The Economic and Social Case for Metrolink in Stockport

Stockport Council Scrutiny Review Panel, 07 February 2023

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Transport for Greater Manchester

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- Metrolink overview, Phase 1, and the 1994 and 1996 studies.
- Metrolink Phase 2 and national studies 2000-2010.
- Metrolink Phase 3 and the Monitoring & Evaluation Study (March 2021).
- The situation today.
- GMTS 2040: Our Five-Year Transport Delivery Plan 2021-26.
- Stockport, and comparison with lines constructed to date.

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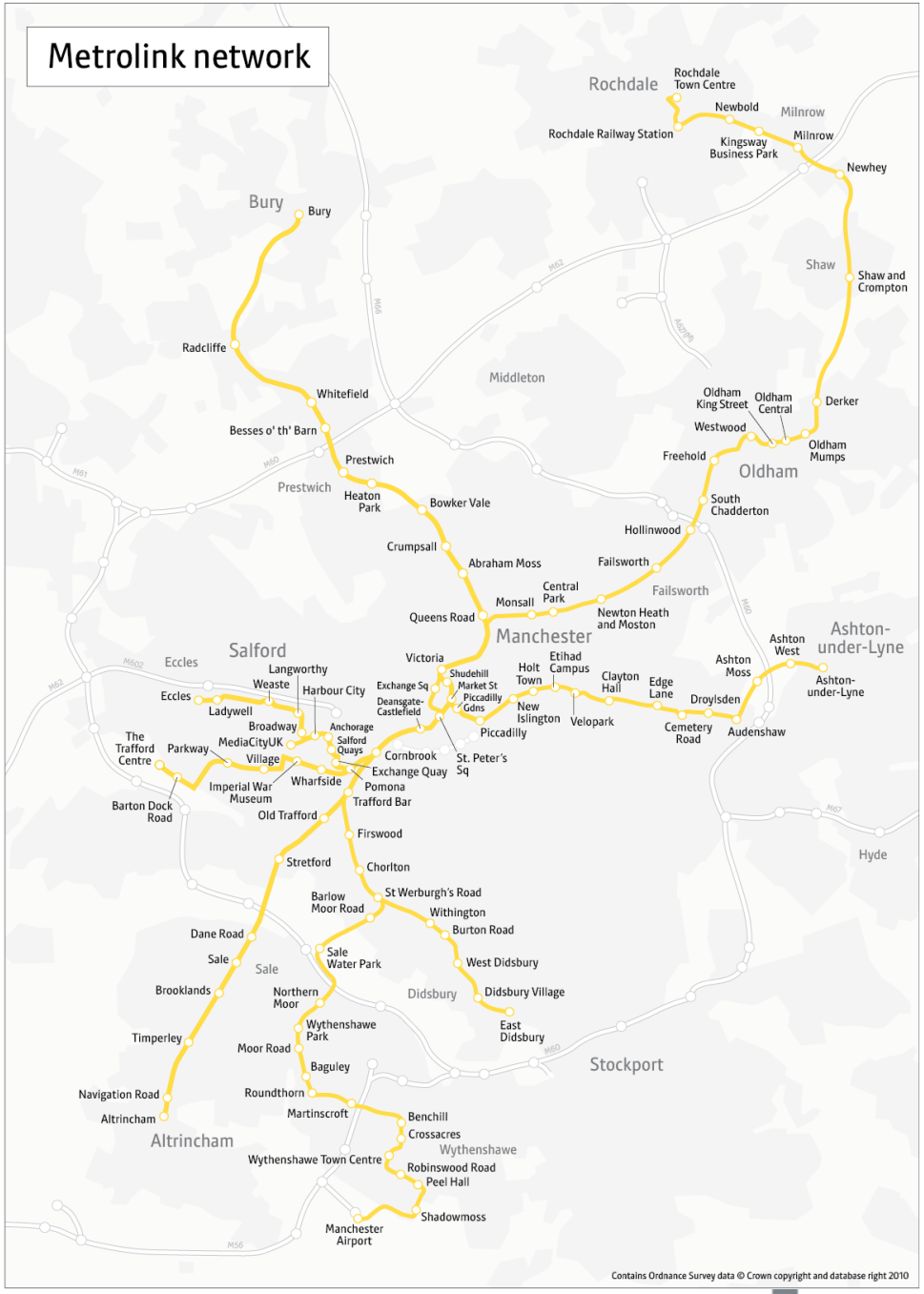
Metrolink

- Opened in 1992
- Currently 8 lines, 99 stops and over 100km of track
- Largest light rail network in the UK
- Over £2bn investment in the last 30 years
- Most recent expansion Trafford Park Line (TPL) opened in March 2020
- 45.6m passenger journeys in the year before C19
- Operated by KeolisAmey Metrolink



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Metrolink Phase 1 – constructed 1988-1992

31 km
City centre link (first time)
Conversion of, but separate from, heavy rail
Partial risk transfer (DBOM)
Cost at the time: £145m
Operating profit retained by the Concessionaire

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Metrolink Phase 1 – constructed 1988-1992

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Metrolink Impact Study (University of Salford, 1990-1994)

- **Metrolink passenger numbers in 1994 = 12.3 million (from BR's 7.6 million in 1988)**
- Ex British Rail lines went from subsidy to surplus (with investment).
- Greater off-peak patronage and more shopping trips than under British Rail.
- Higher frequencies and greater penetration of the city centre key to the offer.
- Significant attraction of passengers out of their cars, but also from bus.
- Image important: "a modern city with an efficient infrastructure".
- Land use and economic impacts uncertain in this early study.

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Metrolink Monitoring Study (Oscar Faber, 1996)

- **Metrolink passenger numbers in 1994 = 13.4 million**
- 15-30% of passengers had shifted mode from car on weekdays (50% weekends).
- In the peaks, this mode shift represented c. 5% of all vehicles on the corridors.
- Increased frequency of services made Altrincham and Bury town centres more readily accessible by rail, particularly in the off-peak.

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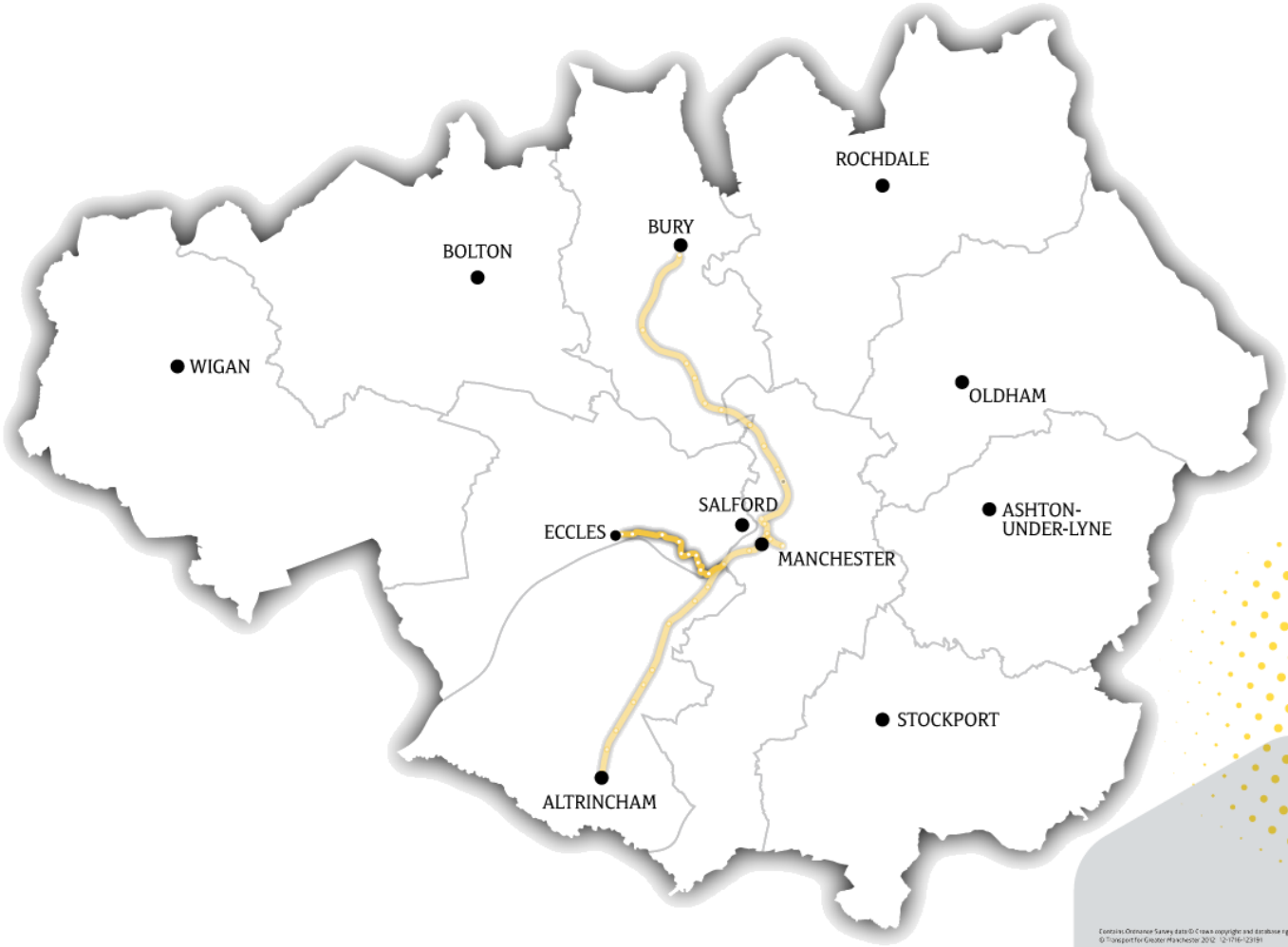
Metrolink Phase 2 – opened 1999-2000

6.5km of new route, fully opened in July 2000
Serving former docks and Eccles town centre
Operator closely involved from outset
DBOM Concession repeated
Cost at the time: £160m



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Metrolink Phase 2 – opened 1999-2000

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Improving public transport in England through light rail (NAO/PAC, HC 518 Session 2003-2004)

- **Metrolink passenger numbers in 2004 = 20 million.**
- Most people… think that they enhance the image of their host cities or towns.
- As people leave their cars, some are likely to be replaced by other motorists – complementary measures such as park and ride schemes are needed.
- Regeneration: Salford Quays, Eccles, Croydon, New Addington & Wednesbury.
- Noted that since 1989, central government had not funded any new systems expected to require ongoing subsidy.

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What Light Rail Can Do For Cities (SDG for pteg, 2005)

- **Metrolink passenger numbers in 2005 = 20 million.**
- "A very positive image" and "an integral part of the renaissance of Manchester."
- Also considered Tyne & Wear Metro, Docklands Light Railway, Midland Metro, Sheffield Supertram, Nottingham Express Transit and Croydon Tramlink.
- Interesting findings regarding:
  - property prices for Sheffield Supertram[1];
  - unemployment for Croydon Tramlink[2];
  - business impacts for Midland Metro[3].

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1. Crocker, S et al (1999) Monitoring the Economic and Development Impacts of South Yorkshire Supertram 1992-1996 Centre for Regional Economic and Social Research, Sheffield Hallam University for Department for Transport, ESRC and SYPTE

2. Colin Buchanan and Partners (2003) Economic and Regeneration Impact of Croydon Tramlink: Final Report – South London Partnership

3. West Midlands PTA (2003) Best Value Service Review: Metro Line 1 Operation – Gap Report

The Future of Light Rail and Modern Trams in the UK (Transport Select Committee, HC 378 Session 2004-2005)

- **Metrolink passenger numbers in 2005 = 20 million.**
- Successful schemes should:
  - serve a major urban conurbation, and serve corridors with significant volumes of traffic – with major 'attractors' along or at the end of routes;
  - provide competitive journey times compared with other modes, and deliver a predictable, regular and reliable journey time and service pattern using a high degree of segregation from traffic with priority at junctions;
  - be perceived as safe, offer good key interchanges with other modes (e.g. park and ride, bus), and be well related to existing and future land-use.

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as summarised in Green Light for Light Rail, DfT, 2011

Light Rail & the City Regions Inquiry (APPLRG/pteg, 2010)

- **Metrolink passenger numbers in 2010 = 19 million.**
- The benefits of modern trams are summarised as:
  - transforming perceptions;
  - supporting regeneration;
  - getting people out of their cars (modal shift) and reducing congestion;
  - improving the urban environment;
  - improving safety;
  - providing access for all.

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Green Light for Light Rail (DfT, 2011)

- **Metrolink passenger numbers in 2011 = 22 million.**
- Attractions of a fixed track system include:
  - cannot change easily – knowable and understandable;
  - permanence – to plan lives around the system with confidence;
  - encourages businesses to develop along the routes;
  - the system can be seen and advertises itself.

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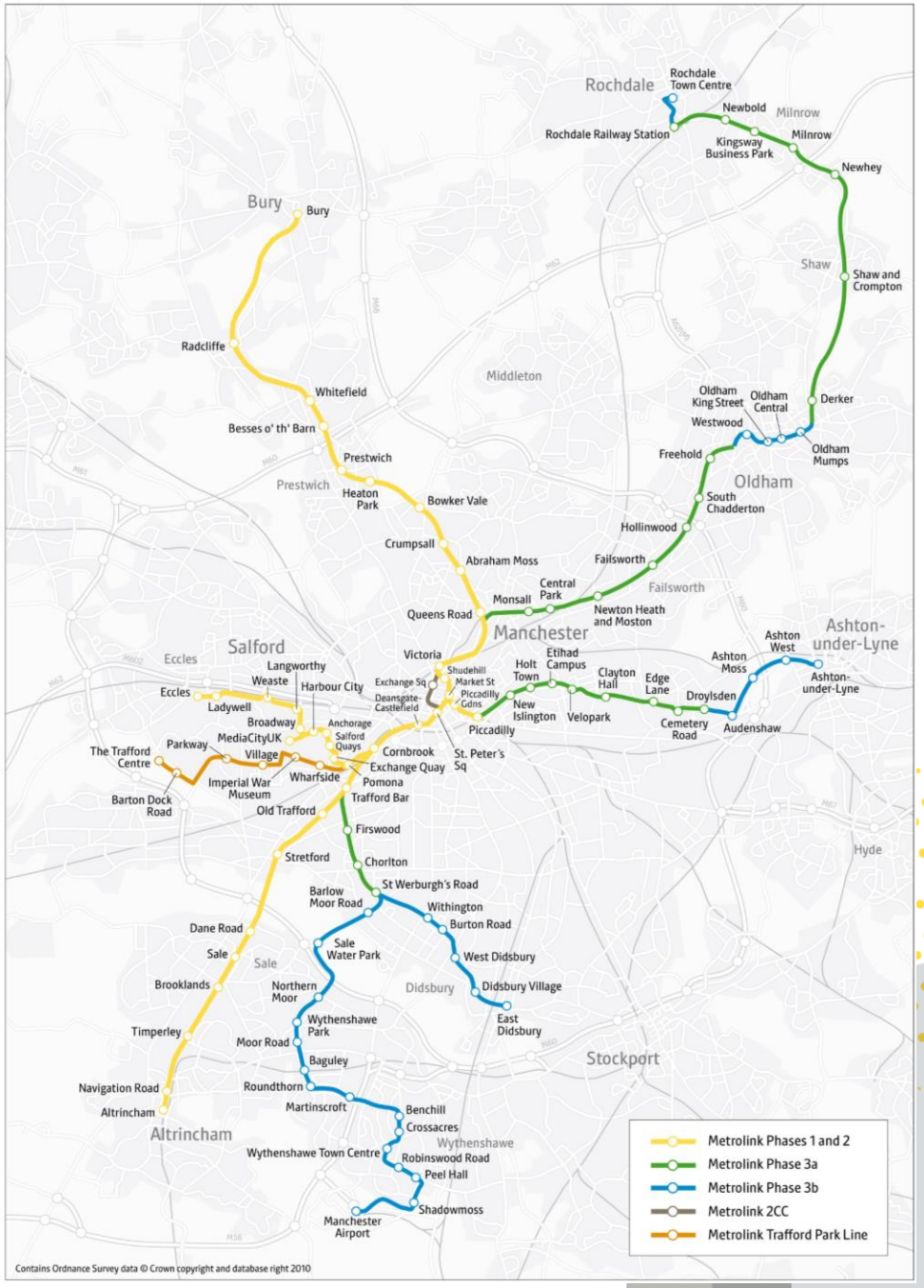
Metrolink Phase 3 Expansion

- Phase 3 consisted of lines to Ashton, East Didsbury, Oldham and Rochdale, Manchester Airport.
- Lines opened in stages between 2011 and 2014.
- Constructed through a combination of converting existing heavy rail lines, building on former heavy rail lines and entirely new infrastructure.
- With the subsequent Second City Crossing (2CC), resulted in a total of 97km of Metrolink track.



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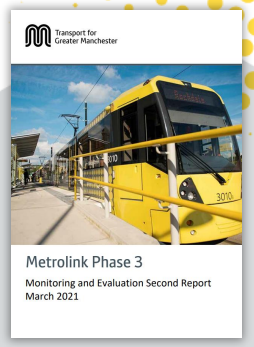
Modal shift (stated behaviour if Metrolink not available)

Line	Travelled by Alternative Means					Other Travel Behaviour		Total	Sample Size
	Travelled by bus	Travelled by car (as driver)	Walk/cycle/ other	Travelled by train	Travelled by car (as a passenger)	Not made the journey	Travelled elsewhere		
Altrincham	36.6%	30.4%	7.3%	10.6%	4.7%	9.5%	1.0%	100.0%	1,373
Bury	56.6%	25.8%	2.6%	2.2%	5.6%	6.0%	1.3%	100.0%	585
Eccles	46.9%	18.0%	14.0%	3.6%	10.3%	6.8%	0.4%	100.0%	1,326
Ashton	56.5%	13.1%	13.0%	5.5%	6.9%	4.1%	0.9%	100.0%	1,100
East Didsbury	53.8%	18.6%	8.4%	9.8%	5.0%	3.8%	0.6%	100.0%	809
Rochdale	53.9%	20.8%	4.4%	8.8%	6.0%	5.3%	0.9%	100.0%	591
Manchester Airport	49.0%	19.2%	7.2%	8.8%	8.9%	6.3%	0.6%	100.0%	972
Peak	49.0%	24.7%	7.8%	7.5%	5.9%	4.5%	0.6%	100.0%	4,507
Off-Peak	51.4%	17.5%	6.8%	6.0%	7.4%	9.6%	1.4%	100.0%	2,249
Phase 1 & 2 Lines	46.7%	24.7%	8.0%	5.5%	6.8%	7.4%	0.9%	100.0%	3,508
Phase 3 Lines	53.3%	17.9%	8.3%	8.2%	6.7%	4.9%	0.8%	100.0%	3,248
All lines	**49.8%**	**22.2%**	**7.5%**	**7.0%**	**6.4%**	**6.2%**	**0.9%**	**100.0%**	**6,756**



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Implications of mode shift

- Estimated removal in 2019/20 by Phase 3 of:
  - 38.8 million car-km;
  - 6,700 tonnes CO_2e;
  - 12.8 tonnes NOx.
- Metrolink has a clean and green energy supply.
- Power options for Tram-Train are being assessed as part of the Pathfinder project currently in development, but could benefit from the technological development of Onboard Energy Storage Systems (OESS), such as battery power and hydrogen.

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Door-to-door access changes

- 10%+ improvement in public transport door-to-door access to healthcare, employment and further education – for around 20% of GM's population
- Because Phase 3 targeted areas of deprivation, the 10%+ improvement was experienced by around 30% of GM's most deprived decile.

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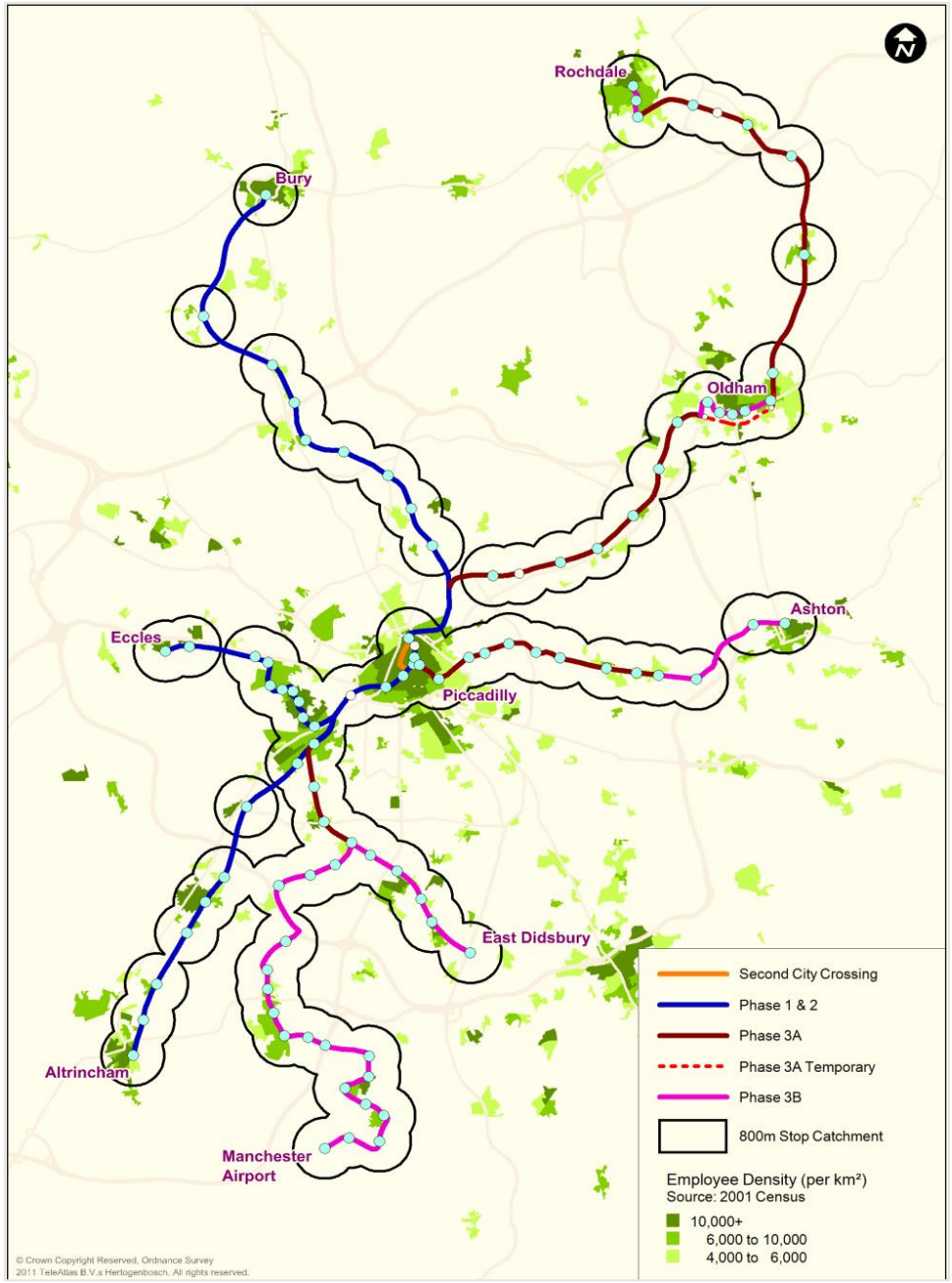

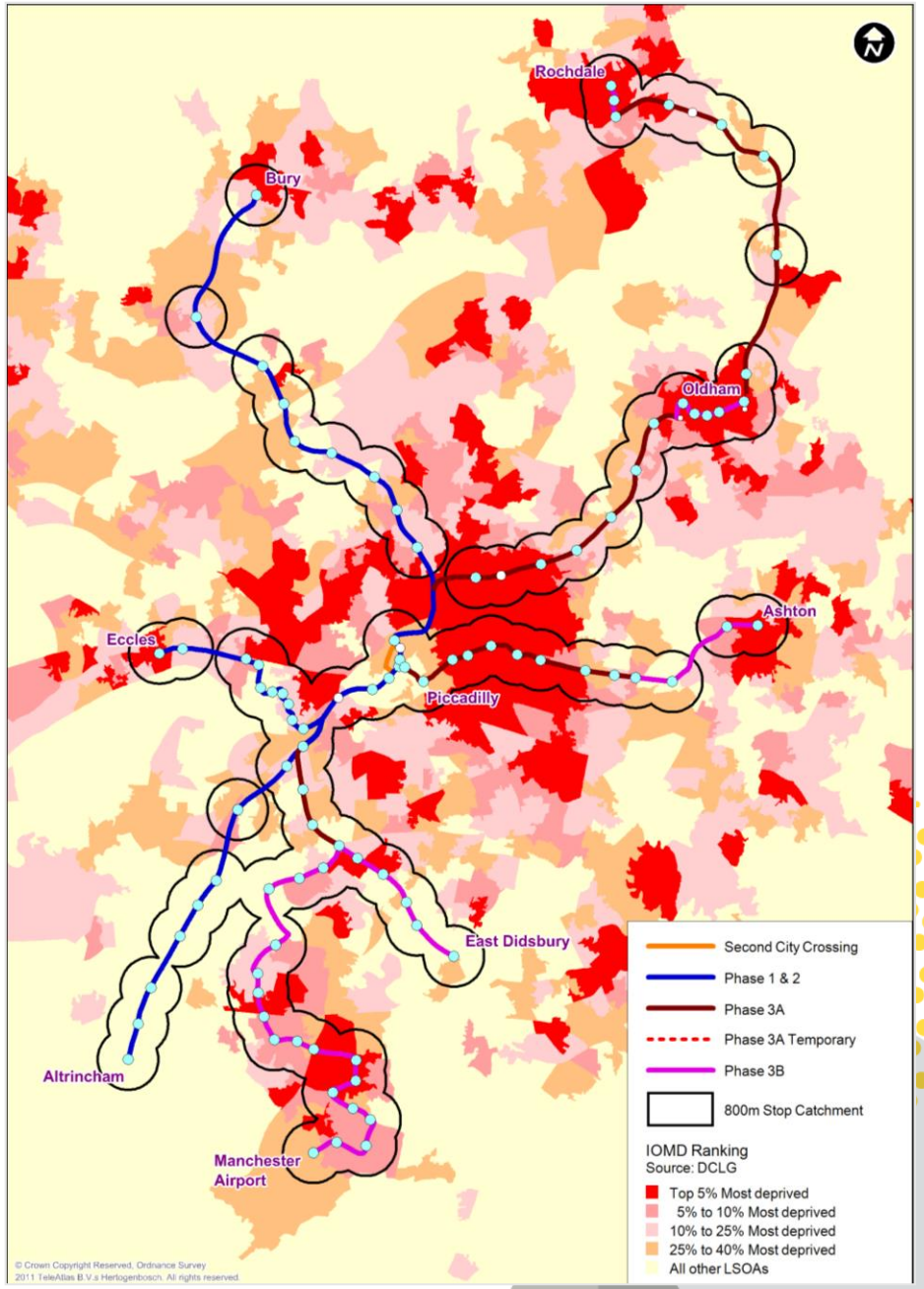

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AECOM study on business impacts

- AECOM study on business impacts:
  - 450 businesses at ‘1 year after’ and ‘3 years after’ (on the corridors – city centre not in the study area)
  - variability between the corridors;
  - positivity about impacts *yet to be realised*;
  - perception of site and place improved;
  - jobs / ‘business decisions’ link not yet established, with a number of background factors in play;
  - customer and labour force catchments.

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Arup study on GM-wide economic performance

- Arup modelling on GM-wide economic performance:
  - linkage between accessibility and commercial rents (areas within 1km of Metrolink stops seeing an average uplift of 6.5% in commercial rents relative to control areas);
  - issues in separating correlation and causation;
  - employment changes – generally slower to take effect;
  - interviewees identified:
    - labour market expansion (city centre / Salford Quays);
    - ‘city vibrancy’.

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Wythenshawe-specific study

- Wythenshawe-specific study:
  - increased footfall, and relocation toward tram stops;
  - but also (i) competition and (ii) labour catchment;

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Property price impact – Nationwide analysis

- Noting that Nationwide's econometric analysis did not separate out Metrolink or National Rail stops/stations, nor new stops/stations vs. established ones:
  - 7.8% for a property located 500m from a stop/station, (was 4.6% in 2014 analysis by Nationwide)
  - 5.4% for a property located at 750m (was 3.2%);
  - 3.3% for a property located at 1,000m (was 2%);
  - 1.5% for a property located at 1,250m (was 0.9%).

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Property price impact – University of Leeds analysis

Area	Uplift within 1km of stop
New Metrolink stops, 1999-2017	+6.3%
Line	**Uplift within 1km of stop**
Airport	+20.6%
East Didsbury	+10.5%
Ashton	+7.5%*
Oldham & Rochdale	-1.1%*

Notes: * The authors note that the results for Ashton and for Oldham and Rochdale are not significant at the 95% level of significance, meaning that the findings are uncertain for those lines. TfGM note that the Airport Line findings may also be influenced by change over time in the Wythenshawe area, e.g. a lessening in levels of deprivation.

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Metrolink accessibility

Every tram has:

- an area for people who use a wheelchair or mobility scooter
- wider priority seats with more space, marked for people who have trouble standing
- emergency call points

All tram stops have:

- a ramp, lift, or escalator
- step-free access for wheelchair-users
- CCTV and emergency call-points

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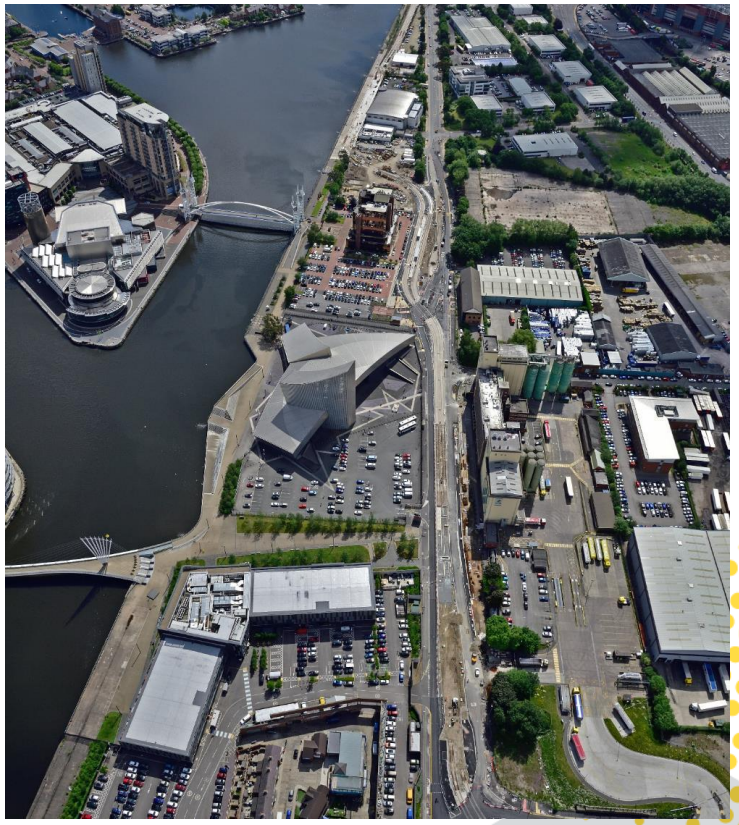
Metrolink Trafford Park Line

- Opened to the public in March 2020.
- Six new stops across 5.5km line – mostly segregated from highway.
- Park & Ride at Parkway.
- Construction cost £350m (at the time).



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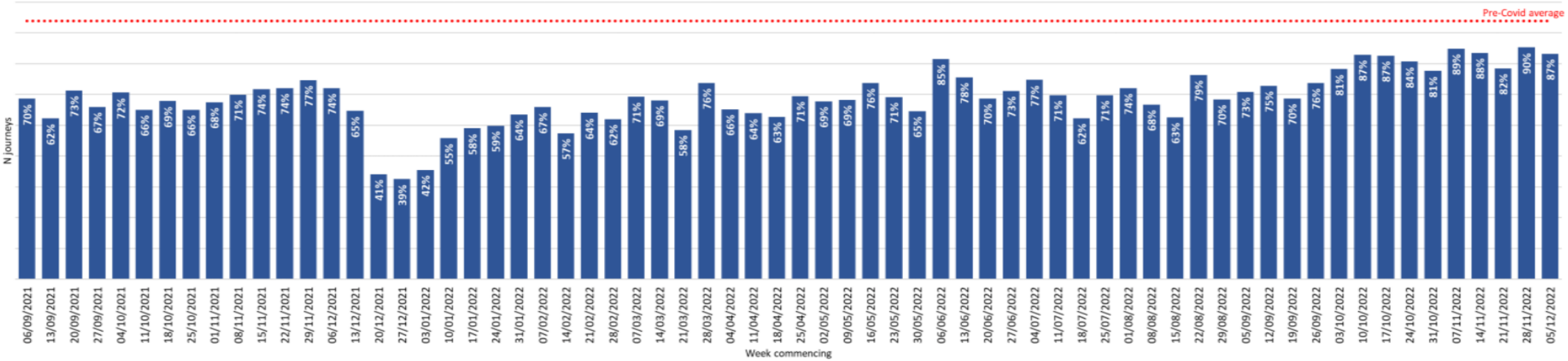
Today…



- Patronage fell as low as 5% of pre-C19 levels in the first lockdown.
- Now recovering, with farebox revenues at c.85% of pre-C19 levels.
- Operating costs increased significantly (energy and general inflation).
- Light rail recovery funding expired in October 2022.

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GMTS 2040: Our 5-Year Transport Delivery Plan 2021-26

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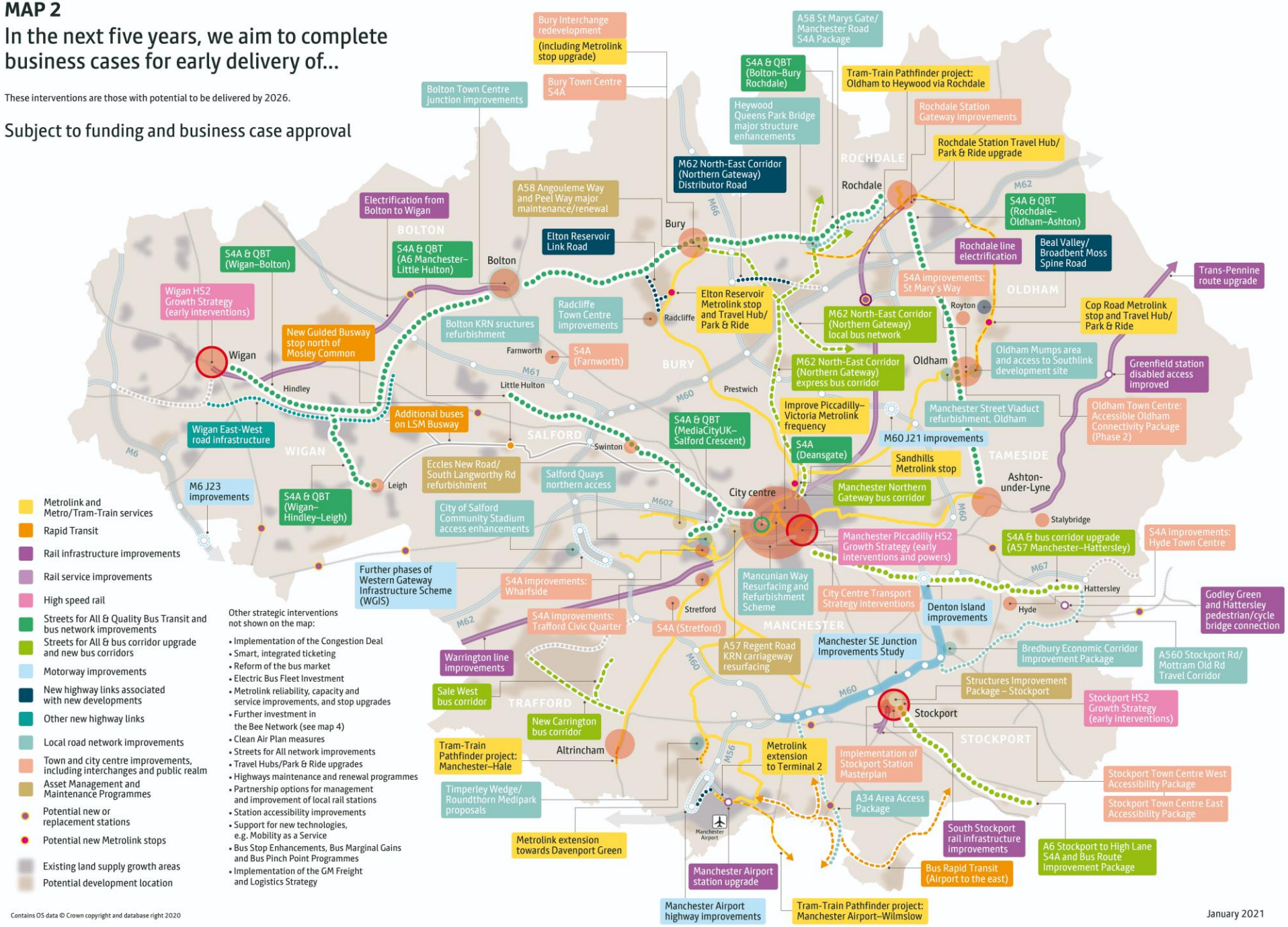
MAP 2

In the next five years, we aim to complete business cases for early delivery of...

These interventions are those with potential to be delivered by 2026.

Subject to funding and business case approval



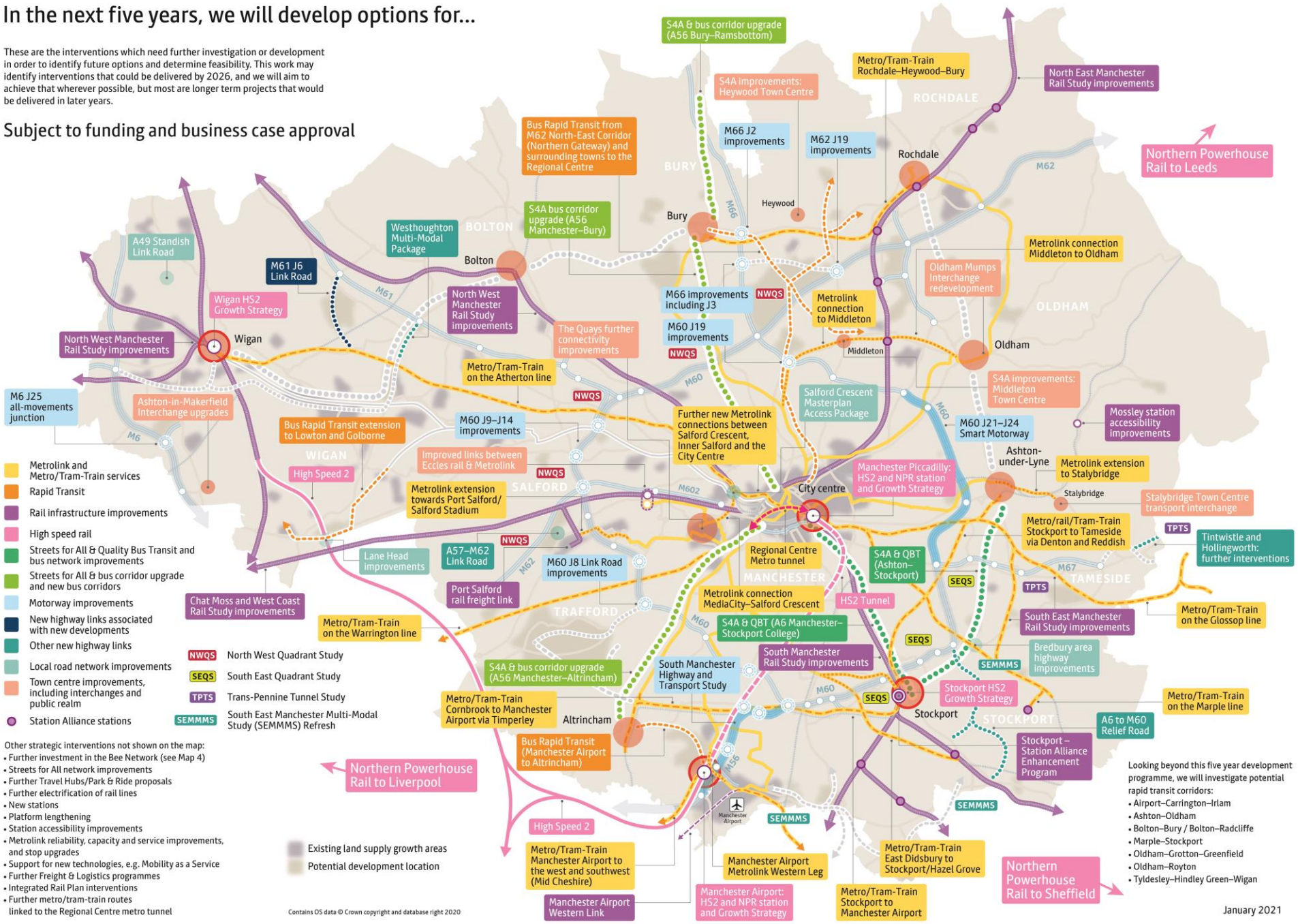
GMTS 2040: Our 5-Year Transport Delivery Plan 2021-26

MAP 3

In the next five years, we will develop options for...

These are the interventions which need further investigation or development in order to identify future options and determine feasibility. This work may identify interventions that could be delivered by 2026, and we will aim to achieve that wherever possible, but most are longer term projects that would be delivered in later years.

Subject to funding and business case approval



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Stockport

- Areas of Stockport within the 10% most deprived.
- Clear ambition, with 20,000 jobs currently located within Stockport Town Centre – envisaged by the Mayoral Development Corporation to create 5,000 more.
- Population of Stockport Town Centre (covering Brinnington and Central Wards) 11,000 – with 3,500 homes proposed within Town Centre West.
- Stockport Station is a hub for rail connectivity.
- Stockport College and key leisure and retail attractions in Stockport Town Centre
- Strong transport links to Piccadilly, but less so the west side of the city centre and to Salford Quays / MediaCityUK, Trafford Park and Manchester Airport.

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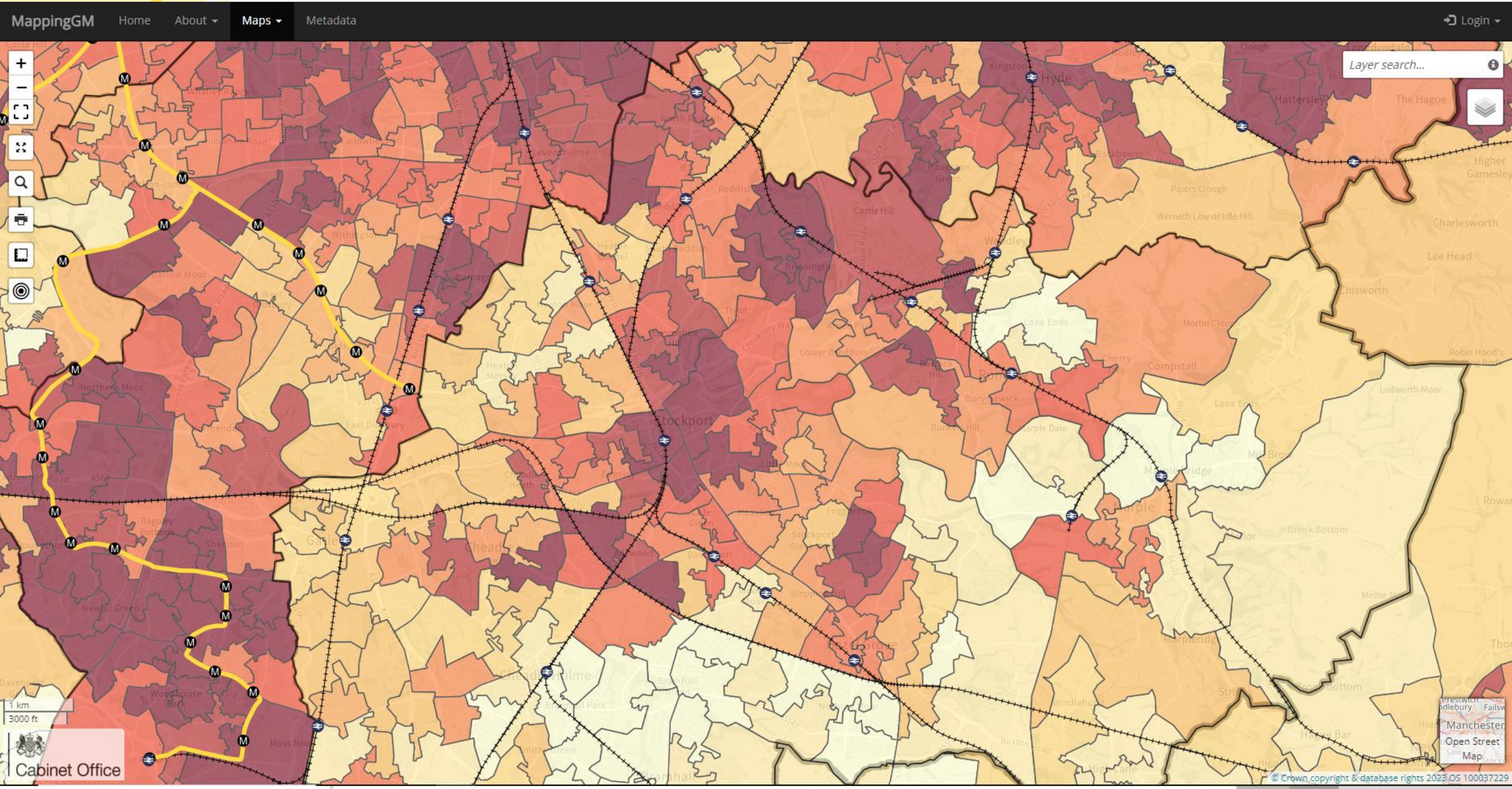
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Compstall
Cabinet Office
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3000 ft
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Open Street
Map
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Summary of existing lines (and Stockport comparison)

Line	Majority built on existing/former rail line	Degree of competition from rail/tram service	Terminus has major trip attractor/generator
Airport	✗	✓	✓
Altrincham	✓	✓	✓
Ashton	✗	✓	✓
Bury	✓	✓	✓
East Didsbury	✓	✓	✗
Eccles/MediaCity	✗	✓	✓
Oldham & Rochdale	✓	✓	✓
Trafford Park	✗	✓	✓
East Didsbury - Stockport	–	✗	✓

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Thank you – questions?

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