of any bid to the DfT’s Local Large major Fund).

### 3.8 Forecast Expenditure – Capital

The forecast capital spend per year should the network be retained in its current form is shown overleaf, this excludes the cost of the major works around 2024 (the subject of this SOBC) and any work required on the vehicles.



This expenditure will not form part of the proposed bid to DfT for the project to deliver the outcome of this OBC as by definition this is a programme of works and is not eligible for bids to the Local Large Major fund. The degree to which any of this can be funded from revenue generated is not yet clear, and work has started to determine how the balance will be funded.

#### **4. Preparation of this SOBC**

In July 2014 SYPTE Management Board formally approved the start of the development of a business case for the future of the tram network beyond the end of the current concession. The Strategic need for work on the future of Supertram and its possible continuing operation, was accepted by SYPTE's Executive Board (9<sup>th</sup> May 2016) and endorsed by the Combined Authority (CA).

This work enabled the Region to submit a successful bid to DfT's Local Large Major Fund, which provided a grant towards the cost of developing the Outline Business Case (OBC). The bid committed the Region to the submission of an OBC, including a webTAG compliant appraisal, to DfT in 2018/19.

On 28<sup>th</sup> October 2016, the CA approved the work necessary to update the Region's Transport Model. This model update is forecast to be complete by June 2018 and it will be used for the appraisal presented in the OBC. In agreement with DfT, appraisals to date (including those used in this report) have been carried out using the existing model.

As part of the project's development, consultation on the future of the network was carried out in September and October 2016. This showed high levels of support from Stakeholders and the public for continued investment in the network and:

- a significant majority (95%) thought the tram was an important mode of transport for the Region in the future;
- 91% of respondents saw it bringing future benefits to the Region;
- 83% rated the current network as good or very good;
- there was significant support for extensions to various locations.

The full outcomes of the consultation were reported to SYPTE's Executive Board in December 2016 and have informed development since then. Another phase of more detailed consultation with Stakeholders and the public is planned after approval of this SOBC in early 2018.

During 2017 work was carried out to update SYPTE's understanding of the condition of the current asset and to start to explore costs and programmes for options for the future. The costs used in this report pre date the outcome of this work. They will form the basis for initial design work in 2018.

In parallel with this, work has continued on the delivery of the Tram Train trial. As the service to Rotherham will not commence until 2018, any outcomes are not available for consideration in this SOBC. Consequently the impact of wear on the network (due to heavier vehicles/increased service) and the operating cost/revenue subsidy are not included in the figures quoted in this report. These will be considered in more detail in the OBC.

## 5. The Strategic Case

### 5.1 Business Strategy

#### i) **The Region**

SCR's current Strategic Economic Plan<sup>4</sup> (SEP) sets out the Region's plans to transform the local economy over the next decade. Reference is made to rising congestion and the need for ongoing investment in the transport network to enable the SCR's economy to prosper and grow. The emerging SCR Inclusive Industrial Strategy (IIS) builds on the current SEP and sets out the Region's ambition to develop a fully integrated multi-modal public transport network, which efficiently and affordably moves people around the Region to take advantage of the opportunities on offer. This integrated network is required to enable the SCR to maximise our growth and fully realise our potential. The current provision in these corridors is the starting point for this network.

The SCR's Transport Prospectus highlights the fundamental role that transport will play in delivering our plans for economic growth. Our evidence suggests that congestion is already restricting our growth, and without intervention, could significantly restrict the future productivity of the Region. In addition, gaps in connectivity could further limit access to employment, labour and high value jobs<sup>5</sup>. The Mass Transit network forms a key part of the multi modal system and without it, SCR's economic growth would be constrained due to further fragmented connectivity.

The SCR Integrated Infrastructure Plan (IIP) outlines the areas where growth is expected and where supporting infrastructure is required to facilitate this. Sheffield City Centre is one of our Growth Areas and identified as suffering from congestion, which our Mass Transit system helps to alleviate. We will target resources into those areas where we expect the majority of growth to happen, with innovation clusters dispersed around the City Region but well connected to each other and to the universities by rapid, reliable, high capacity transport services.

The emerging SCR Transport Strategy (2018- 2040) defines the goals we must achieve, the policies we will adopt to do this, and the conditional outcomes by which we will measure our success. The strategy sets out an aspiration to enhance productivity by making our transport system faster, more reliable and more resilient, which this

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<sup>4</sup> <https://sheffieldcityregion.org.uk/economic-strategy/growthplan/>

<sup>5</sup> Sheffield City Region Transport Prospectus (May 2017), p1

Mass Transit Phase 1 project supports. This strategy is part of the Fourth Local Transport Plan for South Yorkshire, setting out the long term strategy for a forward-looking City Region.

Northern Powerhouse Rail (NPR) is a Transport for the North (TfN) and Government led programme to develop fast, frequent and reliable rail links between the Northern cities of Sheffield, Leeds, Manchester, Liverpool, Newcastle and Hull. It is important that our intra-regional connections forge strong links to the Northern Powerhouse Rail hubs, to enable the Region to benefit from this improved pan-northern transport network. The Mass Transit system serves the Sheffield Midland station, and is therefore an integral part of our intra-regional connectivity package.

ii) **SCC**

The emerging Sheffield Transport Strategy aligns very closely with SCR documents, providing a lower tier perspective on movement within and around the city.

SCC Transport Strategy underpins the Sheffield Growth Plan and Local Plan, all focusing on the economic imperative of a growing city. Supertram is a key element of the public transport 'offer' in Sheffield, helping meet local our growth objectives by being the most efficient carrier of the greatest number of people in the urban environment. The Local Plan sees the tram as enabling key areas of proposed growth.

Alongside economic objectives are priorities for improvements in the environment and equality. The tram already helps with air quality in particular, but also carbon emissions. Recent work nationally by DEFRA is only serving to underline the importance of tackling transport-related air quality.

The tram already contributes to reducing inequality by serving some areas of multiple deprivation and providing access to the city centre and to the Lower Don Valley/Meadowhall areas where the bulk of employment opportunities are located.

iii) **SYLTE**

The strategic aims of SYLTE are to provide:

- A realistic alternative to the car that will encourage a shift in people's mode of travel



- Quality transport for those who are without the use of a car to enable them to access jobs, education, shops, healthcare and other facilities
- Good public transport services linking businesses to employees and customers

This project contributes to all these goals.

## 5.2 The Problem

The need to consider investment in the Supertram network is driven by:

- Significant elements of the network reaching the end of their economic life.
- The existing operating concession coming to an end in 2024.

At the time of construction, the economic life of significant parts of the network was forecast to be about 30 years. This was one of the factors in determining the length of the current operating concession.

Under the existing operating concession agreement, responsibility for maintenance lies with SYSL; however responsibility for renewals to extend the economic life of the system beyond the current concession period lies with SYPTE.

All Options for the future of the network, including closure, require considerable investment beyond the levels available to the Region at present. Some, in particular the 'Closure' Option, will have significant impacts on residents and the ability of both the Region and the City to deliver Strategic Economic Plan (SEP), Growth Plan, Local Plan, Transport Strategy and Air Quality targets.

For these reasons SYPTE/SCR decided to follow the DfT process for major schemes (as set out in their guide *'The Transport Business Cases, January 2013'*) to come to a decision regarding the future of the tram network.

## 5.3 Impact of not changing

Not investing in the network will result in its closure of the network on Health and Safety grounds in the next few years. This would have significant negative impacts on regeneration, congestion, air quality, accessibility and the image of the Region as well as significant decommissioning costs.

## 5.4 Objectives

A review of the problems outlined above, and the relevant strategic goals (local, regional and national), led to the adoption of the key objectives listed below. (Updated objectives were approved by SYPTTE Executive Board on 11<sup>th</sup> September 2017). More details on these objectives, the links between these objectives and the Region's Strategies and Goals and the ongoing work on targets, are shown in **Appendix A**.

These objectives will be reviewed as part of the next stage of production of the OBC when SCR IIS and revised SCR Transport Strategy are approved.

The primary objectives for this project are,

- i) **To improve Financial Sustainability** - To reduce future burden on Tax payer. (Reduce operating costs, increase revenue so a larger proportion of life cycle costs can be funded from fare income).
- ii) **Deadline** - To be ready to deal with the end of current concession (22/3/2024) to ensure there is no unnecessary gap in the service offered to public.
- iii) **Increase Patronage on the network in the areas served** - To assist with the delivery of SCR's Transport strategy.
- iv) **Improve Air Quality in areas served** - To assist with delivery of air quality targets.
- v) **Secure investment in infrastructure where it will do most to support economic growth** - To help deliver the goals of the Strategic Economic Plan (SEP) and SCC Growth Plan.
- vi) **Contribute to a positive image for Sheffield and the City Region** - To assist with inward investment and the quality of life of residents.

These will be supported or delivered by the following secondary objectives,

- **Increase Mode Share** - By becoming more competitive with car travel, increasing patronage and so help achieve other objectives
- **Improve contribution to Active Travel** - To assist improvements in health of residents
- **To deliver good Value for Money (VfM)** (but higher benefits are a higher priority than reduced costs)
- **Reduce Congestion** - To improve productivity in the Region

- **Increase Satisfaction** (Overall and for Affordability & Personal Safety) - Delivering what passengers want will help deliver other objectives (but affordability for passengers is a lower priority than financial sustainability)
- **Maintain or Improve Accessibility** - To help deliver Transport strategy goals
- **Provide high quality information on services offered** - To improve patronage
- **Increase Reliability** - To improve patronage
- **Reduce Journey Time** - To improve patronage and reduce operating costs
- **Improve punctuality** - To improve patronage
- **Improve emissions** - To assist reductions in carbon and emissions by mode shift
- **Minimise negative impacts on other sustainable modes** - To contribute to non-tram elements of transport strategy
- **Make best use of existing assets** - To avoid wasting previous investments

#### 5.5 Measures for Success/ Benefit Realisation Plan

The initial round of work on this is summarised in **appendix B**. This shows the outline targets, these could change dependent on the option selected. It also shows who is responsible for delivery and the proposed methodology for monitoring

#### 5.6 Scope

The scope of this project is summarised below;

- The public transport services offered by the tram on the 3 routes of the current network.
- The infrastructure owned by SYPTTE
- Any obligations on SYPTTE to others arising from the above, these include agreements with SCC regarding the Highway

The following are excluded from the scope of this project at present:

- **Tram Train**
- **Any additions to service or capacity offered at present or changes to highway operations**
- **The impact of any future works** (e.g. HS2, Bus Franchising, etc)
- **Operation of the network beyond 2024** - While the costs and benefits of operation beyond 2024 will be considered as part of the decision making regarding the future of the system's ongoing operation is not part of the renewal project. However, it is being considered in parallel and will form part of all planning, reporting and recommendations made.

More details of the scope are given in the supporting documents, Summary of scope for Options under consideration and Summary of scope for Option 5.

The scope is currently at outline stage only, more work on the details will be carried out as part of the next stage of work. This will include looking at items beyond like for like replacements, e.g. improved provision for active travel, the impact of Tram Train, more P&R provision and the scope for being ready for future extensions.

## 5.7 Constraints

The constraints identified to date include:

- Existing operating concession agreement between SYPTE and SYSL
- Availability of funding

No environmental or planning constraints have been identified yet but an Environment Impact Assessment has not yet been carried out.

## 5.8 Interdependencies

This project can be delivered on a stand-alone basis as there are no other schemes or other plans it is dependent on. However it does overlap with several proposed longer term proposals (such as HS2, Sheffield Station Masterplan and future extensions) that could impact on its scope or that it would be beneficial to make some provision for now, to save abortive costs later.

The project could also be affected by activities such as bus franchising that could impact on the case for investment. Work on the OBC will start in detail next year and whether or not these are to be considered in OBC needs to be determined by then.

Successful delivery of the project will rely on the delivery of the Region’s other plans for regeneration, public transport usage and air quality in the corridors covered by this project.

## 5.9 Stakeholder Analysis

In October 2016 SYPTE undertook a consultation following its normal processes, which engaged with a wide range of local stakeholders, interest groups, councillors, MPs and the general public. This included face-to-face engagement with people to hear their views. The consultation received over 2,000 responses.

The results of this consultation were collated and published in a topline findings report, available on the SYPTE website, which showed that:

- 94.8% of all respondents think that the tram is an important mode of transport for the Region in the future.
- 91.2% think that the tram will bring benefits to the Region in the future, such as supporting economic growth, connecting people to employment and reducing traffic congestion.
- 83% rate the tram overall as very good or good, citing reliability, convenience, cleanliness, conductors, journey time, affordability, accessibility, and reduced environmental impact as deciding factors.

There is broader support for the principle of developing a planned, sustainable, high-quality mass transit network or networks to deliver benefits to businesses and customers across Sheffield City Region, and SYPTE is in regular contact with a wide range of stakeholders, including MPs, district councils and councillors, parish councils, unions, chambers of commerce, universities and schools, and the local bus and train operators.

## 5.10 Options

Six Options for the future of the tram system have been considered. These were chosen to separate out the impacts of changes to service, network and delays to investment (i.e. lower Present Value of Cost (PVC)) compared to the benefits they might deliver.

| Option   | Summary of Scope  |
|--|---|
| <b>Option 1</b> (Do Nothing)<br>Tram System closes in 2024 | Decommission existing Network and make good. (Legal requirement for infrastructure in highway)Some structures retained for other uses.  |
| <b>Option 2</b><br>Truncate Network (and hence Services)   | Decommission Malin Bridge and Herdings Spurs and line from Gleadless Town End to Halfway. Renew remaining network to same spec as Option 5. Remaining services at current frequencies |

| Option   | Summary of Scope  |
|--|---|
| <b>Option 3</b><br>Retain current network but reduce service offered   | Renew existing system to similar spec to Option 5 but with fewer trams and longer life for wear related items. Service to be half the frequency operated currently. |
| <b>Option 4</b><br>Retain Network but delay vehicle and other renewals | Renewal to the same specification as Option 5 but delayed with impacts on reliability and hence patronage, etc.   |
| <b>Option 5</b><br>Renew System 2024                                   | Renew network in 2024 to a specification capable of operation for another 30 years (2024 to 2054), although some capital renewals would be required in this period  |
| <b>Option 6</b><br>Replace Tram System with BRT                        | Replace tram network with a BRT network covering same corridors. BRT to be guided off highway and unguided on highway   |

More details of the scope of these Options are given in ‘Summary of Options for Possible use in OBC’ in **Appendix C**.

More details of the costs associated with these Options are given in Section 7, the Financial Case.

#### 5.11 Impact of Options on delivery of the Project’s Objectives

| Option   | Summary of Impact on Objectives  | Overall             |
|----------|--|---------------------|
| <b>1</b> | Mode shift to car and bus means this Option has very large and negative impacts on most of the objectives.                             | Very Large Negative |
| <b>2</b> | Mixture of best and worst of Options 1 and 5 but overall impact negative.  | Negative            |
| <b>3</b> | This Option retains a lot of the renewal costs but has a high (negative) impact on mode share and will require ongoing revenue subsidy | Large Negative      |
| <b>4</b> | Delaying expenditure reduces PVC but growing unreliability produces growing negative impacts over time.                                | Positive            |
| <b>5</b> | Has a positive contribution to all objectives but also a high PVC  | Large Positive      |
| <b>6</b> | Mainly positive but lower than Option 5 (High risk Option)   | Positive            |

More details on how these Options perform when costs and benefits are considered are given in Section 5, the Economic Case.

#### 5.12 Risks

Option Specific Risks:

- Option 1 - Limited work to date on response by or impact on bus and highway networks, which could affect evaluation.

- Options 2 & 3 – Limited work to date on response or impact on bus and highway network. Impact of delays on renewals less certain than other aspects of forecasts.
- Option 4 - How long investment can be delayed and impact on reliability less certain than for other Options leading to less certain cost and patronage forecasts.
- Option 6 - SYPTE has limited experience of this sort of BRT and therefore the risk associated with the costs for this Option being wrong is higher than for other Options.

Risks common to all Options:

- Impact of Tram Train on Tram Options
- Initial costings only, could change as project develops
- Appraised using current model not updated one, could affect Benefit Cost Ratio (BCR).
- Availability of funding
- Unclear impact of recent requirements to improve air quality in Sheffield.
- Assumes that the Region's strategies fully implemented. Risk that this is not correct.

### 5.13 Carbon

Earlier calculations (when patronage was higher than at present) and the assumption that 82% of tram users would use bus in the absence of tram, showed that the tram emits slightly more carbon than the cars that would be required by 18% of tram passengers (assuming a 2011 mix of fuel at power stations).

However electricity is priced to include the shadow price of carbon, and therefore in economic terms the tram saves about 4,000 tonnes p.a. of 'non-traded' carbon dioxide equivalent, worth £81 per tonne. As electricity generation changes to cleaner fuel sources, the net carbon savings will rise, although the increasing uptake of electric vehicles with similar or 'greener' energy reliance could counter this to a significant extent.

The new model under development, together with more recent data on the mix of fuels likely to be used to power cars, buses and trams in future, will be used to forecast the tram's contribution to carbon reduction.

## 5.14 Recommendation on Options to be pursued in OBC

More details of this are given later, however the following options will be investigated further in Phase 2 of the decision making process:

- Close Network – Do Nothing/Baseline.
- Renew system but delay investment, accepting reduced reliability.
- Renew system as required around 2024.
- Replace system with BRT (low cost alternative).





## 6. The Economic Case

### 6.1 Outline of approach to assessing value for money

This section deals with the efficiency of how the inputs are converted into outputs, ensuring that inputs of appropriate quality are acquired at minimum price is dealt with in the Commercial Case, Section 8.

The costs used in the VfM assessment include a Quantified Risk Assessment (QRA). They also have optimism bias of 66% added to reflect the type and stage of this project. The forecast benefits come from the use of the existing transport model for Sheffield and Rotherham. While this is not fully up to date it has been agreed with DfT it is suitable for use in the Option selection process. An updated model for future appraisal work will be completed in June 2018. More details of this are given in the OAR.

### 6.2 Options appraised

Six Options were agreed by the Mass Transit team as covering a realistic range of possible strategies ranging from 'Doing Nothing' to replacing Supertram with a possibly more cost effective 'Bus Rapid Transit' system provided it met the requirements of the Strategy. These Options were chosen to separate out the impacts of reductions in service from changes to the network.

An operating cost model was developed allowing operating and maintenance costs potentially incurred by the private sector to be estimated for Options 2-5. Operating costs and revenues were calculated by SYPTTE from SYSL's accounts and in discussion with their managers<sup>6</sup>. Costs for Option 6 were estimated by SYPTTE based on experience with BRT elsewhere.

In line with current webTAG guidance, all monetary amounts in the Economic Case are expressed in 2010 present values and market prices over the project life ending 2053, excluding re-railing costs already incurred or committed and including a 66% optimism bias factor appropriate for the type (rail) and stage (SOBC) of the proposed scheme, and a 1.19 indirect tax correction factor to convert from factor to market prices.

The public sector was assumed to be in continued ownership of the assets in future with responsibility for funding any forecast operating deficit at the outset of any new concession, but the concessionaire bearing operating costs other than major track, infrastructure and vehicle renewals and taking all revenue. Public transport journey time benefits (user and business time savings, fares, car operating costs and indirect tax impacts) were calculated for Options 2-5 using the SRTM3 model.

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<sup>6</sup> For appraisal purposes Tram Train has not been considered as it could continue in all options, albeit with differing impacts on patronage.

**Option 1: (Do Nothing) Close the network in 2024 (2020-2026 cost = £138m in 2016 prices)**

Without tram, passengers would be forced to use other modes (including walking and cycling) or not travel. Under the terms of the 1870 Tramways Act and subsequent legislation, closure entails removing redundant tramway and returning it to its former use as road. Similar works will be required for off highway sections and all the tram related equipment. Some structures will be retained for other uses.

**PVC = £197m**

**Option 2: Close the Halfway, Herdings and Malin Bridge branches, reinstate to highway, operate current frequencies on the remaining network and renew infrastructure in 2024 (2019-2028 cost = £164m)**

This would require 20 vehicles to meet the current service frequency (10 minutes). Passengers currently using stops on these branches (currently 30% of total patronage) would be forced to use other modes, or walk further to remaining tram stops. Under this Option remaining track would be renewed when due and redundant track would need to be restored to highway.

**PVC (O2-O1) = £62m**

**PVB (O2-O1) = £252m**

**BCR = 4.05**

**Option 3: Reduce service frequency by 50% and delay infrastructure renewal due in 2024 by five years to 2029 (2019-2028 cost = £50m)**

This would require only 14 vehicles and, with a larger pool of spares, allow the reduced timetable to be met easily. Track would wear less slowly. Reliability would probably continue to fall however as obsolescence would become an increasing issue. Passengers not willing to wait 10 minutes longer for their service would switch to other modes or not travel.

**PVC (O3-O1) = £33m**

**PVB (O3-O1) = £79m**

**BCR = 2.42**

**Option 4: Refurbish fleet in 2024 to allow renewal to be deferred to 2040 and renew infrastructure in 2024 (2019-2028 cost = £179m)**

A phase of infrastructure renewal is included in 2024 and 2025 but vehicle renewal is delayed to 2040, with maintenance costs rising in the interim.

**PVC (O4-O1) = £75m**

Benefits of this Option have not yet been modelled.

### **Option 5: Renew fleet and infrastructure in 2024 (2019-2028 cost = £204m)**

This Option would involve carrying out all renewal work required to keep the system operating safely and reliably for 30 years.

**PVC (O5-O1) = £54m**

**PVB (O5-O1) = £304m**

**BCR = 5.63**

### **Option 6: Replace Supertram with BRT (2019-2028 cost = £177m)**

This is intended as a low cost alternative to tram but operating with the same seating capacity and on the same fixed alignment as tram. Tramway would be converted to guideway and overhead lines retained for the electrically powered BRT. The specification and hence costing of this Option is at a very early stage. It was assumed that BRT would attract 80% of the replaced tram's patronage.

**PVC (O6-O1) = £61m**

Benefits for this Option have not yet been modelled.

Options 2 and 3 require relatively significant additional capital spend after 2028 reflecting deferral of renewals.

Benefits have been calculated for Options 2 and 3 compared to Option 1, but since these Options represent divestment in Mass Transit, and have a poor delivery of the agreed objectives, they are more likely to be seen as alternative base cases. It has therefore been agreed<sup>7</sup> that the Option with the lowest financial cost to the public sector will be taken as the base case.

In terms of PVC of lifecycle capital and public sector operating costs (from 2024), Option 1 is significantly cheaper than Options 2 and 3 and therefore is the appropriate base case to use for this appraisal.

Options 4-6 represent alternative re-investment or 'Do Something' Options to be appraised against Closure. This will be done in 2018 using the new model. A full description of this model will be provided in the Appraisal Specification Report.

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<sup>7</sup>Email from Bob Collins (DfT) to Peter Elliott (SYPTe) 29<sup>th</sup> April 2017

Table 1: Transport Economic Efficiency of Options compared to Option 1

| Option   | 2                           | 3             | 5              |
|--|-----------------------------|---------------|----------------|
|  | £000 2010 prices and values |               |                |
| Greenhouse Gases                                   | n/c                         |               |                |
| Consumer Users (Commuting)                         | 44,362                      | 20,908        | 53,031         |
| Consumer Users (Other)                             | 154,384                     | 67,021        | 193,918        |
| Business Users and Providers                       | 60,286                      | 25,927        | 64,372         |
| Wider Public Finances (Indirect Taxation Revenues) | -10,316                     | -2,994        | -10,570        |
| <b>Present Value of Benefits (PVB)</b>             | <b>252,038</b>              | <b>79,305</b> | <b>303,933</b> |
| Broad Transport Budget                             |                             |               |                |
| <b>Present Value of Costs (PVC)</b>                | <b>62,294</b>               | <b>32,711</b> | <b>53,965</b>  |
| OVERALL IMPACTS                                    |                             |               |                |
| Net Present Value (NPV)                            | 189,744                     | 46,595        | 249,967        |
| Benefit to Cost Ratio (BCR)                        | 4.05                        | 2.42          | 5.63           |

Source file: Copy of 104264 22 DM Mass Transit Forecasts v2.0

The three 'Do Something' Options to be considered further in the OBC are:

Table 2: Summary of Costs and Benefits

| Option                        |  | Capital Cost                       |           |           | PVC <sup>(2)</sup>                       |                     | PVC c.f. Option 1 | PVB c.f. Option 1 | BCR  |
|-------------------------------|--|------------------------------------|-----------|-----------|--|---------------------|-------------------|-------------------|------|
|                               |  | 2019-2028 <sup>(1)</sup>           | 2029-2053 | 2019-2053 | Total                                    | Loss <sup>(3)</sup> |                   |                   |      |
|                               |  | £m 2016 factor prices undiscounted |           |           | £m 2010 market prices discounted to 2010 |                     |                   |                   |      |
| Alternative Base Case Options | 1. Do Nothing. Network closes in 2024        | 138                                | 0         | 138       | 197                                      | 3                   |                   |                   |      |
|                               | 2. Truncate Network                          | 164                                | 100       | 264       | 259                                      | 3                   | 62                | 252               | 4.05 |
|                               | 3. Retain current network but reduce service | 50                                 | 152       | 201       | 230                                      | 14                  | 33                | 79                | 2.42 |
| Do Something Options          | 4. Retain Network but delay renewals         | 179                                | 116       | 296       | 272                                      | 3                   | 75                | n/c               | n/c  |
|                               | 5. Renew Network                             | 204                                | 32        | 236       | 251                                      | 3                   | 54                | 304               | 5.63 |
|                               | 6. Replace Network with BRT                  | 177                                | 38        | 215       | 258                                      | 10                  | 61                | n/c               | n/c  |

(1) Includes risk allowance but not Optimism Bias.

(2) Includes all costs from 2019 to 2053 deducting revenues from private sector operating costs and adding subsidy where a loss would otherwise be made. Capital costs include Optimism bias at 66%

(3) This item is included in (2).

### 6.3 Assumptions

- Capital costs are early estimates only – these will be updated during the OBC process.

- Operating Costs – have been calculated from a cost model built by SYSL/SYPTTE based on current operating budgets to predict the impact of changing fleet numbers, age, service frequency and service kms.
- Revenue – has been calculated for the Base case selection using the SRTM3 model. Revenue forecasts for Options 4-6 will be based on the new model SCRTM1.

#### 6.4 Sensitivity and Risk Profile

Capital cost estimates are at an early stage of development and whilst unit costs for defined items are known, total costs are very sensitive to the specification of each Option. For instance, like for like replacement of trams is not desired, - digital technology has advanced, expectations and demands are greater than they were and longer-lived rails would be desirable, subject to price.

The impact of delaying renewals on reliability and patronage is not yet fully understood. We will do further work to identify these risks, using benchmarking, real-time information (where available) and recent experience

#### 6.5 Appraisal Summary Table

(Based on a run of SRTM3 and other work as reported in the Appraisal Specification Report to DfT on 30<sup>th</sup> October 2017).

| Impacts        | Sub-impacts                          | Estimated Impact in OAR (Option 5)   | Level of uncertainty in OAR  | Proposed proportionate appraisal methodology   | Reference to evidence and rationale in support of proposed methodology   | Type of Assessment Output                          |
|----------------|--------------------------------------|--|--|--|--|--|
|                |                                      |  |  |  |  | (Quantitative/Qualitative/Monetary/Distributional) |
| <b>Economy</b> | Business users & transport providers | £64,372,000 (O5)   | Medium – model used for this calculation based on old base traffic data.                                 | For this OAR, existing out of date model (SRTM3) is used, as webTAG model not available until 2018   | SRTM3 sufficient to indicate scale of benefits. New wide area multi-modal transport model will be available in mid 2018. Land use impacts will also be modelled using FLUTE18.                   | Monetary   |
|                | Reliability impact on Business users | Reliability will return to original levels of around 90% from current levels (about 80%) | Low – new vehicle technology should be more reliable. Existing vehicles getting less reliable with time. | Journey time information will be extracted from PTE/SYSL records and standard deviations calculated to baseline the current situation for comparison with that for new vehicles elsewhere. | Unpredictable journey times, especially long wait times are of great significance for users and providers but not covered in existing modelling methodology, so a separate analysis is required. | Monetary   |

| Impacts              |                  | Estimated Impact in OAR (Option 5)   | Level of uncertainty in OAR  | Proposed proportionate appraisal methodology                        | Reference to evidence and rationale in support of proposed methodology   | Type of Assessment Output (Quantitative/Qualitative/Monetary/Distributional) |
|----------------------|------------------|--|--|---|--|--|
| <b>Economy</b>       | Regeneration     | Significant.   | Medium – unlikely to be insignificant but mass transit not the only factors affecting inward investment. | Dependent development not forecast for OAR                          | For OBC FLUTE18 will be used – modelling land use impacts of closure – or selected DM compared to selected preferred Option. | Monetary   |
|                      | Wider Impacts    | Supertram has probably encouraged development and certainly improved accessibility.  | Medium   | These will be measured using WITA                                   | WebTAG requirement.  | Monetary   |
| <b>Environmental</b> | Noise            | With closure, additional cars would result, raising noise levels.  | Low  | Full EIA probably not required                                      | Preferred Option is expected to be a continuation of Mass Transit – i.e. business as usual.                                  | Qualitative  |
|                      | Air Quality      | If tram closed, additional cars would result, raising pollution levels.  | Low  | Full EIA should not be required                                     | Schemes reduce pollution cf base case and “no change” in terms of current situation.   | Qualitative  |
|                      | Greenhouse gases | If tram closed, additional cars would result, raising GHG emissions.   | Low  | New multi-modal model in development (SCR TM1). See ASR for details | Existing model (SRTM3) based on 2008 O-D data.   | Monetary   |
|                      | Landscape        | Scheme has a very minor adverse impact on landscape where it passes through a field for a short distance in the south of Sheffield.  | Low  | Desk based review   | Necessary if closure is the recommended Option   | Qualitative  |
|                      | Townscape        | By replacing cars and buses Supertram improves the appearance of the streets in the corridor, providing more space for pedestrians. The vehicles are quiet, well maintained, brightly coloured and attractive. | Low  | Desk based review   | Necessary if closure is the recommended Option   | Qualitative  |

| Impacts              | Sub-impacts                                     | Estimated Impact in OAR (Option 5)  | Level of uncertainty in OAR  | Proposed proportionate appraisal methodology   | Reference to evidence and rationale in support of proposed methodology   | Type of Assessment Output (Quantitative/Qualitative/Monetary/Distributional) |
|----------------------|---|---|--|--|--|--|
| <b>Environmental</b> | Heritage of Historic resources                  | Neutral impact likely   | Low  | Desk based review  | Necessary if closure is the recommended Option   | Qualitative  |
|                      | Biodiversity                                    | Neutral impact  | None   | None   | No Options impact this objective   | Quantitative   |
|                      | Water Environment                               | Neutral impact likely   | Low  | Desk based review  | Necessary if closure is the recommended Option   | Qualitative  |
| <b>Social</b>        | Commuting and Other users                       | £53,031,000 (O5)  | Medium – model used for this calculation based on old base traffic data.                                 | New multi-modal model in development. See ASR for details  | Existing model (SRTM3) based on 2008 O-D data.   | Monetary   |
|                      | Reliability impact on Commuting and Other users | Reliability will return to original levels of around 90% from current levels (about 80%)                        | Low – new vehicle technology should be more reliable. Existing vehicles getting less reliable with time. | Journey time information will be extracted from PTE/SYSL records and standard deviations calculated to baseline the current situation for comparison with that for new vehicles elsewhere. | Unpredictable journey times, especially long wait times are of great significance for users but not covered in existing modelling methodology, so a separate analysis is required. | Monetary   |
|                      | Physical activity                               | More physical activity is associated with tram than other motorised modes, with longer walk distances to stops. | Low  | WHO's HEAT model will be used.   | Not required by webTAG but easily computed and of interest.  | Monetary   |
|                      | Journey quality                                 | Users report superior journey quality to bus.   | Low  | No further research proposed   | Recent SP and attitude surveys likely to remain valid so will be included in demand model  | Monetary   |
|                      | Accidents                                       | Accident risk is significantly reduced for public transport users compared to car.                              | Low  | Local accident data available. COBALT model will be used.  | WebTAG requirement   | Monetary   |
|                      | Security  | Neutral impact unless scheme changes current arrangements   | Low  | Desk based assessment depending on design proposed.  | Dependent on what is proposed in terms of conductors, stops, technology.   | Qualitative  |

| Impacts                |                                | Estimated Impact in OAR (Option 5)   | Level of uncertainty in OAR  | Proposed proportionate appraisal methodology   | Reference to evidence and rationale in support of proposed methodology  | Type of Assessment Output (Quantitative/Qualitative/Monetary/Distributional) |
|------------------------|--------------------------------|--|--|--|---|--|
| <b>Social</b>          | Access to services             | Surveys show without Supertram many journeys would not be made or would be made with difficulty by other modes.      | Low  | Outputs from SCRTM1 will be plotted in GIS to calculate changes in accessibility by zone compared to base case | Distributional Impact Assessment now a webTAG requirement and could inform decisions on operating pattern and network extensions. | Quantitative/Distributional  |
|                        | Affordability                  | Neutral in the sense that buses in the corridor have similar fares.  | Low  | If decision made to raise tram fares above bus, business and social impacts will be tested using SCRTM1.       | Core scenario involves same fares as currently but higher fares may be necessary to ensure commercial case.                       | Monetary/distributional  |
|                        | Severance                      | Reinstatement to highway e.g. in the city centre would make crossing High Street much more dangerous than currently. | Low  | Desk based review  | Only if closure is the recommended Option   | Qualitative  |
|                        | Option values                  | Closure would reduce the opportunity the system affords non-users to access destinations by public transport         | Low  | Desk based review.   | Only if closure is the recommended Option.  | Monetary   |
| <b>Public Accounts</b> | Cost to Broad Transport Budget | £314,502,000 (O5)  | Medium – model used for this calculation based on old base traffic data. | New multi-modal model in development (SCRTM1). See ASR for details   | Existing model (SRTM3) based on 2008 O-D data.  | Monetary   |
|                        | Indirect Tax Revenues          | -£10,570,000 (O5)  | Medium – model used for this calculation based on old base traffic data. | New multi-modal model in development (SCRTM1). See ASR for details   | Existing model (SRTM3) based on 2008 O-D data.  | Monetary   |

## 6.6 VfM statement

The work outlined above confirms that there is potential for some of the solutions to the problem outlined in Section 5.2 to have a high or very high value for money (BCR greater than 4).



## 7. The Financial Case

### 7.1 Outline of the approach taken to assess affordability

All options have significant costs and even with DfT funding will require a substantial local contribution.

SYPTE does not receive any funding for public transport asset maintenance equivalent to that received by local highway authorities and with limited availability of internal funds there is no funding provision in budgets for the life cycle renewals needed in the next few years. Funding sources are currently being considered, however, this limitation of internal resource would almost certainly result in a need to borrow in order to finance the capital expenditure and consequently debt financing costs also need to be contemplated. This is an intrinsic part of developing the outline business case and at present the options cannot therefore be properly assessed for affordability without this consideration of the financing arrangements.

However, the do something options selected for further investigation all show potential for significant benefits compared to the baseline option and on this basis warrant this further work to develop the OBC.

SYPTE are also keen to explore how future operating arrangements can capture operating surpluses in order to generate funding for the cost of future renewals to reduce the need for public funding to facilitate future investment.

### 7.2 Summary of Costs

The costs for the Options considered in this SOBC are summarised below.

| Option  | Capital Cost <sup>(1)</sup> | Capital Cost <sup>(2)</sup> | Public Sector Costs (PV) <sup>(3)</sup> |
|---|-----------------------------|-----------------------------|---|
| <b>Option 1</b> (Do Nothing) Network closes in 2024                 | <b>£197M<sup>(4)</sup></b>  | <b>£138M<sup>(5)</sup></b>  | <b>£197M</b>                            |
| <b>Option 2</b><br>Truncate Network                                 | <b>£231M</b>                | <b>£164M</b>                | <b>£259M</b>                            |
| <b>Option 3</b><br>Retain current network but reduce service        | <b>£201M</b>                | <b>£50M</b>                 | <b>£230M</b>                            |
| <b>Option 4</b><br>Retain Network but delay investments in renewals | <b>£154M</b>                | <b>£179M</b>                | <b>£272M</b>                            |
| <b>Option 5</b><br>Renew Network                                    | <b>£230M</b>                | <b>£204M</b>                | <b>£251M</b>                            |
| <b>Option 6</b><br>Replace Network with BRT                         | <b>£198M</b>                | <b>£177M</b>                | <b>£258M</b>                            |

- (1) Capital Costs for renewals works, includes risk allowance but not optimism bias. See **Appendix D** for breakdown
- (2) Capital Costs for works around 2024
- (3) Public Sector costs (Capital and Revenue) over appraisal period (2024 to 2054) deflated and discounted to 2010 prices. Includes renewals where due and residual values. Includes risk allowance and optimism basis
- (4) Includes commuted sum to SCC
- (5) Does not include commuted sum to SCC

All figures exclude costs associated with operation and renewal of Tram Train

### 7.3 Outline of budgets/funding for the project

| Item            | Cost <sup>(1)</sup> | Funding   |
|-----------------|---------------------|---|
| OBC             | £2.7M               | SYPTE – Funded from ITB capital grant and SYPTE Revenue Budget<br>SCR - £1.2m and LGF budget for model development and staff time<br>DfT – £0.7m  |
| FBC             | £2M                 | SYPTE – Provision being made from ITB (or equivalent) and SYPTE Revenue Budget<br>SCR – LGF for staff time. Provision for other costs being made<br>DfT – Dependent on Option selection but could be £0 |
| Works           | £230M               | The Region will need to make provision for Local contribution. This is being investigated.<br>DfT – LLM Grant may be available  |
| Revenue Subsidy | £TBC                | Dependent on Option selected.   |

Notes: <sup>(1)</sup>Capital Costs based on Option 5 progressing, costs and funding for other Options vary

### 7.4 Risk Allowance

The risk log has been analysed for the financial impact of the identified risks. The outcome of this has been included in the cost plans above. The QRA will be re-run at the next Gateway/stage boundary. The costs above do not include optimism basis.

### 7.5 Accounting Implications

No significant issues have been identified to date, but this may change when procurement/delivery options such as PFI are investigated.

## 8. The Commercial Case

### 8.1 Approach taken to assess Commercial Viability

SYLTE have strong evidence that the operation of the existing network is commercially viable in terms of revenue exceeding operating costs (including general maintenance and elements of renewal) but not major capital investment. SYSL, the existing concessionaire has consistently made operating profits (as evidenced by annual accounts). SYSL operates at revenue risk and is obligated to meet all maintenance and regulatory costs. The fares policy is a matter for SYSL with restraint being created by competitive pressures from other modes. SYLTE does not provide operating subsidies. The commercial viability has been impacted to an extent by the increasing age of the system and the need to undertake disruptive renewals e.g. re-railing works. The works proposed in this business case will demonstrably assist in securing the commercial viability of the tram operation beyond 2024.

The assessment of the viability of the Tram/Train service to Rotherham Parkgate, which is due to commence operation in the summer of 2018, will be complete before any new operating model is implemented, and a decision on its future beyond 2024 will form part of the viability assessment.

Moving beyond the end of the existing concession, SYLTE are keen to consider how any future operating model can capture operating surpluses to generate a fund for meeting the costs of renewals and reduce the call on the public purse to fund such future investment.

Strategies around incentivising usage will be further considered, these include park and ride strategy, parking strategies with the local authorities concerned, managing bus based competition through usage of powers in the Bus Services Act 2017, planning policy to encourage on route development and softer measures around actively encouraging potential users to switch to public transport.

During the period of production of the OBC SYLTE will appoint financial and legal advisors to develop this work and recommend the most appropriate options for achieving the above aims.

SYLTE will also consider the longer term opportunities such as HS2, Northern Powerhouse rail and potential expansion opportunities (including through further expansion of Tram-Train to expand the local rail network or relieve capacity at Sheffield Midland Station) that are likely to arise during the next 30 year period of operation. Some of these will present short term challenges in terms of disruption, but present longer term opportunities for patronage growth.

## 8.2 Outline of outcomes and outputs for project

The outputs for the project vary dependent on which Option is going to be delivered. The initial targets for outcomes are shown in the Benefit Realisation Plan (**Appendix B**).

## 8.3 Outline of Procurement Strategy

### 8.3.1 **Background**

The background to the procurement strategy is:

- It is not a new system. There is a history of costs and patronage that reduce the risks to bidders (except for Tram Train).
- There will be a period of disruption during the works.
- There is a risk of further disruption if alterations to the system are made in the future (e.g. HS2 extensions, future of Tram Train). This is even more outside the operators' control and would be priced into bids.

(For all Options, lessons learnt from current arrangements and other systems would be incorporated in future contracts).

There will be various stages of procurement:

- i) The initial activity will relate to procuring specialist advisors to assist in developing the OBC. These will include technical, financial and legal consultants. Each appointment will be determined following an EU compliant procurement process designed to ensure the most economically advantageous appointment is made. These appointments will, where appropriate, allow for the services to cover the stages of the project through to any final award of contract to the new operating entity.
- ii) Specialist/Technical advisors will be required for each procurement of asset renewal work to ensure the requirements are fully specified. These specialist advisors will be procured through EU compliant open tendering on appropriate professional appointments and will, where appropriate, require collateral warranties to be provided in favour of any future operator.
- iii) New Tramway Vehicles (assuming purchased outright). A detailed specification will be drawn up, utilising the experience of the 2013 procurement for the 7 new vehicles on the system, and EU compliant tender process undertaken. It is likely there will be a

Master Supply Agreement and Technical Services, Supply and Support contract. The supplier will assume integration risk.

- iv) Future Operation/Maintenance. It is likely that a vertically integrated option will be progressed. As detailed in the sections below, various options need to be considered and appraised to determine the most appropriate short and longer term option.

### 8.3.2 Vehicles

Following completion of the asset reviews, further work will be undertaken as part of the next stage of OBC production with our appointed advisors to consider the most appropriate time to introduce a new fleet, taking into account the existing vehicle asset condition work, existing operating concession, impact on services, other programmed work and resources available.

In terms of the actual procurement of vehicles, the following options will be considered further:

- i) Purchase outright through a Master Supply Arrangement (MSA) and associated services/maintenance agreement funded as part of a DfT grant and local contribution;
- ii) Lease through a ROSCO (with separate maintenance agreement);
- iii) End of life re-refresh of existing fleet to extend their useful life and then option i) or ii) at later date.

Integration risk with the existing infrastructure should be transferred to the vehicle supplier. SYPTTE has recent successful experience of procuring new vehicles for the System and believe that vehicle suppliers will take this risk (wheel/rail interface risk etc.), given the known characteristics of the existing system.

### 8.3.3 Renewal Works

As noted before, SYPTTE are completing asset condition surveys on all components of the system which will help identify the scope of the renewal works required and the optimum time to undertake those works. The works will be across different disciplines (power, signalling, OLE, IT systems, depot modifications, track works, etc.) and the final scope and programme will be part of the information used to select the most appropriate option.

The options being considered include:

- i) Single contract to one supplier for all works required;
- ii) Separate contracts based on specialist disciplines, programme managed by SYPTTE and supported by technical advisors;
- iii) PFI options (including options that incorporate future operation and maintenance).

PFI (Design, Build, Finance, Operate and Maintain (DBFOM) or DB+OM) options are not presently considered as optimal/viable for the proposed renewals work as there is no planned extension of the system to justify the options, and there is no integration risk such an option could resolve. However these options will be further considered at OBC stage with our appointed advisors.

#### 8.3.4 Operation of the Network

##### a) *During Renewals Works (period around 2024)*

There will be a period of disruption to the operation of the system to accommodate the renewals works. The period over which such works will be carried out is still to be precisely determined, based on the asset condition work being undertaken and analysis of the most efficient way to programme the required works in terms of minimising passenger disruption and efficiency overall.

The option for securing operations will also be determined by the timing of the works, and in particular whether some elements can be undertaken pre-2024 and as such, fall into the SYSL Concession period, and therefore require some changes to either terminate that Concession early by agreement, move to a management contract arrangement or another solution.

- Vertical Integration Options

- i) Management contract - operator takes no revenue risk, which remains with SYPTTE. Maintenance (system and vehicles) to be undertaken as part of management contract. Short term while renewal works proceed.
- ii) Concession - Operator takes revenue risk. Maintenance (system and vehicles) to be undertaken by Operator. Longer term contract covering period of renewals and a number of years beyond.

- iii) SYPTE controlled arm's length entity operates. Takes revenue risk and maintenance obligation. Short term while renewal works proceed.

Determining where revenue risk best lies, how risk would be priced and which party is best placed/incentivised to mitigate risks during any renewals works period will form part of the options appraisal.

- Vertical Separation (split operation and maintenance) Options

Options as above, but maintenance is separated and contracted separately. Whilst these options are being considered, they are unlikely to be recommended for further detailed analysis as the main rationale for vertical separation (i.e. intention to seek competition for multiple operators utilising same infrastructure), is not present.

*b) Post Renewals Operating Period*

Once the renewals work is completed, and assuming the SYPTE has chosen a short term operating solution as detailed in Section 8.3.4 a) above (Options i) or iii)) to cover the period of disruption during the undertaking of the renewals works, then SYPTE will need to appraise the options for the longer term operation. Options include:

- Vertical integration options

- i) Concession let to private sector- Operator takes revenue risk. Maintenance (system and vehicles) to be undertaken by Operator.
- ii) Concession let to private sector - SYPTE take revenue risk. Maintenance (system and vehicles) to be undertaken by Operator.
- iii) SYPTE controlled arm's length entity operates (direct award). Takes revenue risk and maintenance obligations.
- iv) DBFOM or DBF+MO - These options will be tested as part of a total procured solution for the renewals work, operation, maintenance and further contract life renewals.

As referred to above, vertical separation options are unlikely to be considered appropriate, but will be considered.

All options will be considered in light of EU Procurement legislation (and any EU exit arrangements put in place when the UK leaves the EU). In particular the provisions of Regulation (EC) No 1370/2007 as amended by (EU) No 2016/2338 (relating to, amongst other matters, contract lengths, direct awards, and compensation) will be considered in the detailed Options Appraisal at OBC stage.

#### 8.4 PFI

PFI (DBFOM and DB+OM) options are not presently considered as optimal/viable for the proposed renewals work as there is no planned extension of the system to justify the options, and there is no integration risk such an option could resolve. However these options will be further considered at OBC stage with our appointed advisors to see if they could offer a value for money option.

#### 8.5 Risk Allocation and Transfer

The risk transfer and allocation varies dependent on which option for operation is chosen but the main risks and their treatment are summarised below:

|                        |   |
|------------------------|---|
| <b>Capital Costs</b>   | With SYPTE until tenders awarded then some risks transfer to Contractors.               |
| <b>Operating Costs</b> | Dependent on form of operating agreement.   |
| <b>Revenue Risk</b>    | Dependent on form of operating agreement.   |
| <b>ENCTS</b>           | Significant income dependent on one government policy, risk lies with SYPTE at present. |

More work on this will be carried out on this as part of next stage of OBC

#### 8.6 Human Resource Implications

- **SYPTE**

Provision for the resources necessary to deliver this project has been made in SYPTE's plans and budgets for the period up to 2026.

- **SYSL**

Impact dependent on which operation option is chosen.



- **SCR**

SCR have confirmed that they have made provision in their future plans for the resources necessary to deliver their element of this project.

- **SCC**

SCC confirms that their current Growth Plan and Transport Strategy are predicated upon continued (and potentially extended) provision of Mass Transit in these corridors' system, and that the resourcing of this is integral to these plans.

## 9. The Management Case

### 9.1 Outline of assessment of deliverability

For most of the options considered the deliverability has been assessed as relatively simple for the following reasons:

- Despite the high cost, most of the works are made up of relatively simple and distinct work packages
- SYPTE has delivered similar work packages in the recent past, e.g. Rail Replacement, Tram Train vehicle procurement.
- No new powers are required (unless we include any extensions)

There are three areas of work which do not fall into the above groups.

- i) Management of disruption. This includes the planning necessary to ensure the system remains operational as work is carried out. (Some experience gained as a result of work on Rail Replacement).
- ii) Systems integration (Specialist advisors will be needed)
- iii) Procurement of new concession. (No recent experience in SYPTE, external advisors will be needed).

More work on this aspect of the project will be carried out in the OBC and FBC stages.

### 9.2 Evidence of similar projects

SYPTE has successfully delivered,

- The original Supertram construction (On time/ budget)
- Doncaster Frenchgate (PFI) Total Cost > £200M
- BRT North
- Tram Train SAV (Supertram Additional Vehicles)
- Barnsley Interchange

### 9.3 Project Plan and Programme

Based on Option 5 the forecasts for the main milestones for this project are summarised overleaf. (Dates for other Options vary except for the end of the current concession).

|   |                          |
|---|--------------------------|
| Start of work on OBC approved (Start of Stage 2)  | <b>December 2017</b>     |
| OBC Approved for submission to DfT<br><i>(Completion date in bid to DfT was Oct 18)</i> | <b>March 2019</b>        |
| Programme Entry granted by DfT  | <b>Mid 2019</b>          |
| Design/Procurement/etc.   | <b>Approx 2 Years</b>    |
| Full Business Case Approved   | <b>May 2021</b>          |
| Orders Placed<br><i>(long gap between procurement &amp; site start at present)</i>      | <b>Post FBC Approval</b> |
| End of Current concession   | <b>24 March 2024</b>     |
| Works on Site Start   | <b>March 2024</b>        |
| Works Complete  | <b>2026</b>              |
| Post Implementation Monitoring  | <b>Post 2026</b>         |

Public Transport provision for the areas served by the current network will be continued throughout all the above but not necessarily at current levels.

For Options 2 to 6 there are currently two ways the work could be carried out:

- i) Do all the work in a short period after the end of the current concession (shorter period of high disruption) as shown above or,
- ii) Spread expenditure to better match economic life of assets (Longer period of reduced disruption, better spend profile/lower PVC)

These different delivery options will be explored further in the preparation of the OBC.

#### 9.4 Governance for OBC and implementation

The production of the OBC and then FBC will continue to be carried out using a governance structure based on current best practice, Central Government guidance and the experience gained during the production of recent successful cases such as BRT North and Supertram Additional Vehicles. The Team delivering the work will largely be drawn from people involved in previous similar work, all of whom have strong links to related current projects. The key staff involved will be:

i) **Senior Responsible Owner (SRO): Ben Gilligan – (SYLTE)**

As Director of Public Transport for SYLTE, Ben has responsibility for the provision of tram, bus and rail services across South Yorkshire as well as overseeing the safe operation of the Interchanges, bus stops

and facilities and the delivery of capital projects. Ben also acts as SRO for a number of the organisation's other major infrastructure and public transport projects. As SRO, Ben will be ultimately responsible for delivery of the OBC and ensuring that it complies with DfT requirements. He will also be responsible for the provision of resources and match funding, managing the impact of external risks and ensuring SYPTE's stakeholders' views and SYPTE's plans are aligned. The SRO will be responsible for reporting to the Transport Executive Board, SCR and the Combined Authority

ii) **Project Manager: Peter Elliott, Principal Programme Delivery & Planning Manager (SYPTE)**

Peter Elliott has led the production of OBCs for projects which have moved on to become successful funding applications from several funding sources. These include BRT North and Supertram Additional Vehicles (SAV). As Project Manager, Peter Elliott will be responsible for the day to day management of the production of the OBC, leading the project, co-ordinating the activities of the Work Packages and will act as the link to the Project Board. He will also be responsible for ensuring that the OBC production meets its Programme and Cost targets.

iii) **User Representative**

Ensuring the users' requirements are reflected in the development of the OBC will be shared by:

- *David Budd – Assistant Director, Transport, SCR:* David will ensure that the scheme will deliver the relevant parts of SCR's SEP and the emerging IIS and Transport Strategy refresh. This will ensure that the requirements of the Region's residents and visitors, as captured in SCR policy and goals, are included in the development of the OBC. He will also make links to other delivery areas of the Combined Authority, such as housing investment, planning and economic infrastructure so that this scheme supports the overall investment programme of SCR.
- *Tom Finnegan-Smith – Head of Strategic Transport and Infrastructure, SCC:* Tom will ensure that Sheffield's residents' views and Sheffield City Council's (SCC's) ongoing plans for the area are included in ongoing development of the OBC. Tom will represent the other Local Authorities in SCR and also ensure that investment in Supertram is linked to other transport programmes, such as HS2, Transport for the North (TfN) and more local sustainable transport initiatives.

iv) **Supplier Representative: Steve Davenport, Principal Solicitor and Secretary to the Executive (SYLTE)**

Steve leads the Legal, property and Governance teams for the PTE and SCR. Steve is also SRO for the Tram/Train project and will lead on the development of the next concession. The Team will be assisted, where appropriate, by SYSL to ensure their knowledge and experience of operating the current network is captured.

v) **Modelling Lead: David Andrews, Sheffield City Region (SCR)**

David will be responsible for leading the development of the model and the appraisal for this OBC. He was involved in the BRT and Supertram Additional Vehicles (SAV) bids and is now 'Senior Programme Manager (Modelling) - Assurance Directorate' in SCR.

This Project Team also has strong links with ongoing tram related works including:

- Tram Train
- Re-railing (already being delivered)
- Future extensions/HS2/TfN links

The Governance of the project during implementation will be based on above but work on designing this will not be started until after the approval of the SOBC.

9.5 Assurance and Approvals

This project is using an assurance process based on one successfully used in the Rail Replacement and BRT projects. In addition to the three investment decision points (SOBC, OBC and FBC) SYLTE will also have Gateway Reviews at the end of each stage noted below at which approval to proceed with the next stage is granted (or not).

| Investment Decision points | SYLTE Stage Boundaries | Forecast Completion Date | Comment                                |
|----------------------------|------------------------|--------------------------|--|
|                            | Concept                | Complete                 | (PRINCE2= Starting Up)                 |
| <b>SOBC</b>                |                        | Dec 2017                 | This Document                          |
|                            | Feasibility            | Oct 2018                 | (PRINCE2=initiation)                   |
| <b>OBC</b>                 |                        | March 2019               |  |
|                            | Detail Design          | 2020                     |  |
|                            | Tender Actions         | 2021                     |  |
| <b>FBC</b>                 |                        | 2021                     | Based on tender returns                |
|                            | Implementation         | 2026                     | (End of this stage in PRINCE2=Closure) |
|                            | Post Implementation    |                          |  |

At each Gateway, live elements of the Project Initiation Documentation (e.g. Business Case) and other relevant project documents are reviewed. If:

- Business Case is still viable;
- documentation up to date/completed;
- funding is available for next stage;
- funding is likely to be available for implementation;
- all necessary approvals are in place;
- all known risks identified are recorded and actively managed,

then the SRO signs off on implementation of the next stage.

## 9.6 Communications and Stakeholder Management

Building on the initial consultation which took place in October 2016, preparation of a joint Stakeholder Engagement Strategy (SES) by partner organisations will enable early identification of, active communication and consultation with, key influential stakeholders - including the CA, LEP, SYSL, passengers, residents, and businesses in order to:

- ensure that the key stakeholders (who ultimately are required to approve the programme) are sufficiently engaged in the benefits in order to make an informed decision about the future of the network;
- solicit input, strengthen support and maintain interest in project planning and progression;
- minimise the likelihood of encountering competing objectives, effectively assisting and balancing stakeholder interests;
- maximise resources required to successfully complete project tasks.

This SES will provide a richer and more detailed understanding of the stakeholder landscape as well as a greater understanding of their views on the tram network in 2024 and beyond.

## 9.7 Project Reporting

Monthly Highlight Reports on progress are submitted by the Project Manager to the SRO/Project Board and at any time during the project an Exception Report can trigger the equivalent of a Gateway Review if required.

Progress reports are also submitted to SYPTE Executive Board every 6 weeks.

In addition to this, approvals needed to progress the project are submitted to the SYPTE's Executive Board (in line with the requirements of SYPTE's

standing orders) and the Combined Authority, including though its Transport Executive Board (TEB).

## 9.8 Risk Management

The project has a live Risk Register and QRA is undertaken at key milestones. Keeping the Risk Register up to date is the Risk Owners' responsibility (overall process monitored by Project Manager).

When risks are identified during the course of development of the project they are recorded on the Risk Log in the Issue Management System (IMS) administered by SYPT. In line with PRINCE2 guidance the risk log records the impact, owner, proximity and mitigation for each risk. In addition, each risk is allocated a priority; this is a mixture of the scale of impact and proximity and is used to aid management and reporting.

The process for assessment of each risk is to identify the effects of its occurrence together with the likelihood of the occurrence being realised. The financial impact of each risk is analysed by estimating the most likely cost outcome associated with the risk, together with an estimate of the range of possible cost outcomes.

At key milestones the total for all the individual risks in each Work Package are calculated in @RISK (risk impact modelling software) and the P50 outcome used as the QRA included in the Cost Plan. Not all the identified risks have a financial impact on the cost of the project, but may affect delivery of the project. These have been defined as strategic risks that may impact on the overall programme or even the actual viability of the project. Although these risks do not contribute to the Quantified Risk Allowance included in the Cost Plan there is still a need to identify and manage appropriate measures to mitigate the effect of these risks. Similarly, some risks impact on the operational phase beyond the life of this project are not included in the QRA but are managed by the project team (e.g. patronage and hence income).

For all risks an owner is assigned to take responsibility for and manage the mitigation measures to be implemented to reduce the probability of occurrence or the impact of the risk. The options for responding to the risk are to tolerate, treat, transfer or terminate the risk and appropriate mitigation measures are determined from the agreed response to the risk identified at the risk workshops.

The detailed mitigation measures and actions for each risk are recorded in the Risk Log. Details of these for this project are shown in the Risk log (see supporting information). Regular monitoring of the Risk Register with the risk owners takes place to review any changes to the status of each risk and review the effectiveness of the mitigation measures, particularly for the

significant risks on the project. This approach has worked well to date on this project and on other SYPTE led projects.

The main risks for this project at present are:

- Estimates provisional
- No funding in place for implementation of any of the options
- Availability of resources if priorities change

#### 9.9 Benefits Realisation Plan and Monitoring

The draft benefits realisation plan is attached as appendix B. This also show how the outcomes will be monitored., these are a mix or existing monitoring processes (e.g. patronage) and new ones specific to this project.

#### 9.10 Options approach for Project Management

After review of several options it has been decided that the project management of the production of the OBC will continue to be carried out using SYPTE's in house team of Project Managers. This is likely to be the case for the production of the FBC and implementation but these will be reviewed before these stages start.



## 10. Summary of Next Steps

Following approval of the SOBC the project team will continue to progress the production of the OBC. This will include:

- Completion of the model update (June 2018)
- Refining details of scope (Early 2018)
- Updating costs and programme for all Options (Mid 2018)
- Consultation with Stakeholders and public on the options proposed (early 2018)
- WebTAG compliant appraisal (September 2018)
- Production of OBC and supporting documentation (early 2019 or before)

Following the Region's approval of the OBC and subject to what it recommends it will be submitted to DfT as a bid for funding. If this is successful DfT will grant programme entry for the scheme and work will commence on the Full Business Case.

In parallel with the OBC work, we will also be progressing:

- Work necessary to keep the network going
- Improving the system's asset management processes
- Proposals for operation of the system after the current concession ends

### **Appendices/Other Documents (available upon request)**

- Appendix A Project Objectives**
- Appendix B Benefits Realisation Plan**
- Appendix C Summary of Options for Possible use in OBC**
- Appendix D Summary of Costs for Options**

### **Supporting Information**

The following supporting information is available upon request. Please note some of these are live documents and the latest versions may not reflect those used to produce this SOBC.

- Bid to DfT for Local Large Major Funding - July 2016
- Summary Programme for production of OBC
- Summary cost plan for the production of OBC
- Summary cost plans for options 1-6
- Summary of scope for options 1-6
- Risk Log
- Structure and Work Packages
- OAR V9 20 October 2017
- ASR V4

**TRANSPORT EXECUTIVE BOARD****30<sup>th</sup> NOVEMBER 2017****SCR TRANSPORT STRATEGY REFRESH CONSULTATION PLAN****Purpose of Report**

To update the Transport Executive Board on the public consultation plans for the draft Sheffield City Region Transport Strategy, further to the CA Board meeting on 30 October and the LEP Board meeting on 9 November 2017.

**Thematic Priority**

The Transport Strategy underpins all six thematic priorities of Sheffield City Region's Strategic Economic Plan (SEP) by creating the right conditions for economic growth, though it will principally deliver thematic priority 6: securing investment in infrastructure. Likewise, the Transport Strategy will support all five strategic priorities of Sheffield City Region's emerging Inclusive Industrial Strategy. Specifically, it will support delivery of a fully integrated multi-model public transport network.

**Freedom of Information**

No exemptions in relation to the Freedom of Information Act 2000.

**Recommendations**

That the Transport Executive Board:

1. Notes the CA Board approval on the 30 October 2017 to undertake a 12-week statutory public consultation on the draft SCR Transport Strategy refresh.
2. Notes the change to the consultation timescales with a January 2018 commencement now planned to provide adequate time to prepare the necessary consultation materials.
3. Approves the draft consultation plan outlined in this report, and delegates the remaining detail to the SCR Transport Strategy working group, which is comprised of Local Authority partners.

**1. Introduction**

- 1.1** The Transport Act and Local Transport Act 2008 place a statutory obligation on the SCR Combined Authority to produce a Local Transport Plan. The refreshed Transport Strategy will form part of the Local Transport Plan for the SCR.
- 1.2** A Working Group of local authorities, LEP representatives and key stakeholders was established earlier this year to steer development of the refreshed transport strategy.
- 1.3** This report seeks endorsement from the Transport Executive Board members of a draft plan for the statutory 12-week public consultation for the refreshed SCR Transport Strategy, as approved for consultation at the CA Board on 30 October 2017.

## 2. Proposal and justification

- 2.1** The 'SCR Transport Strategy 2011 – 2026' was written before the Combined Authority and Transport for the North existed, and it was focussed on delivering transport schemes under 26 policy areas. As a Combined Authority, SCR is required to commission projects through open and competitive tender to secure grant funding, and this demands a more outcome focused strategy. The Transport Strategy also needs to be better aligned with the SCR Strategic Economic Plan (SEP) and emerging Inclusive Industrial Strategy to deliver the transport infrastructure required for economic growth.
- 2.2** On 30 January 2017, the Combined Authority Board agreed to refresh the SCR Transport Strategy rather than undertake an extensive re-write. This action was taken to reflect the Governance changes and Transport for the North's strategic priorities, and to ensure effective interaction with national and sub-national programmes such as Northern Powerhouse Rail and HS2. It also provided the opportunity to extend the timeline for the Transport Strategy to 2040 and reduce the number of policies to a more manageable set of priorities.
- 2.3** Arup was appointed to develop and produce the refreshed Transport Strategy, under the guidance and direction of a Working Group of the four South Yorkshire local authorities, LEP representatives and key stakeholders.
- 2.4** The Transport Strategy comprises of an overarching vision, key goals and a set of policies that will determine the strategic transport priorities for the Sheffield City Region. This working group was supported and informed by three productive and well-attended workshops were held with 28 stakeholder organisations to discuss and shape the vision, goals, policies and conditional outcomes. It can therefore be seen that the draft Transport Strategy has been developed and refined through partner collaboration
- 2.5** Whilst the economic geography of the SCR is wider than South Yorkshire, the goals and policies of the Draft SCR Transport Strategy will only apply to South Yorkshire. This is because the Sheffield City Region has three transport authorities; each with their own Local Transport Plan.
- 2.6** The proposed vision for the refreshed SCR Transport Strategy is:
- By 2040 we will be a forward-looking City Region with integrated transport connections that support economic growth and improve quality of life for all.*
- 2.7** There are four recommended transport goals, each with three policies. These are detailed in the table in section 5 of the attached 'Sheffield City Region Transport Strategy – Draft for Consultation' but to summarise they are:
- a) Support inclusive economic growth
  - b) Create healthy streets where people feel safe
  - c) Improve the quality of our outdoors
  - d) Promote, enable and adopt different technologies
- 2.8** The Transport Executive Board approved the draft vision, goals and policies on 24 August 2017

- 2.9** Upon completion of the amendments requested at the CA Board on the 30 October 2017, and preparation of the necessary supporting materials, the draft Transport Strategy will be published for public consultation in early January 2018. As a statutory document, it is recommended that the public consultation runs for 12 weeks.
- 2.10** Following the public consultation, the Transport Strategy will be further refined and an agreed set of changes submitted to the CA Board for publication approval.

### **3. Consideration of alternative approaches**

- 3.1** As outlined in the SCR Transport Strategy Paper that was considered by the Combined Authority Board in January 2017, SCR could choose not to update the existing Transport Strategy. As the current Transport Strategy was published in 2011 there have been significant changes to governance arrangements in the SCR and changes in the way that national and cross-regional transport is managed that the existing strategy does not take account of.

A full re-write of the SCR Transport Strategy was also discounted as a suitable approach as this would have required substantial time and cost resource, and would have delayed the delivery of the SCR's Strategic Economic Plan objectives.

### **4. Implications**

#### **4.1 Financial**

A costed Consultation Plan has been produced based on the cost of similar consultations in other parts of the UK. The cost of the SCR consultation process will be minimised through the use of press releases, social media, and online consultation tools such as electronic surveys. Costs will also be reduced by presenting the draft Transport Strategy at pre-scheduled meetings of partners and stakeholders, and by running joint events and workshops with other SCR strategies, specifically the HS2 Growth Strategy and Inclusive Industrial Strategy.

A copy of the Consultation Plan is attached. The latest cost estimate is in the region of £15k, and will be met from within existing resources.

#### **4.2 Legal**

As the Transport Strategy is a statutory document for the Combined Authority, an Integrated Assessment has been produced to ensure that the strategy is legally compliant. The Integrated Assessment considers the environmental, health and equalities impacts and sustainability.

A separate Habitats Regulations Assessment has also been carried out on the Transport Strategy's goals and policies to identify the impact on nationally and internationally designated sites. These sites include the Peak District National Park, South Pennine Moors and Green Clay Pits. The assessment concluded that interventions under five of the twelve policies would require further assessment to ensure compliance with the Habitats Directive Legislation.

The consultation process must be robust and thorough to avoid legal challenge. The Consultation Plan has been deliberately designed to enable the public, stakeholders and partners to view and comment on the Transport Strategy documents in a variety of ways.

### **4.3 Risk Management**

The SCR Strategic Economic Plan (SEP) is also in the process of being refreshed. Whilst there was a risk that the refreshed SEP and refreshed Transport Strategy could be misaligned, this risk has been managed by SCR Executive Officers. The SCR Inclusive Industrial Strategy which supersedes the SEP, and the emerging Transport Strategy, are complementary.

As indicated in section 4.2 above, there is a risk of a legal challenge if the consultation process for the Transport Strategy is deemed to be limited or exclusive. The Consultation Plan ensures that this risk is managed and minimised. It identifies how and when the Transport Strategy consultation will be communicated, who the target audience is for each form of communication, the different formats that will be used to present the refreshed Transport Strategy and how comments on the Transport Strategy can be submitted over a 12-week period.

### **4.4 Equality, Diversity and Social Inclusion**

An Equalities Impact Assessment has been undertaken as part of the Integrated Assessment for the refreshed Transport Strategy.

To ensure that the consultation process on the Transport Strategy is inclusive, the Transport Strategy documents will be available in electronic, printed and accessible formats. Members of the public and transport users of all ages and socioeconomic groups will be encouraged to view and comment on the draft Transport Strategy through a variety of ways. These are outlined in section 5 of this report.

## **5. Communications**

**5.1** There are six target audiences which SCR will seek to communicate and engage with. These are:

- Partners and Stakeholders (including MPs, local authorities, Parish Councils, Highways England, Network Rail, SYPTTE)
- Businesses (including business representative organisations, the Road Haulage Association, Freight Transport Association and Royal Town Planning Institute)
- Transport Operators (including bus and rail franchise operators and Peel Airports)
- Special Interest Groups (including Friends of the Earth, British Parking Association, Natural England and the Town and Country Planning Association)
- Consumer Groups (including Transport Focus, Campaign for Better Transport, Sustrans, Tenants and Residents Associations, Carers Associations, AGE UK and disability groups)
- Members of the Public

**5.2** A joint letter from the SCR Combined Authority and LEP Boards Chairmen on the Transport Strategy consultation will be distributed at the start of the consultation period to known contacts for the target audiences. The letter will be shared with the broadcast media and written press.

**5.3** The SCR website will have a dedicated section on the Transport Strategy which provides access to background information, a short animated video, the draft strategy, the integrated assessment, and the evidence informing the strategy's development. The website will explain the methods that can be used to submit views and comments on the draft strategy, including a link to an electronic survey.

- 5.4** Broadcast and social media will be a vital method for reaching members of the public. A social media campaign will run throughout the consultation period, with regular tweets and posts to encourage the submission of comments.
- 5.5** Target audiences will also be able to comment on the draft Transport Strategy in person through a series of events. These events will begin with a special launch event with a panel of experts. Up to four further events will be held in each of the four South Yorkshire local authority over the course of the 12-week consultation period.

## **6. Appendices/Annexes**

- 6.1** Sheffield City Region Transport Strategy – Consultation Plan

|                      |  |
|----------------------|--|
| <b>REPORT AUTHOR</b> | <b>David Budd</b>  |
| <b>POST</b>          | <b>Assistant Director - Transport</b>  |
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| Telephone            | <b>0114 220 3445</b>   |

Background papers used in the preparation of this report are available for inspection at:

11 Broad Street West, Sheffield S1 2BQ

Other sources and references:

## Transport Strategy Refresh – Consultation Plan

## Pre-Consultation (up to 10 November 2017)

| What  | Target Audience   | How   | Who   | When        | Completed |
|---|-------------------|---|---|-------------|-----------|
| <b>Survey/<br/>Questionnaire</b><br><br>£408                        | Internal Exercise | Survey questions identified for stakeholder survey & public survey  | SCR Policy                                    | 10 Nov 2017 |           |
|   |                   | Electronic survey designed on Survey Monkey   | SCR Policy                                    | 10 Nov 2017 |           |
|   |                   | Weblink to survey embedded in SCR website   | SCR Strategic Corporate Affairs               | 10 Nov 2017 |           |
|   |                   | Weblink to survey shared with SYPTE and SCR Local Authorities   | SCR Policy & SCR Programme Commissioning      | 10 Nov 2017 |           |
|   |                   | QR code created for survey link to use on promotional material  | SCR Policy                                    | 10 Nov 2017 |           |
| <b>Marketing &amp;<br/>Promotional<br/>Materials</b><br><br>£10,250 | Internal Exercise | Tender issued for procurement of marketing materials for promotion of the consultation <ul style="list-style-type: none"> <li>Production of a 90 second animated video</li> <li>Design and booking of adverts on social media sites and/or radio, written press</li> <li>Design and production of 2 banners and leaflets</li> </ul> | SCR Strategic Corporate Affairs/SCR Contracts | 10 Nov 2017 |           |
|   |                   | Communications Toolkit produced for partners and stakeholders eg. tweets, posts, newsletter articles, hashtags  | SCR Policy                                    | 10 Nov 2017 |           |
| <b>Events<br/>Programme</b><br><br>£nil                             | Internal Exercise | Date set for 2 Consultation Events (Launch & Summing-Up)  | Transport Strategy Working Group              | 10 Nov 2017 |           |
|   |                   | Date set for a joint workshop on SCR strategies eg. HS2 Growth Strategy and/or Inclusive Industrial Strategy  | SCR Policy & SCR Programme Commissioning      | 10 Nov 2017 |           |
|   |                   | Arrangements made with SCR local authorities to present the draft Transport Strategy to Council Cabinets and/or Council Transport Group meetings  | Transport Strategy Working Group              | 10 Nov 2017 |           |
|   |                   | Arrangements made to present the draft Transport Strategy at Parish Council meetings  | SCR Programme Commissioning                   | 10 Nov 2017 |           |
|   |                   | Arrangements made with business representative organisations to present the draft Transport Strategy to their business members at events/meetings   | SCR Policy                                    | 10 Nov 2017 |           |

| What   | Target Audience   | How   | Who                                      | When        | Completed |
|--|---|---|--|-------------|-----------|
| <b>Joint Letter from CA &amp; LEP Boards</b><br><br>£nil | <ul style="list-style-type: none"> <li>Statutory Consultees</li> <li>Partners &amp; Stakeholders</li> <li>Transport Operators</li> </ul>  | Joint letter from the SCR CA and LEP Board Chairmen on the Transport Strategy consultation drafted  | SCR Strategy and Corporate Affairs       | 8 Nov 2017  |           |
|  |   | Letter distributed to statutory consultees, partners and stakeholders with the draft Transport Strategy consultation document under embargo   | SCR Strategy and Corporate Affairs/SYPTE | 10 Nov 2017 |           |
|  |   | Letter distributed to broadcast media and written press with the draft Transport Strategy consultation document under embargo   | SCR Strategic Corporate Affairs          | 10 Nov 2017 |           |
| <b>SCR Website</b><br><br>£nil                           | <ul style="list-style-type: none"> <li>Statutory Consultees</li> <li>Partners &amp; Stakeholders</li> <li>Businesses</li> <li>Transport Operators</li> <li>Special Interest Groups</li> <li>Transport Consumer Groups</li> <li>Members of the Public</li> </ul> | Webpage for the Transport Strategy created on the SCR website   | SCR Strategic Corporate Affairs          | 10 Nov 2017 |           |
|  |   | Introductory text written on the Transport Strategy; why it is important to residents and businesses, why we're consulting, and why people should respond   | SCR Strategic Corporate Affairs          | 10 Nov 2017 |           |
|  |   | Information on how to request the documents in accessible formats eg. Braille, Large Print, hard copy   | SCR Strategic Corporate Affairs          | 10 Nov 2017 |           |
|  |   | Information on how to respond to the consultation: <ul style="list-style-type: none"> <li>Embedded weblink to electronic survey</li> <li>Dedicated email address</li> <li>SCR Postal address and Phone Number</li> <li>Consultation Closing Procedure (Deadline dates and times for responses)</li> </ul>   | SCR Strategic Corporate Affairs          | 10 Nov 2017 |           |
|  |   | Links to draft Transport Strategy Documents embedded in the webpage: <ul style="list-style-type: none"> <li>Draft SCR Transport Strategy</li> <li>Integrated Assessment</li> <li>Habitats Regulations Assessment</li> <li>Evidence Base documents (by section)</li> <li>Consultation Meeting and Events Schedule</li> <li>Overview of the Consultation Process</li> <li>Text/printable version of survey/questionnaire</li> </ul> | SCR Strategic Corporate Affairs          | 10 Nov 2017 |           |
|  |   | Statement on process of developing the Implementation Plan and identifying financial sources  | SCR Programme Commissioning              | 10 Nov 2017 |           |



12-Week Consultation Period (13 November 2017 – 5 February 2018)

| What   | Target Audience   | How   | Who  | When                | Completed |
|--|---|---|--|---------------------|-----------|
| <b>Survey/<br/>Questionnaire</b><br><br>£nil                     | <ul style="list-style-type: none"> <li>Statutory Consultees</li> <li>Partners &amp; Stakeholders</li> <li>Businesses</li> <li>Transport Operators</li> <li>Special Interest Groups</li> <li>Transport Consumer Groups</li> <li>Members of the Public</li> </ul> | Survey link goes live   | SCR Strategic Corporate Affairs                                | 13 Nov 2017         |           |
|  |   | Survey link promoted through press, tweets and posts on social media  | SCR Strategic Corporate Affairs & Partners                     | Nov 2017 – Feb 2018 |           |
|  |   | Volume of responses from each target group monitored on a weekly basis  | SCR Strategic Corporate Affairs                                | Nov 2017 – Feb 2018 |           |
|  |   | Targeted tweets and emails to solicit responses from those target groups with low-level response rates  | SCR Strategic Corporate Affairs                                | Nov 2017 – Feb 2018 |           |
| <b>Events<br/>Programme</b><br><br>£4,342                        | <ul style="list-style-type: none"> <li>Statutory Consultees</li> <li>Partners &amp; Stakeholders</li> <li>Businesses</li> <li>Transport Operators</li> <li>Special Interest Groups</li> <li>Transport Consumer Groups</li> <li>Members of the Public</li> </ul> | Consultation Event (Launch) held in Sheffield with an expert panel and mobile voting/snap poll  | SCR Strategic Corporate Affairs                                | Dec 2018            |           |
|  |   | Consultation Event (Summing-Up) held in Doncaster and mobile voting/snap poll   | SCR Strategic Corporate Affairs                                | Jan 2018            |           |
|  |   | Draft Transport Strategy presented at pre-scheduled meetings/events: <ul style="list-style-type: none"> <li>Council Cabinets</li> <li>Council Transport Group meetings</li> <li>Parish Councils</li> <li>Business representative organisations (eg. Chambers of Commerce, FSB, EEF, Institute of Directors, CBI)</li> </ul> | SCR Programme Commissioning & Transport Strategy Working Group | Nov 2017 – Feb 2018 |           |
| <b>Marketing &amp;<br/>Promotional<br/>Materials</b><br><br>£nil | <ul style="list-style-type: none"> <li>Businesses</li> <li>Special Interest Groups</li> <li>Transport Consumer Groups</li> <li>Members of the Public</li> </ul>   | Animated video embedded in SCR website and promoted and shared through a press release and social media   | SCR Strategic Corporate Affairs                                | 22 Dec 2017         |           |
|  |   | Adverts placed on social media sites and/or radio, written press  | Appointed Consultants  | Nov 2017 – Feb 2018 |           |
|  |   | Banners displayed at consultation events/meetings/presentations   | SCR Strategic Corporate Affairs                                | Nov 2017 – Feb 2018 |           |
|  |   | Leaflets distributed and displayed at consultation events and in public places eg. transport interchanges, Council owned businesses, business centres/hubs  | Partners & Stakeholders  | Nov 2017 – Feb 2018 |           |

| What  | Target Audience   | How   | Who                             | When                | Completed |
|---|---|---|---------------------------------|---------------------|-----------|
| <b>Accessible Documentation</b><br><br>£tbc | <ul style="list-style-type: none"> <li>• Statutory Consultees</li> <li>• Partners &amp; Stakeholders</li> <li>• Businesses</li> <li>• Transport Operators</li> <li>• Special Interest Groups</li> <li>• Transport Consumer Groups</li> <li>• Members of the Public</li> </ul> | Draft Transport Strategy consultation document published in accessible formats (eg. Braille, Large Print, hard copy) for use at consultation events through advanced request – access requirements collected at time of event booking   | SCR Strategic Corporate Affairs | On request          |           |
| <b>Social Media</b><br><br>£nil             | <ul style="list-style-type: none"> <li>• Statutory Consultees</li> <li>• Partners &amp; Stakeholders</li> <li>• Businesses</li> <li>• Transport Operators</li> <li>• Special Interest Groups</li> <li>• Transport Consumer Groups</li> <li>• Members of the Public</li> </ul> | Promotional campaign delivered through SCR Twitter, Facebook and LinkedIn feeds: <ul style="list-style-type: none"> <li>• Tweets on the draft Transport Strategy and consultation process pre-scheduled to go out several times a week</li> <li>• Posts on the draft Transport Strategy consultation published at regular points throughout the consultation</li> <li>• Embedded links to the survey and draft Transport Strategy document</li> <li>• Embedded 'sticky content' eg. video and infographics on transport statistics for SCR to encourage re-tweets, likes and comments on the SCR Transport Strategy</li> <li>• Click-through links to SCR website, consultation event booking system</li> <li>• Set of hashtags used to track and monitor re-tweets, comments and coverage</li> </ul> | SCR Strategic Corporate Affairs | Nov 2017 – Feb 2018 |           |
|   |   | Data from SCR social media feeds (eg. comments, likes, shares, re-tweets) regularly analysed to ascertain the coverage obtained and target audiences reached  | SCR Strategic Corporate Affairs | Nov 2017 – Feb 2018 |           |

Post Consultation (6 February onwards)

| What   | Target Audience   | How   | Who  | When        | Completed |
|--|---|---|--|-------------|-----------|
| <b>Consultation Responses</b><br><br>£nil      | Internal Exercise   | Survey/Questionnaire responses sorted by target audience eg. stakeholders, businesses, public   | SCR Programme Commissioning                                    | 6 Feb 2018  |           |
|  |   | Verbal responses (ie. through meetings, events, workshops) logged and sorted by target audience   | SCR Programme Commissioning                                    | 6 Feb 2018  |           |
|  |   | Written submissions logged and sorted by target audience  | SCR Programme Commissioning                                    | 6 Feb 2018  |           |
|  |   | Responses analysed for common themes and consensus views and categorised: <ul style="list-style-type: none"> <li>Response to be reflected in final strategy</li> <li>Response to be included in Local Transport Plans/Strategies</li> <li>Response to be included in Implementation Plan</li> <li>Response requiring discussion and decision by SCR Transport Executive Board</li> <li>Response not upheld</li> </ul> | SCR Programme Commissioning & Transport Strategy Working Group | 9 Feb 2018  |           |
|  |   | Amendments to the text in the Transport Strategy agreed with the Transport Strategy Working Group and sent to Arup  | SCR Programme Commissioning                                    | 16 Feb 2018 |           |
| <b>Consultation Outcome Report</b><br><br>£nil | <ul style="list-style-type: none"> <li>Statutory Consultees</li> <li>Partners &amp; Stakeholders</li> <li>Businesses</li> <li>Transport Operators</li> <li>Special Interest Groups</li> <li>Transport Consumer Groups</li> <li>Members of the Public</li> </ul> | Report written on the outcome of the consultation process and published on the SCR website: <ul style="list-style-type: none"> <li>Summary of consultation responses</li> <li>List of respondents</li> <li>How consultation responses have been actioned</li> <li>How the SCR Transport Strategy has been refined as a result of the consultation</li> </ul>  | SCR Programme Commissioning & SCR Strategic Corporate Affairs  | 28 Feb 2018 |           |
| <b>Strategy Refinement</b><br><br>£nil         | Internal Exercise   | Text content of SCR Transport Strategy amended based on analysis of consultation responses  | Arup   | 1 Mar 2018  |           |
|  |   | Final text version of Transport Strategy presented to CA Board for approval and sign-off  | SCR Programme Commissioning                                    | 9 Mar 2018  |           |
|  |   | Integrated Assessment finalised   | Arup   | 19 Mar 2018 |           |
|  |   | SCR Transport Strategy graphically designed   | Arup   | 19 Mar 2018 |           |

| What                                    | Target Audience   | How   | Who  | When         | Completed |
|---|---|---|--|--------------|-----------|
| <b>Implementation Plan</b><br><br>£nil  | <ul style="list-style-type: none"> <li>Statutory Consultees</li> <li>Partners &amp; Stakeholders</li> <li>Businesses</li> <li>Transport Operators</li> <li>Special Interest Groups</li> <li>Transport Consumer Groups</li> <li>Members of the Public</li> </ul> | Implementation Plan drafted to include: <ul style="list-style-type: none"> <li>Projects/interventions identified in the SCR Transport Prospectus May 2017</li> <li>Projects/interventions identified through the Integrated Public Transport Network study</li> <li>Projects/interventions proposed through the consultation process</li> </ul> | SCR Programme Commissioning & Transport Strategy Working Group | 23 Feb 2018  |           |
|   |   | Draft Implementation Plan circulated to partners, stakeholders, Transport Operators and Transport Consumer Groups for comment   | SCR Programme Commissioning                                    | 23 Feb 2018  |           |
|   |   | Draft Implementation Plan posted on the SCR website for review and comment for a 4-week period (closing date: 23 March 2018)  | SCR Strategic Corporate Affairs                                | 23 Feb 2018  |           |
|   |   | Comments from consultation on Implementation Plan discussed and amendments agreed   | Transport Strategy Working Group                               | 6 April 2018 |           |
|   |   | Draft Implementation Plan circulated to partners for comment prior to CA Board  | SCR Programme Commissioning                                    | 11 May 2018  |           |
|   |   | Draft version of Implementation Plan presented to CA Board for approval and sign-off  | SCR Programme Commissioning                                    | 11 June 2018 |           |
|   |   | Finalised Implementation Plan published electronically on the SCR website   | SCR Strategic Corporate Affairs                                | 18 June 2018 |           |
| <b>Strategy Publication</b><br><br>£nil | <ul style="list-style-type: none"> <li>Statutory Consultees</li> <li>Partners &amp; Stakeholders</li> <li>Businesses</li> <li>Transport Operators</li> <li>Special Interest Groups</li> <li>Transport Consumer Groups</li> <li>Members of the Public</li> </ul> | Finalised SCR Transport Strategy and Implementation Plan published electronically on the SCR website, Twitter, Facebook and LinkedIn feeds  | SCR Strategic Corporate Affairs                                | 23 Mar 2018  |           |
|   |   | SCR Transport Strategy published in hard copy for distribution to partners and stakeholders and wider circulation   | SCR Strategic Corporate Affairs                                | 23 Mar 2018  |           |
|   |   | Press release announcing the publication of the SCR Transport Strategy and Implementation Plan as the new SCR Local Transport Plan  | SCR Strategic Corporate Affairs                                | 23 Mar 2018  |           |

**Purdah for Local Authority and Combined Authority Mayoral Elections  
26 March – 3 May 2018 inclusive**