Committee report

Fastlink Scheme Evaluation

Committee Strategy & Programmes

Date of meeting 21 May 2021 **Date of report** 4 May 2021

Report by Assistant Chief Executive

1. Object of report

The object of this report is to update the Committee on the evaluation of the Fastlink scheme.

2. Background

Members will recall the Fastlink scheme was approved by the Scottish Government in 2010, with a funding contribution of up to £40m[1]. The scheme was completed in 2015, delivering a bus priority route between Glasgow City Centre and the Queen Elizabeth University Hospital (QEUH). The Fastlink route map is included in Appendix 1 for reference.

The Fastlink scheme was delivered in partnership with Glasgow City Council as Delivery Agent, with SPT overseeing the scheme as Project Sponsor. A statutory Quality Partnership Scheme (sQPS)[2] was also implemented, requiring bus operators providing local bus services on the Fastlink route corridor to operate in accordance with specific standards set out by the Scheme.

SPT awarded a Network Enhancement Grant to Stagecoach West Scotland in June 2015 to support the extension of their X19 Service to operate on the Fastlink corridor utilising Euro 6 Diesel Buses and delivering a frequent service (up to 6 buses an hour in each direction) between Glasgow City Centre and the Queen Elizabeth University Hospital[3].

A key requirement of the funding award was that a post-completion evaluation of the Fastlink project was undertaken. Completion of the Fastlink evaluation coincides with the recent launch of the £500m Bus Partnership Fund by Transport Scotland.

3. Update

Following dialogue with Transport Scotland and Glasgow City Council the scope of the Fastlink evaluation was agreed. Subsequently consultants were appointed by SPT to undertake the evaluation. The scope of the evaluation was framed around the Fastlink scheme objectives, detailed as follows:

[1] http://www.spt.co.uk/documents/sp300109_agenda6.pdf
http://www.spt.co.uk/documents/sp160911_agenda7.pdf
[2] Further details are available at; http://www.spt.co.uk/wmslib/Documents_Bus/fastlink-sqp.pdf?3
[3] Further details are available at; http://www.spt.co.uk/documents/op260615_agenda13.pdf

- Objective 1: To reduce travel time (target of 20%) and the cost of travel to existing and new developments along the Clyde corridor;

- Objective 2: To improve accessibility, and thereby help to reduce social exclusion, to key areas, facilities and services along the Clyde Corridor such as healthcare, education, employment and tourist attractions;

- Objective 3: To support growth, development and regeneration along the Clyde Corridor in the residential, commercial and retail sectors;

- Objective 4: To ensure high quality integration of new and existing public transport along the Clyde Corridor;

- Objective 5: To improve safety, particularly for vulnerable public transport users, along the Clyde Corridor; and

- Objective 6: To reduce the adverse environmental effects of transport along the Clyde Corridor through modal shift, sustainable trip patterns and reducing the growth rate of congestion on main corridors.

Evidence utilised to assess delivery of objectives included quantitative data, such as bus journey times, as well as qualitative evidence from consultation with key stakeholders, such as SPT, Glasgow City Council, and bus operators Stagecoach and McGill's. Unfortunately, planned face to face customer engagement was not possible due to the Covid 19 Pandemic.

Formal guidance on the evaluation of such bus priority schemes is not yet available. Therefore, the evaluation draws upon best practice from both rail and road projects, and was tailored for the needs of this commission. The evaluation was undertaken by the consultants between January and April 2021.

The Executive Summary of the evaluation is detailed in Appendix 2 for reference.

In terms of key findings, the Executive Summary notes the following on delivery of the scheme objectives;

- Objective 1 was largely achieved. Following the implementation of the Core Scheme (2014/15), journey time savings of 15.6% (PM, October) on a round trip were identified in the Route Performance Report. The City centre improvements incremented this by a further saving of 1.8% (PM, October). The overall savings of 17.4%, fell slightly short of the 20% target. There was also evidence of reduced journey time variability on the City Centre section following improvements in this area.

- In respect of Objective 2; A review of service frequency and coverage indicated that Fastlink improved transport provision to healthcare at the QEUH site and employment, services and tourist attractions in the Clyde corridor. Public transport accessibility analysis using TRACC software, alongside analysis of Scottish Index of Multiple Deprivation (SIMD) data has indicated that this translated into noticeable improvements in accessibility, which disproportionately benefited deprived communities, thus opening opportunities to reduce social exclusion.

- In respect of Objective 3; Examination of population estimates, business stocks and sites statistics and a review of retail occupancy data showed signs of regeneration in Govan, albeit it is difficult to relate this directly to Fastlink and it has been noted by stakeholders that understanding regeneration impacts would require monitoring over a longer-term period. However, the scheme has supported access for employees, patients and visitors travelling to the QEUH and existing destinations in the Pacific

Quay area, including the Science Centre, STV studios and BBC Scotland as well as new hotel, mixed use, office and residential developments in the Clyde corridor, generating some benefits against Objective 3.

- In respect of Objective 4; Integration was improved through integrated planning with the delivery of the Govan interchange project, which provided high quality, direct interchange facilities including a new subway entrance and a pedestrian crossing linking to the Fastlink stop on Golspie Street, although this is not a direct impact of the investment brought forward as part of Fastlink. Consideration was also given to integration with cyclists through provision of cycle parking and linkages to nearby quietways and the north side of the river via the Clyde Tunnel and through permitting shared use of bus lanes to the north of Festival Park and of the Clyde Arc bridge. However, consultation with stakeholders noted that in line with best practice, consideration for active modes should start in the early stages of the design process in the development of future schemes.

- In respect of Objective 5; With regards to safety, whilst overall accident and casualty figures dropped following the implementation of the Core scheme, comparison with Glasgow figures showed limited evidence that this was directly attributable to Fastlink. The report also notes, however that the City Centre improvements resulted in noticeable improvements in safety at the adjacent hotspots at the junctions of Argyle Street, Union Street and Jamaica Street; and of Union Street, Gordon Street and Renfield Street, both in terms of the number and severity of accidents.

- In respect of Objective 6; The environmental effects of Fastlink could not be assessed conclusively due to limitations in the availability of key data sources describing patronage, traffic flows, emissions and modal shift. However, it is to be noted that the Fastlink service was the first in Scotland to deploy Euro VI vehicles.

In terms of value for money, the Executive Summary notes that Fastlink was delivered significantly under original budget estimates. In relation to the Benefit Cost Ratio out-turn, this was positive albeit less than forecast, with caveats that uncertainty existed in these results due to limited availability of patronage data, differences in service routing in comparison with assumptions, and limited data describing background growth within the original model estimates.

Whilst noting the overall success of Fastlink scheme, the Executive Summary also makes a number of useful recommendations for improvements to the future evaluation of similar bus priory projects, based upon lessons learned from the project partners including bus operators. Noting the absence of bus specific national evaluation guidance, the following is recommended;

- To undertake process evaluation soon after the scheme opening/completion;

- To define SMART objectives (Specific, Measurable, Achievable, Realistic and Timebound) in order to help with the measurement of impacts;

- Give greater consideration to monitoring and evaluation during scheme appraisal and design, and;

- Collection of baseline data and ongoing monitoring following completion.

The above recommendations have been shared with Transport Scotland for consideration and are timely given the recent launch of the £500m Bus Partnership Fund. With substantial applications to the fund expected across Scotland, including those submitted by Glasgow

City Region and Ayrshire Local Authorities respectively[4], the development of detailed national guidance on the evaluation of bus priority schemes is increasingly required. SPT officers continue to engage with Transport Scotland on the roll out of the Bus Partnership Fund, future project delivery and any associated guidance.

Notably, plans to extend the Fastlink route into Renfrewshire, alongside the development of further Fastlink bus priority corridors, are included within the Glasgow City Region application to the Bus Partnership Fund. The Fastlink scheme evaluation therefore provides a very useful evidence base to support and guide the development and future success of such initiatives, should they be approved by the Scottish Government in due course.

4. Committee action

The Committee is asked to note the content of this report.

5. Consequences

Policy consequences	*The objectives of Fastlink are in line with the Regional Transport Strategy.*
Legal consequences	*None directly.*
Financial consequences	*Delivery of the Fastlink Scheme was achieved under the project budget.*
Personnel consequences	*None directly.*
Equalities consequences	*None directly.*
Risk consequences	*None directly.*

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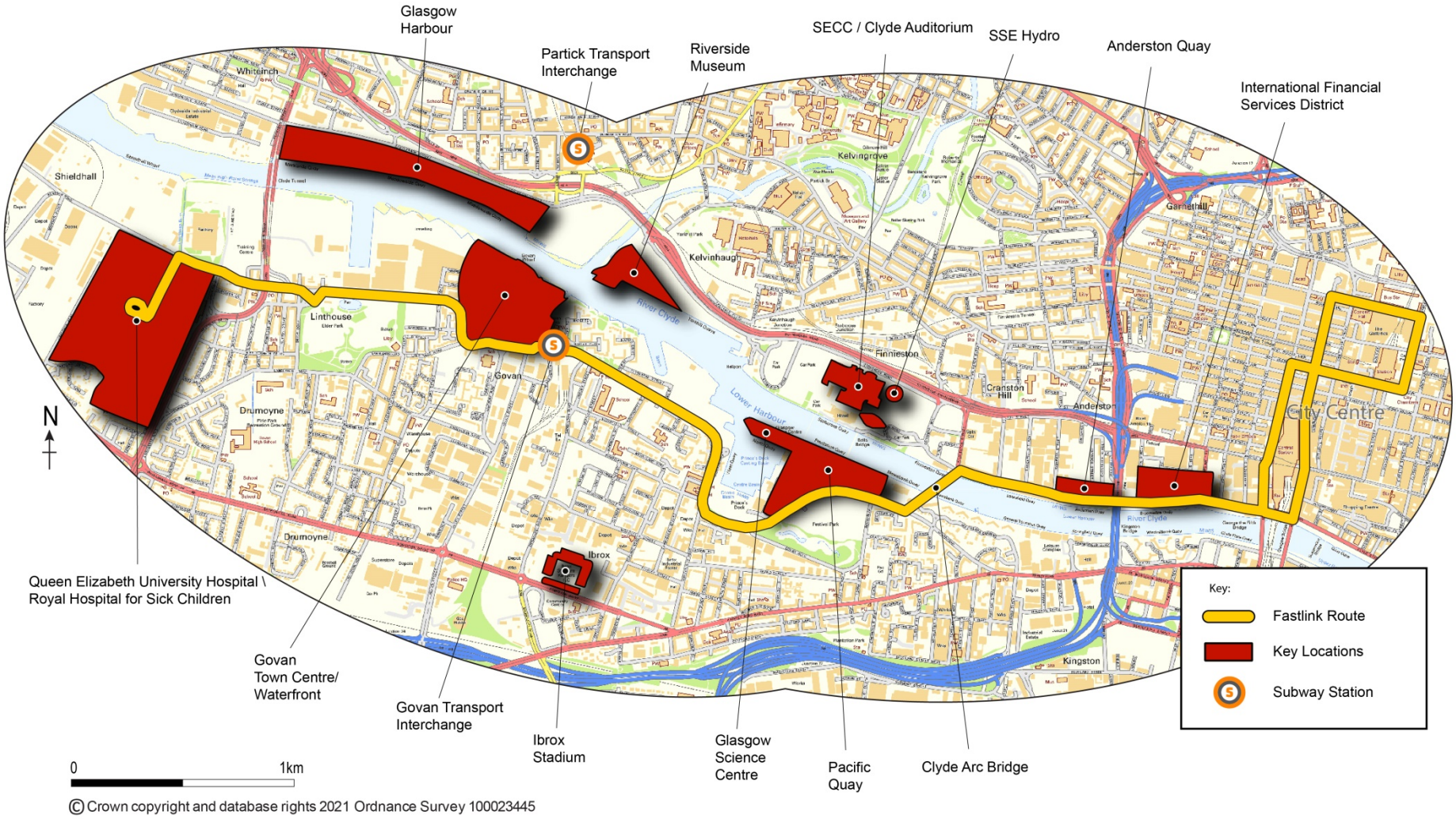
For further information, please contact Gordon Dickson, Head of Bus Strategy & Delivery on 0141 333 3407.

[4] http://www.spt.co.uk/documents/latest/Ops300421_Agenda7.pdf

Appendix 1



Appendix 2

Fastlink Evaluation

Executive Summary

SPT

Project Number: 6062596

December 2020

Executive Summary

Introduction

Fastlink is a bus rapid transit system along the Clyde corridor in Glasgow. Operated under the terms of a Statutory Quality Agreement that commenced in June 2015, it was developed to provide good public transport accessibility to the new Queen Elizabeth University Hospital (QEUH), support regeneration and improve the public transport offering on one of the few corridors in the city without rail provision.

SPT worked with Glasgow City Council (GCC) in developing the business case, the focus of which was the route between the city centre and the QEUH, via Govan and the media village, supporting access to the hospital and the regeneration of the Clyde corridor. The scheme was delivered by GCC contractors.

Under the terms of the Statutory Quality Partnership, minimum vehicle and service standards have been set for services operational on the route, including use of Euro 6 buses (as a minimum) and a requirement to operate seven days a week on the segregated sections of route and at least hourly on weekdays between 5am and 11pm.

The Scottish Government committed £40m to support scheme development, allied to the decision to build the QEUH. Stagecoach, the operator of the Fastlink (X19) service received Network Enhancement Grant funding to support the purchase of high quality vehicles to operate the route, with the NHS contributing £1.5m to the scheme including through delivery of a transport interchange at the hospital, approach roads, and bus lanes and signalling within the site.

Following the launch of the Scottish Government's £500 million Bus Partnership Fund, there is heightened interest in capturing the lessons learned from Fastlink in order to inform the delivery of future bus priority improvements both regionally and across the country. AECOM were subsequently commissioned by SPT to carry out a Stage 2 evaluation of Fastlink with the aim of assessing to what extent the scheme has met its objectives and delivered value for money as envisaged in the final business case for the project. As there is currently no formal best practice guidance for the evaluation of bus schemes in Scotland, the evaluation has also sought to provide advice aimed at securing more robust evaluation of bus-related schemes in the future.

Evaluation Approach

The study undertook process evaluation to explore whether the scheme was delivered as intended and identify the lessons learnt during implementation, and outcome evaluation in order to understand if the anticipated benefits as set out by the Scheme objectives were realised.

Evidence included quantitative data, such as bus journey times, as well as qualitative evidence from consultation with key stakeholders. The evaluation also considered contextual changes during the evaluation period, including wider traffic patterns as well as other delivered schemes such as Govan Station and City Centres improvements. It should be noted that there were substantial gaps in the datasets informing the evaluation, while passenger surveys planned as part of the evaluation had to be cancelled due to the COVID-19 pandemic; these limitations have affected the ability to undertake a sound engineering and contextual analysis of key factors and conclude the evaluation in specific areas.

As set out above, while there is currently no guidance setting out best practice for the evaluation of bus schemes in Scotland, the evaluation has drawn on evaluation best practice for other modes, including aspects of Transport Scotland's guidance for the evaluation of rail interventions, whilst amending as required, both in order to maintain a measure of proportionality with a view of the scale of the intervention and to take account of the availability of data sources.

Scheme Objectives

The Fastlink objectives against which this evaluation has been framed were as follows:

- Objective 1: To reduce travel time (target of 20%) and the cost of travel to existing and new developments along the Clyde corridor;
- Objective 2: To improve accessibility, and thereby help to reduce social exclusion, to key areas, facilities and services along the Clyde Corridor such as healthcare, education, employment and tourist attractions;

- Objective 3: To support growth, development and regeneration along the Clyde Corridor in the residential, commercial and retail sectors;
- Objective 4: To ensure high quality integration of new and existing public transport along the Clyde Corridor;
- Objective 5: To improve safety, particularly for vulnerable public transport users, along the Clyde Corridor; and
- Objective 6: To reduce the adverse environmental effects of transport along the Clyde Corridor through modal shift, sustainable trip patterns and reducing the growth rate of congestion on main corridors.

Key Findings

Delivery of Scheme Objectives

Objective 1 was largely achieved. Following the implementation of the Core Scheme (2014/15), journey time savings of 15.6% (PM, October) on a round trip were identified in the Route Performance Report. The City centre improvements incremented this by a further saving of 1.8% (PM, October). The overall savings of 17.4%, fell slightly short of the 20% target. There was also evidence of reduced journey time variability on the City Centre section following improvements in this area.

Review of service frequency and coverage indicated that Fastlink improved transport provision to healthcare at the QEUH site and employment, services and tourist attractions in the Clyde corridor. Public transport accessibility analysis using TRACC software, alongside analysis of Scottish Index of Multiple Deprivation (SIMD) data has indicated that this translated into noticeable improvements in accessibility, which disproportionately benefited deprived communities, thus opening opportunities to reduce social exclusion (Objective 2).

Examination of population estimates, business stocks and sites statistics and a review of retail occupancy data showed signs of regeneration in Govan, albeit it is difficult to relate this directly to Fastlink and it has been noted by stakeholders that understanding regeneration impacts would require monitoring over a longer-term period. However, the scheme has supported access for employees, patients and visitors travelling to the QEUH and existing destinations in the Pacific Quay area, including the Science Centre, STV studios and BBC Scotland as well as new hotel, mixed use, office and residential developments in the Clyde corridor, generating some benefits against Objective 3.

Integration (Objective 4) was improved through integrated planning with the delivery of the Govan interchange project, which provided high quality, direct interchange facilities including a new subway entrance and a pedestrian crossing linking to the Fastlink stop on Golspie Street, although this is not a direct impact of the investment brought forward as part of Fastlink. Consideration was also given to integration with cyclists through provision of cycle parking and linkages to nearby quietways and the north side of the river via the Clyde Tunnel and through permitting shared use of bus lanes to the north of Festival Park and of the Clyde Arc bridge. However, consultation with stakeholders noted that in line with best practice, consideration for active modes should start in the early stages of the design process in the development of future schemes.

With regards to safety (Objective 5), whilst overall accident and casualty figures dropped following the implementation of the Core scheme, comparison with Glasgow figures showed limited evidence that this was attributable to Fastlink. The proportion of serious and fatal accidents and casualties increased, although this was largely due to a drop in slight accidents and casualties. Bus accidents and pedestrian casualties spiked immediately after the opening of the Core scheme, and consultation with bus operators highlighted that close work with operators during scheme design is essential in anticipating potential safety issues in the future. Moreover, stakeholder consultation indicated delays to the safety audit process, and timely delivery of road safety audits is recommended in order to better manage any initial adverse impacts in future scheme delivery. However, mitigation brought forward as part of the safety audit process appeared to be effective in subsequent years.

Based on initial data, the City Centre improvements resulted in noticeable improvements in safety at the adjacent hotspots at the junctions of Argyle Street, Union Street and Jamaica Street; and of Union Street, Gordon Street and Renfield Street, both in terms of the number and severity of accidents. KSI ratios in the two locations dropped from 24% and 19% respectively to 0. However, availability of ex-post data was limited to a single year and further monitoring would be required to confirm these impacts.

Overall, the impact of the Core Scheme implementation on road safety objectives is considered neutral following effective mitigation, with the benefit of the scheme largely attributable to the City Centre improvements.

The environmental effects of Fastlink (Objective 6) could not be assessed conclusively due to limitations in the availability of key data sources describing patronage, traffic flows, emissions and modal shift. However, it is to be noted that the Fastlink service was the first in Scotland to deploy ADL E300 Euro VI vehicles.

A summary of the observed outcomes of the Fastlink interventions is presented in the Logic Map overleaf.

Value for Money Assessment

Value for money delivered by the scheme was assessed through an examination of the key contributors to the Benefit Cost Ratio (BCR), namely patronage, journey time savings and scheme costs. Whilst the outturn scheme cost was 15-18% below the forecast, the variance of observed patronage below forecast was larger (43-46% less than forecast). On balance this is likely to result in a reduction in the outturn BCR when compared with the forecast value of 1.82. However, it should be noted that the original patronage forecasts were based on a stand-alone service, whilst the existing Fastlink service (X19) operates in a commercial environment where a number of bus services operate along the route.

Process Evaluation

Process evaluation was undertaken to review the implementation process and capture any lessons learned. This was primarily informed by consultation with the key stakeholders in the implementation and operation of Fastlink. Whilst process evaluation is ideally carried out as soon as possible after scheme opening when the details of the implementation are fresh in mind, the stakeholder contributions assisted in identifying a number of key successes and lessons learned to optimise the implementation of similar interventions in the future.

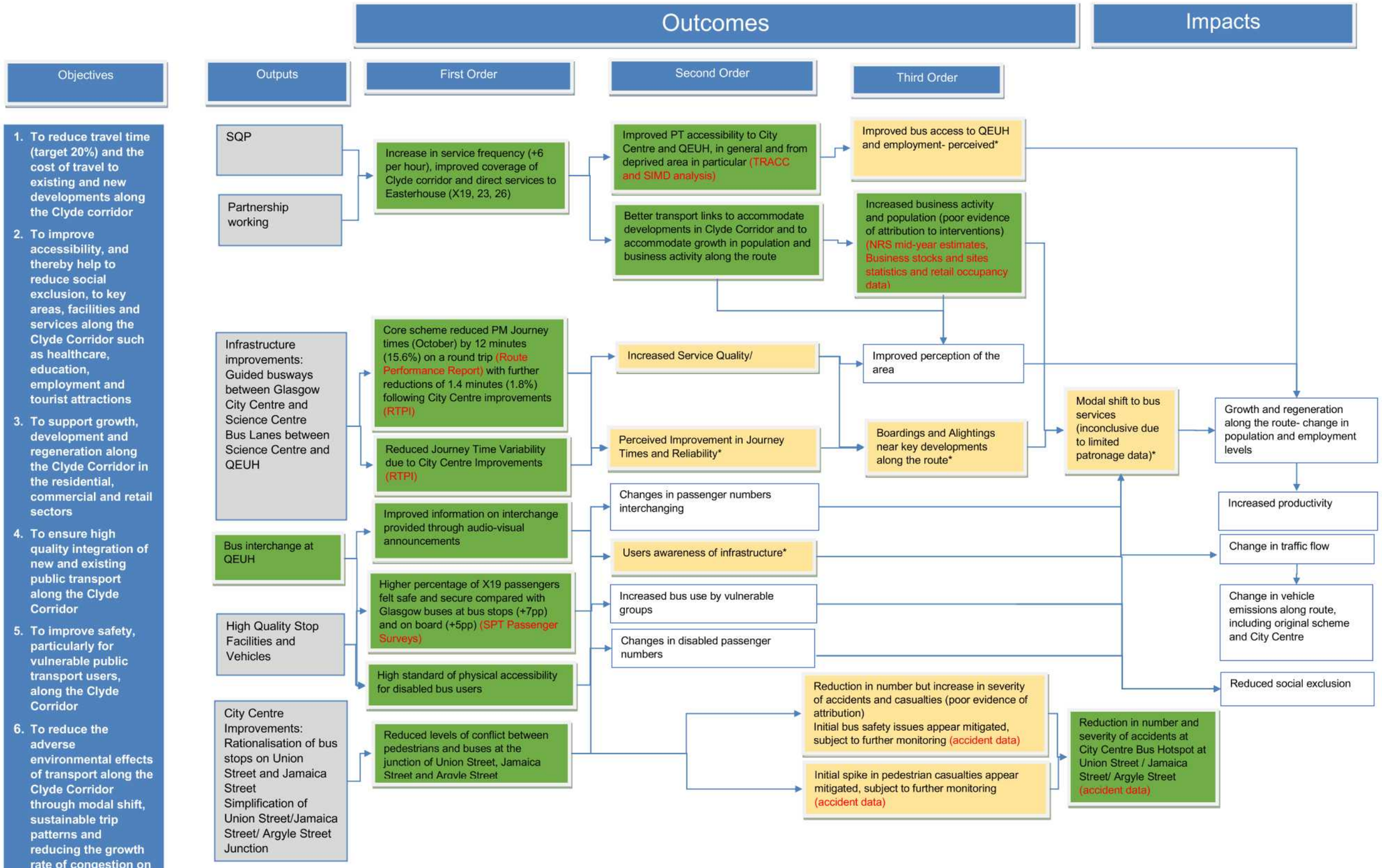
Successful partnership working and governance through a project steering group and day to day working group, including officers from GCC and SPT, was considered instrumental in the successful delivery of the scheme. The scheme was largely delivered on time and below the £40 million cost estimate stated in the Final Business Case.

Similarly, partnership working with bus operators provided valuable inputs to the optimisation of operations. While it was suggested that greater involvement by bus operators at the route selection and detailed design stages, as well as during construction, may have pre-empted issues; partnership working following scheme opening, in particular as part of the City Centre improvements, helped to deliver measures that have supported reduced journey times, improved reliability, enhanced passenger facilities and improved safety.

It was considered that the segregated infrastructure provided on Fastlink sends a strong visible statement of bus priority and quality, which was essential to attracting passenger growth over time and furthering wider social, economic and environmental objectives. Rolling-out this concept to high patronage bus corridors and delivering continuous bus priority across the region was supported, with stakeholders recognising the opportunities provided by the Transport (Scotland) Bill 2019 and the new Bus Partnership Fund. To support the success of future initiatives, the importance of demand management measures, such as tighter parking controls and reduced free parking (as initially proposed around the hospital campus but not realised) was highlighted by a number of stakeholders as a key factor in the potential of bus priority investment to return increased patronage and hence contribute to modal shift.

Delivery partners also acknowledged that developments in best practice, particularly on the placemaking approach to planning and designing public spaces and on better design for active travel, that have come forward since the planning and implementation of Fastlink could maximise the benefits associated with future schemes, particularly with respect to regeneration and promoting better integration in the transport system.

Overall, the role of Fastlink in supporting access to key healthcare facilities in Glasgow was widely acknowledged by partners, not only through servicing the QEUH but also through establishing a frequent, reliable service linking to another of the city's major hospitals, the Royal Infirmary. It was noted that this role has been particularly well-highlighted during the COVID-19 pandemic, which saw the Fastlink service running throughout and offering joint ticketing with other operators' services between the QEUH and City Centre to maintain essential transport provision for key workers, despite reduced frequencies.



Fastlink Outturn Logic Map

Notes: Green: anticipated outcome demonstrated, Yellow: outcome neutral or inconclusive due to limited data availability, White: logical linkage
*Future assessment based on bus passenger surveys was anticipated, but could not go ahead due to the COVID-19 pandemic

Recommendations for Future Evaluation

In the absence of bus specific evaluation guidance, key recommendations aimed at securing more robust evaluation of bus-related schemes in the future have been summarised as part of the evaluation.

Undertake process evaluation soon after scheme opening

Guidance on good practice in transport appraisal universally recommends carrying out process evaluation to capture lessons learned from the implementation of the intervention soon after completion. These timescales are intended to ensure that key personnel involved in scheme delivery remain available to provide inputs and that the key issues affecting scheme delivery can easily be recollected. It is therefore recommended that process evaluation is undertaken soon after scheme completion, ideally within six months of scheme opening.

Define SMART objectives to help with measurement of impacts

Setting out SMART objectives (that is objectives that are Specific, Measurable, Achievable, Realistic, and Time-bound) during the development of a transport intervention assists effective scheme evaluation by providing clear direction on specific impacts to be considered, thus supporting the development of a robust framework of indicators to measure outcomes achieved against the objectives.

Give thought to monitoring and evaluation during scheme appraisal and design

Proposals for the evaluation of the outcomes delivered and performance against the scheme objectives, including the definition of key performance indicators, timescales and responsibilities should be set out during the planning stage to ensure baseline data is collected and records are available to enable the evaluation of transport schemes. Details of the modelling approach and assumptions as well as detailed outputs of the modelling and economic analysis should also be kept at this stage to allow revisiting the BCR and support evaluation of value for money delivered by the scheme.

Collection of baseline data and ongoing monitoring

Monitoring and evaluation should be considered when planning transport interventions to ensure the timely collection of baseline data, including retaining detailed documentation of any data collection and analysis undertaken. Data collection should be scoped to include sufficient detail to enable evaluation of the impacts of specific engineering measures, and hence deliver valuable lessons learned for future implementation. Similarly, monitoring data should be collected in order to ensure that there are no substantial gaps in key datasets to inform the evaluation. This is particularly important in the context of bus interventions where key datasets such as patronage data are not routinely collected. Allocation of appropriate resource and budget to monitoring from the outset is essential in ensuring evaluation is an integral part of the scheme's development and not an afterthought.

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