



Strathclyde Partnership  
for Transport



# Clyde Metro: Case for Change and Network Options

Non-Technical Summary

January 2025



## Introduction

This update is intended to complement the Clyde Metro Case for Change and Emerging Network Options Report, both issued in December 2024. It is a high-level, non-technical overview of the work undertaken by consultants Mott MacDonald, through the most recent stage (Stage 1a) of the Case for Investment for Clyde Metro. For more detailed information and explanations on anything in this update, please refer to those other documents.

Additional information on the wider Clyde Metro Programme can be found in the [Clyde Metro Stakeholder Engagement Note](#).

## Background

Strathclyde Partnership for Transport is leading on behalf of its project partners Glasgow City Council (representing the Glasgow City Region) and Transport Scotland (in an assurance capacity) in the development of the Case for Investment for Clyde Metro. The Case for Investment consists of several workstreams which need to be developed and approved to demonstrate the need and value of delivering a project of the scale of Clyde Metro.

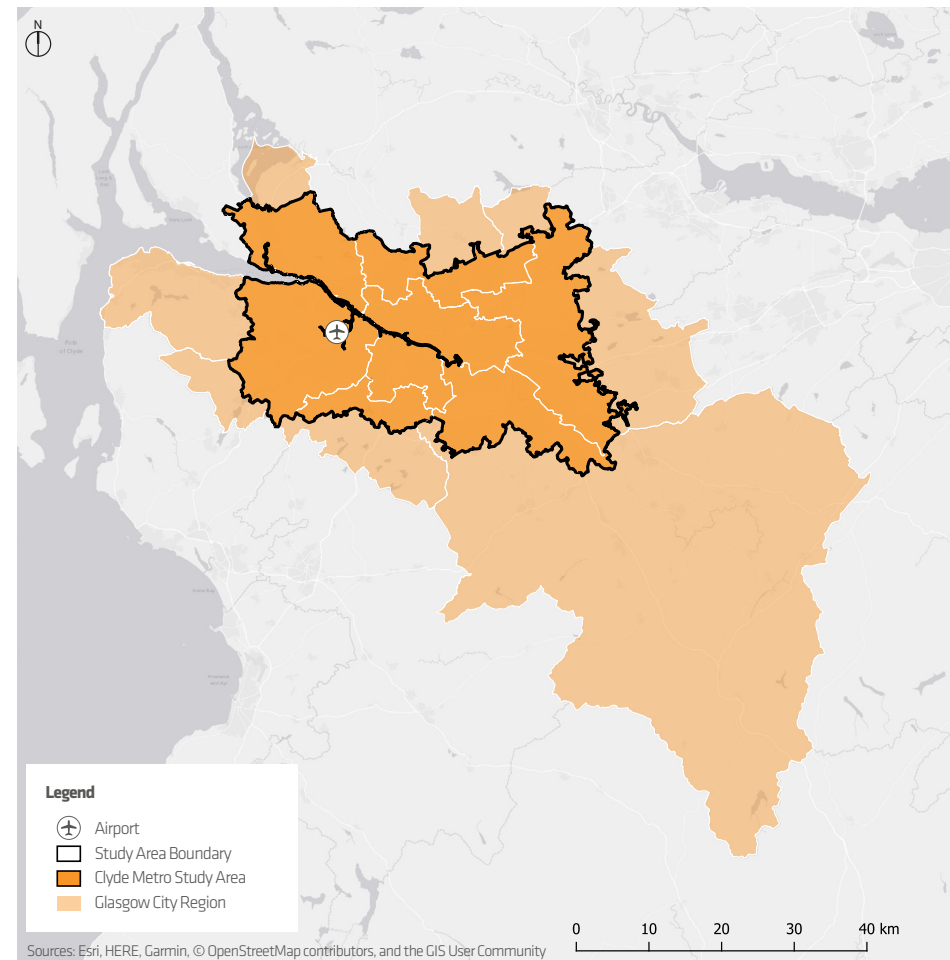
Clyde Metro is a once-in-a-generation opportunity to transform the Glasgow City Region by delivering improvements in connectivity between communities, employment, healthcare, shopping, entertainment venues and other attractions. Clyde Metro will stimulate better access to opportunities and services for all, enabling further investment and supporting future growth across the Glasgow City Region.

Due to the ambitious and transformational scope, Clyde Metro is a long term project which can not be fully built out in the short term. Timescales will clearly be subject to available funding.

## Study Area

Glasgow City Region consists of the Glasgow City Council area plus seven adjoining local authority areas. The study area covers the core urban area of Glasgow and surrounding principal centres within approximately 20km. 15-20km is generally regarded as the extent of a metro system in cities worldwide.

The city region is home to approximately 1.6 million people, 30% of Scotland's total population. Due to people from across Scotland migrating to the region, there is a high proportion of working age people in the area – reflecting the opportunities provided across the Glasgow City Region. Beyond the study area, Clyde Metro will require other modes of transport to provide access to the core network, ensuring that the impact of Clyde Metro extends across the whole of the city region and feed the core network.



## Our Vision for Clyde Metro

The vision confirms that Clyde Metro is not simply a transport scheme but is a transformational project - one intended to transform the lives of all those who live and work within the whole of the Glasgow City Region. The vision for Clyde Metro is what has guided its progress and has been used alongside other measures to assess and develop various network options to find those that best deliver the desired transformational outcomes.

“Our vision is to deliver transformational change for the Glasgow City Region, providing **opportunity for all**<sup>1</sup> through **sustainable**<sup>2</sup>, transport-led, investment. Fundamental to the programme will be integration to achieve **placemaking, regeneration, and densification**<sup>3</sup> and enable a **healthier, fairer and more prosperous**<sup>4</sup> City Region. Investment today will **connect**<sup>5</sup> people with opportunity, **welcome visitors and investors**<sup>6</sup>, reduce **carbon emissions**<sup>7</sup> and provide the platform for the Glasgow City Region to **fulfil its potential**<sup>8</sup> as an **economic powerhouse for all of Scotland**<sup>9</sup>.”

<sup>1</sup> Stakeholder Engagement.

<sup>4</sup> Tackling transport poverty, inequality and deprivation, levelling up locally, regionally, and nationally.

<sup>7</sup> Taking action to address the climate emergency and achieve Net Zero.

<sup>2</sup> Ensuring a Just Transition and adhering to international, national, and regional sustainable development goals.

<sup>5</sup> Bringing more opportunities closer to people and increasing the labour supply for businesses.

<sup>8</sup> Supporting planned development and the next wave of opportunities.

<sup>3</sup> Attracting inward investment.

<sup>6</sup> Capitalising on the City Region's existing offer, vibrancy, and successes.

<sup>9</sup> Acknowledging the importance of the GCR nationally.

## Objectives

Using the vision for Clyde Metro, three key themes and strategic objectives have been identified. The three themes are Economic Development; People and Places; and, Environmental Protection & Enhancement. From these strategic objectives, transformational outcomes that Clyde Metro should deliver were developed.

Strategic Themes	Objectives are to...	Ref.	Transformational Outcomes
 <p><b>Economic Development</b></p>	Support increased inward investment, raising productivity, jobs density and levels of economic activity.	1	Increased productivity with growth in jobs, activity, and output across higher value, target, sectors.
		2	Increased graduate retention/attraction, and increase in overall skills and qualification levels.
		3	Enhanced national and international connectivity via established gateways, linking people and businesses with wider opportunities.
		4	Support the delivery of housing targets to increase labour supply.
 <p><b>People &amp; Places</b></p>	Help create a more equitable, healthier, and happier City Region, with thriving and attractive centres.	5	Address Vacant & Derelict (V&D) land, increase densities, and support Liveable Neighbourhoods.
		6	Assist the regeneration of the principal centres, increasing activity, vitality, and sense of place.
		7	Address social equality and inclusion through enhanced accessibility for all.
		8	Reductions in transport poverty to help diminish levels of deprivation.
		9	Increases in healthy life expectancy, wellbeing, and quality of life.
 <p><b>Environmental Protection &amp; Enhancements</b></p>	Reduce adverse impacts from transport infrastructure and movements on the natural and built environments.	10	Contribute to delivery of Net Zero targets.
		11	Decrease in local air pollutants.

## Network Options

Using more than a hundred different datasets, analysis took place which looked at factors such as population density; areas of deprivation; vacant and derelict land; access to education, hospitals and entertainment; existing public transport network coverage; and, areas with plans for future housing or commercial developments.

From this data it was possible to identify the top trip producers (places that people travel from) and trip attractors (places that people travel to); allowing a comprehensive high-level picture of places which should be connected across the Glasgow City Region to be created. These places were then prioritised, allowing work to begin to look at how best to join these places up, including what potential modes of transport were most suitable to do so.

Priority places to connect were used to form the basis of the transport network corridors, ensuring that the network option designs linked with the project's strategic objectives.

## Modes of transport considered

Four main modes of transport were considered. These are described below. Further assessment of the different modes is needed to confirm the preferred mode or modes for Clyde Metro. This will take place in Case for Investment Stage 2.

- **Bus Rapid Transit** systems use specially designed buses with multiple doors for boarding. They have full-length bus stops equipped with shelters, ticket machines, and passenger information displays. Bus Rapid Transit routes often have dedicated lanes to ensure buses can travel quickly and reliably.



Bus Rapid Transit



Tram



Tram Train



Metro

- **Trams** are likely to be vehicles similar to those found on existing UK systems, for example in Edinburgh (c.43m long); however, lighter vehicles (Very Light Rail) have not been ruled out. Trams run on fixed rails and are designed to travel on-street, sharing roadspace with other traffic and pedestrians.
- **Tram Train** vehicles can operate on a dedicated urban tramway – to serve key areas, while also sharing existing rail infrastructure with freight and conventional trains. Tram Trains can also operate on-street, in a manner similar to conventional trams. Tram Train vehicles will operate on a dedicated urban tramway – to serve key areas, while also sharing existing rail infrastructure with freight and conventional trains.  
  
Collectively Bus Rapid Transit, Tram, and Tram Train are known as Light Rapid Transit, or LRT, a term which you can see in the Network Options maps.
- **Metro** is an off-street light rail system that is typically segregated in its entirety. Metro has several advantages over traditional rail, including higher acceleration and braking rates, the ability to call at more frequent stations and typically has higher capacity carriages with more standing room.

Regardless of preferred modes, Clyde Metro will aim to provide a fully integrated mass transit system across the wider city region. This will be achieved through interactions with existing traditional rail, bus and subway, active travel methods such as walking, wheeling and cycling, and expanded services in places beyond the study area.

## Final Network Options

A part of the Case for Investment Stage 1a was to develop and assess potential network options.

A strategic framework assessment was used to help determine whether potential network options addressed the key objectives and opportunities identified, ensuring that selected network options deliver the Clyde Metro vision.

Priority places were identified and mapped to connect areas either **unserved or underserved by existing public transport**, and places in the study area which would benefit from being better connected and made more accessible through a new or enhanced public transport network.

**Unserved or underserved** areas may have access to existing public transport, but gaps have been identified which show connectivity to other places is poor when compared to the rest of the study area. This could be due to the frequency or capacity of public transport services, or accessibility to complementary modes of transport.

The list of options was refined from a longer list of nine through engagement and feedback from project partner organisations, and key stakeholders including local authorities.

A total of four network options were shortlisted. Whilst similar looking on paper, there are differences in the options, which are explained over the page and in the table below. All of the options are capable of delivering the vision and objectives of Clyde Metro, albeit in different ways. Further stages of the Case for Investment will examine these options in greater detail, resulting in a final optimal network being identified come the end of Case for Investment Stage 2.

The shortlisted options are presented here. Please note that the maps are indicative and are expected to evolve as the project moves through Stage 2 of the Case for Investment. For more details on the four Network Options, please refer to the separate Network Options Report.

In the Stakeholder Engagement Note the network options are listed as A to D, we have reflected both the numbering used in the Network Options Report and the letters used in the Stakeholder Engagement Note below.

### Network Options: Key similarities and differences

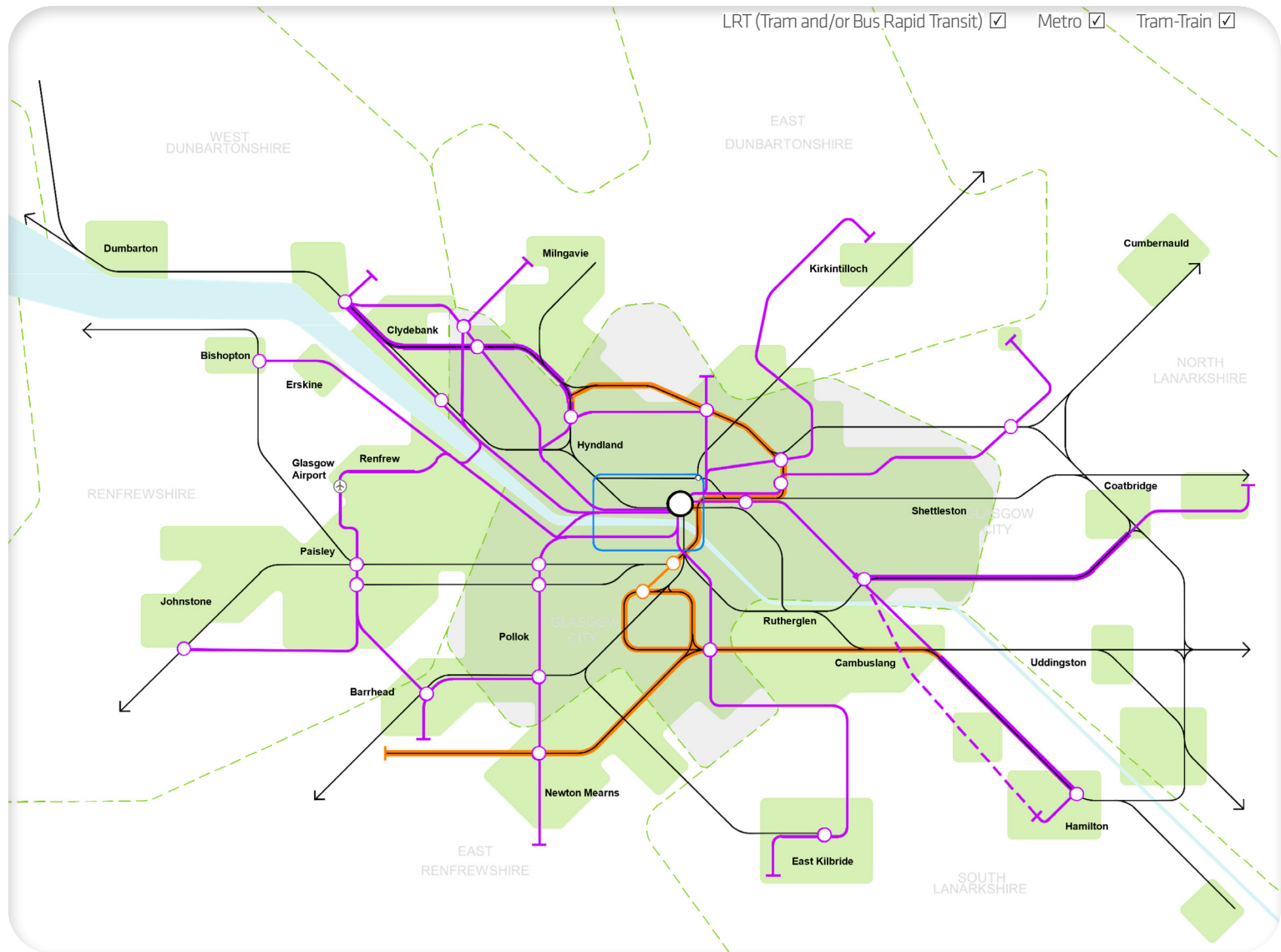
The main difference between options is driven by the potential modes of transport, i.e. Trams, Bus Rapid Transit, Metro and Tram-train. All have different characteristics that will influence the routing of corridors and how they connect to places. The key difference between options is therefore the potential to utilise existing operational railway lines.

	Option 2/A	Option 4/B	Option 8/C	Option 9/D
Links all priority places	Y	Y	Y	Y
Meets all Three Strategic Themes	Y	Y	Y	Y
Provides for connection to places outside of the Clyde Metro Study Area	Y	Y	Y	Y
Facilitates Transformational Change Across the Glasgow City Region	Y	Y	Y	Y
Rail Interface Complexity and Impact to existing rail Infrastructure	Y	N	Y	Y
Would require existing road space to be allocated to Clyde Metro	Y	Y	Y	Y
Consists of one main mode of transport	N	Y	N	Y
Option frees up existing rail network capacity	Y	N	Y	N

# Option 2/A

[View this map in more detail](#)

Option 2 provides a wide geographic coverage and connections between multiple priority places. It has a high mix of modes of transport, with the potential for tram-train and metro in addition to LRT. Therefore, it is likely to require existing road space to be reallocated and would interface with existing traditional rail infrastructure.



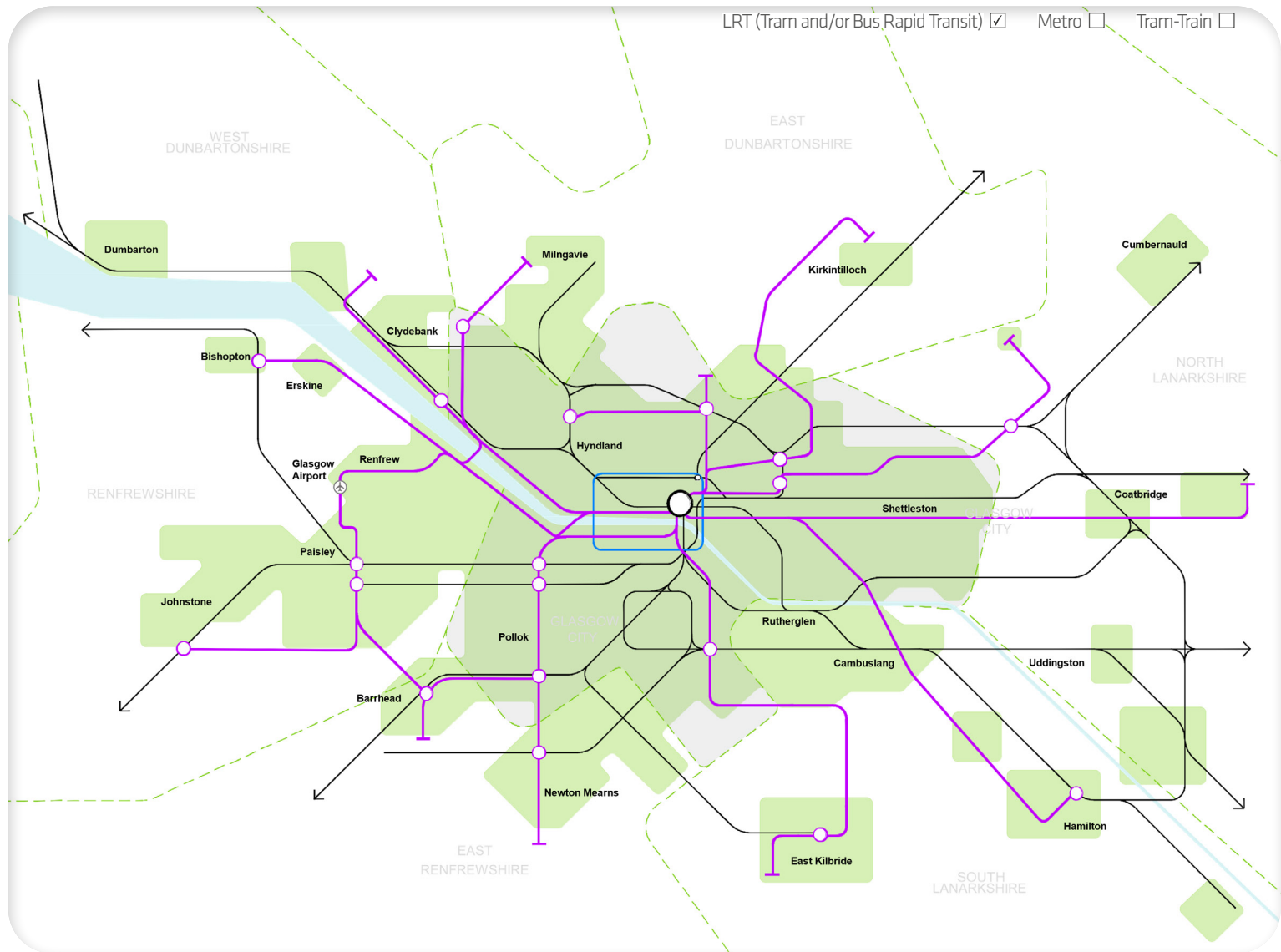
- Key**
- Light Rapid Transit (LRT)
  - Shared LRT & heavy rail (Tram & train)
  - Alternative LRT corridor
  - Potential metro extensions
  - Potential heavy rail conversion to metro
  - Key LRT interchange stops
  - Existing heavy rail retained as existing
  - Existing subway
  - Local Authority boundaries

# Option 4/B

[View this map in more detail](#)

Option 4 consists of a single Light Rapid Transit network, operating separate to existing traditional rail services, and therefore would not be Tram-train (i.e. would either be Bus Rapid Transit or Tram). There would therefore be no impact on national rail infrastructure, as the LRT would run on completely separate lines. It has slightly less geographical coverage than Option 2.

- Key**
- Light Rapid Transit (LRT)
  - Shared LRT & heavy rail (Tram & train)
  - Alternative LRT corridor
  - Potential metro extensions
  - Potential heavy rail conversion to metro
  - Key LRT interchange stops
  - Existing heavy rail retained as existing
  - Existing subway
  - Local Authority boundaries

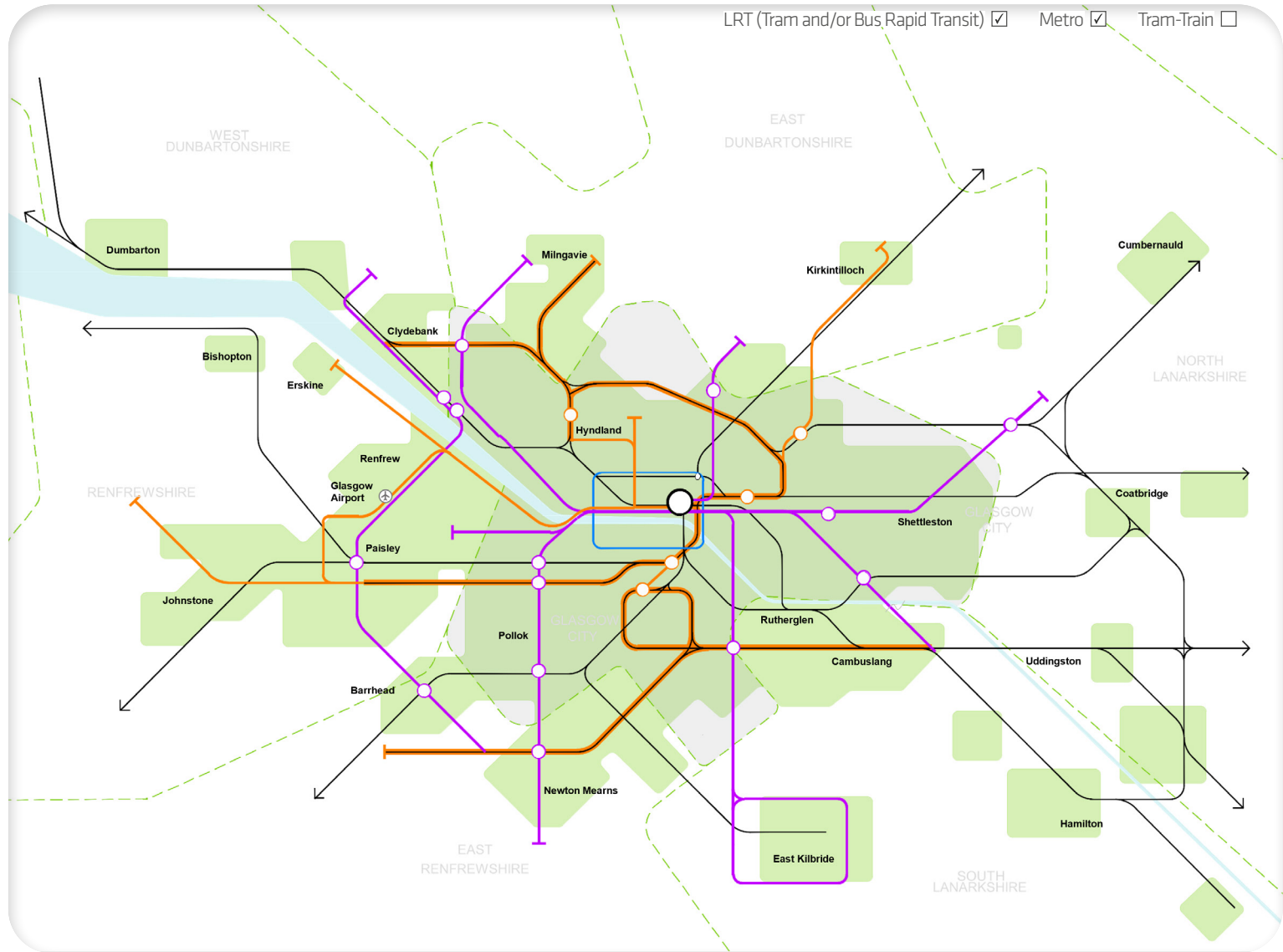


# Option 8/C

View this map in more detail

Option 8 is the same network put forward in the [Strategic Transport Projects Review 2](#). This option combines new LRT and metro lines (with the Metro lines replacing existing traditional rail services). Compared to Option 2, it offers fewer rail capacity benefits, reducing national rail network space and limiting diversion options for maintenance and daily operations. It provides slightly different geographical coverage to Options 2 and 4, with it using different modes of transport to connect priority places.

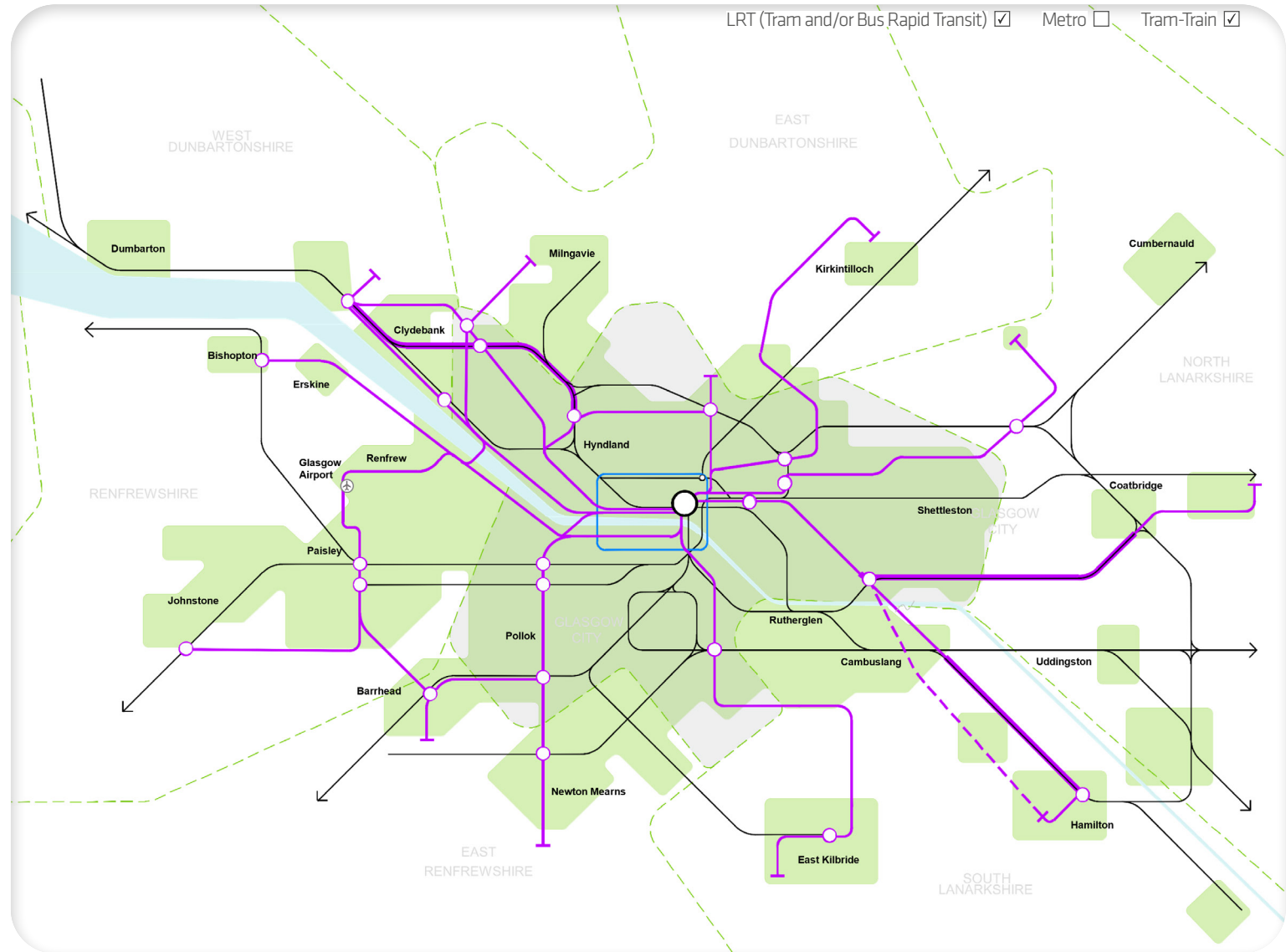
- Key**
- Light Rapid Transit (LRT)
  - Shared LRT & heavy rail (Tram & train)
  - Alternative LRT corridor
  - Potential metro extensions
  - Potential heavy rail conversion to metro
  - Key LRT interchange stops
  - Existing heavy rail retained as existing
  - Existing subway
  - Local Authority boundaries



# Option 9/D

[View this map in more detail](#)

Option 9 provides the same geographical coverage as Option 2, but only using Light Rapid Transit options. As it only utilises LRT modes of transport, it does not involve conversion of traditional rail to Metro, but there still may need to be some alterations to existing rail infrastructure in shared LRT and heavy rail (i.e. Tram-Train) sections.



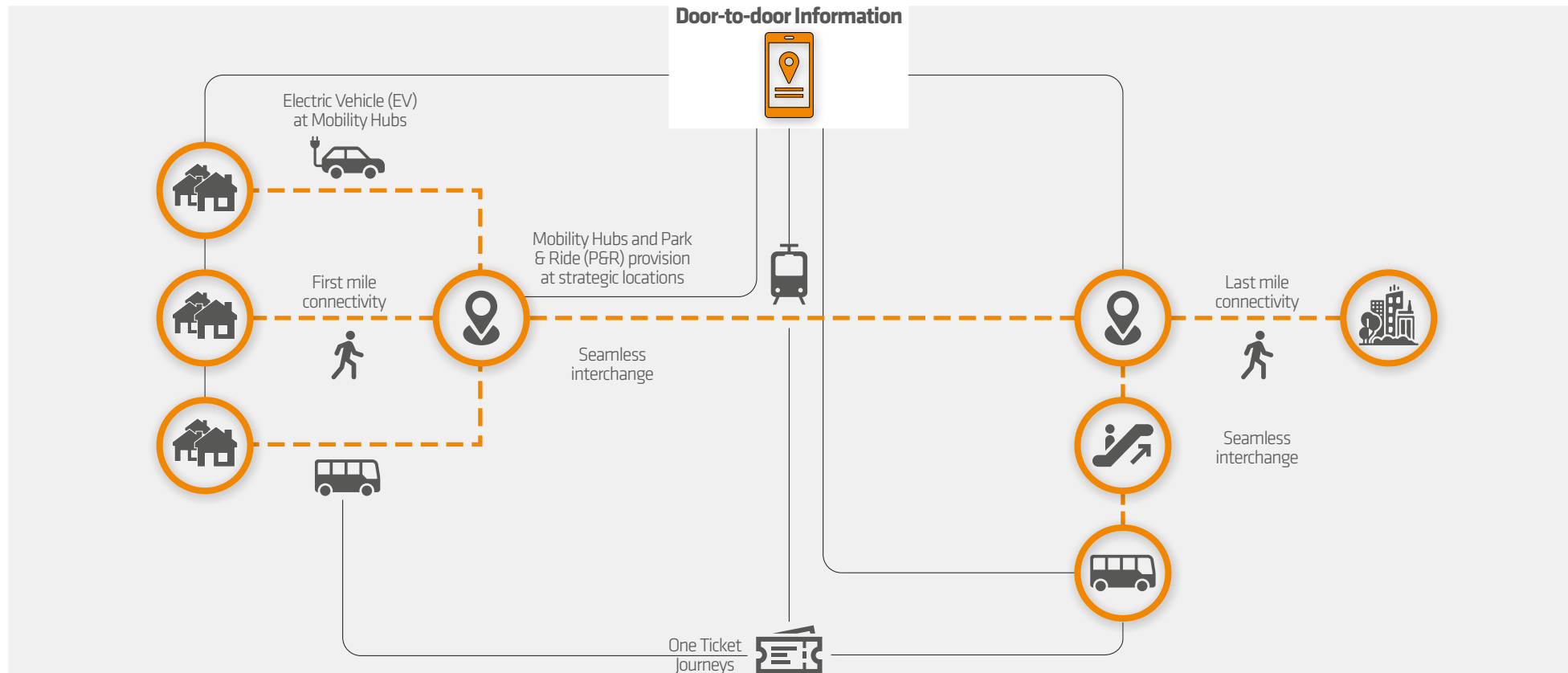
- Key**
- Light Rapid Transit (LRT)
  - Shared LRT & heavy rail (Tram & train)
  - Alternative LRT corridor
  - Potential metro extensions
  - Potential heavy rail conversion to metro
  - Key LRT interchange stops
  - Existing heavy rail retained as existing
  - Existing subway
  - Local Authority boundaries

## Complementary Non-Network Developments

Clyde Metro cannot by itself deliver the desired transformational outcomes for the whole of the Glasgow City Region and potentially to an even wider geographical area. To truly deliver the benefits across the city region Clyde Metro must be integrated with other local transport and connectivity programmes.

Key programmes would include the [Strathclyde Regional Bus Strategy](#); [Subway Modernisation](#); and [regional](#) & local active travel programmes. These programmes will integrate and interchange with the Clyde Metro network, allowing the potential for integrated ticketing, i.e. one-ticket for a journey which uses multiple modes of transport.

Across the wider city region it will be necessary to look at opportunities such as more capacity on traditional railways; additional rail stations with connections on to new Clyde Metro links; and onwards connection to settlements beyond the reach of the new Clyde Metro network. These could potentially be similar modes of transport to Clyde Metro, or others which are considered to be more suitable for a particular location.



## Next Steps (Case for Investment Stage 2)

Stage 2 of the Case for Investment is scheduled to take place from early 2025 until early 2027. Stage 2 will consist of more detailed studies and analysis on the economic impacts of the network options; environmental and non-environmental impact assessments; land-use and housing assessments; transformation delivery; a programme business case; early engineering assessment; and other work relevant to complete the Case for Investment phase.

Work undertaken in Stage 2 could lead to changes to or refinement of various elements identified in the Network Options Report, such as which places a corridor picks up or the priority of connecting certain locations.

Extensive and ongoing engagement will take place throughout Stage 2 using a carefully designed and implemented plan, allowing anyone with an interest in the Glasgow City Region the opportunity to have their say. It is important to keep the conversation alive as we work towards delivering a transport system fit for our future.

The [Clyde Metro microsite](#) will provide updates throughout the programme.

If you have any questions about the project, please feel free to get in touch with a member of the team: [clydemetro@spt.co.uk](mailto:clydemetro@spt.co.uk).

### Stages of the Case for Investment:





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