

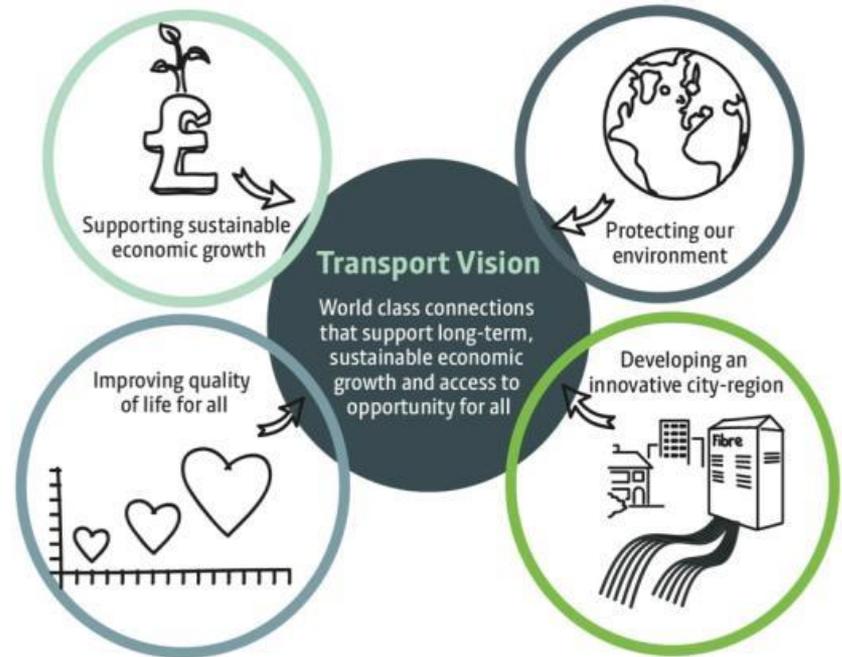


Is Tram Train part of the future for Greater Manchester?

Martin Lax
Head of Development
Transport for Greater Manchester



Our Vision





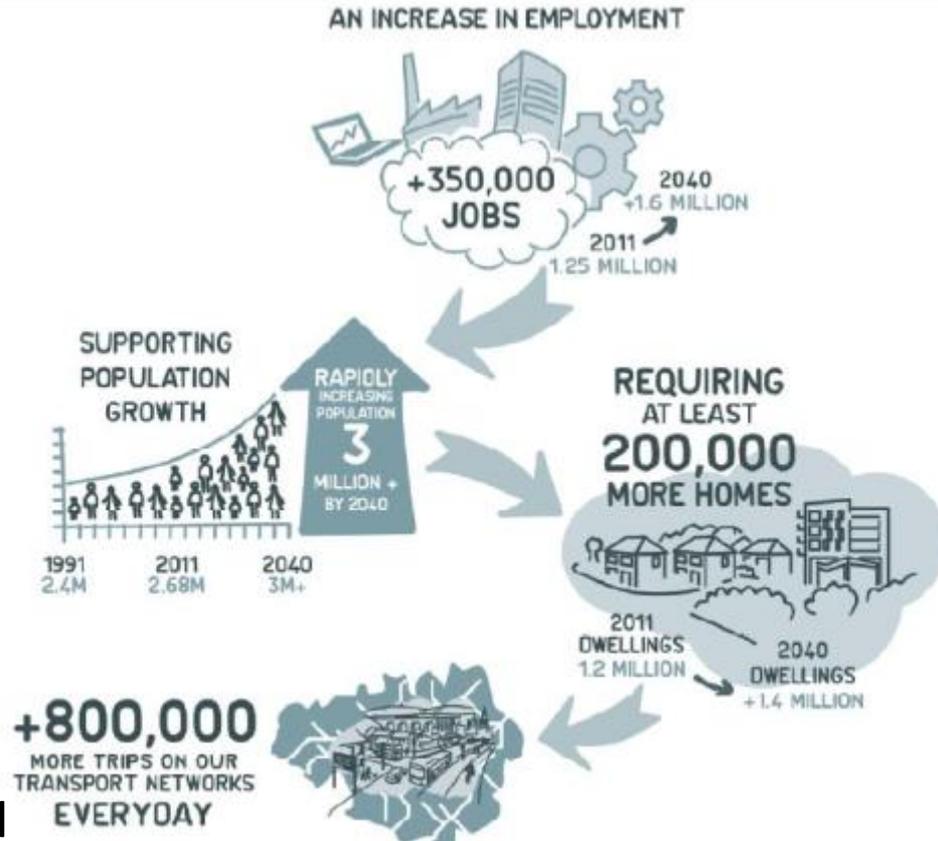
Our 2040 Spatial Themes





Greater Manchester Growth

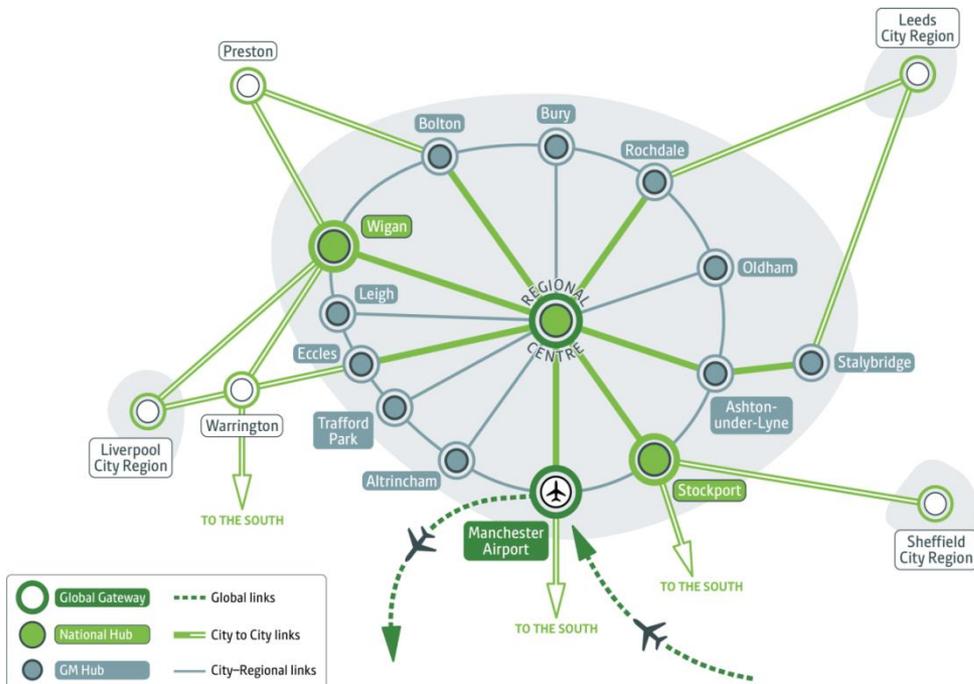
- Predicted that there will be 1.6m jobs in GM,
- Around 350,000 additional jobs.
- This will support population growth to 3m+,
- Requiring an additional 200,000 homes,
- Leading to 800,000 trips per day on the transport network.



Improved transport connectivity is a vital component in delivering this growth



Rapid Transit Strategy – Supporting Growth





Rapid Transit Strategy

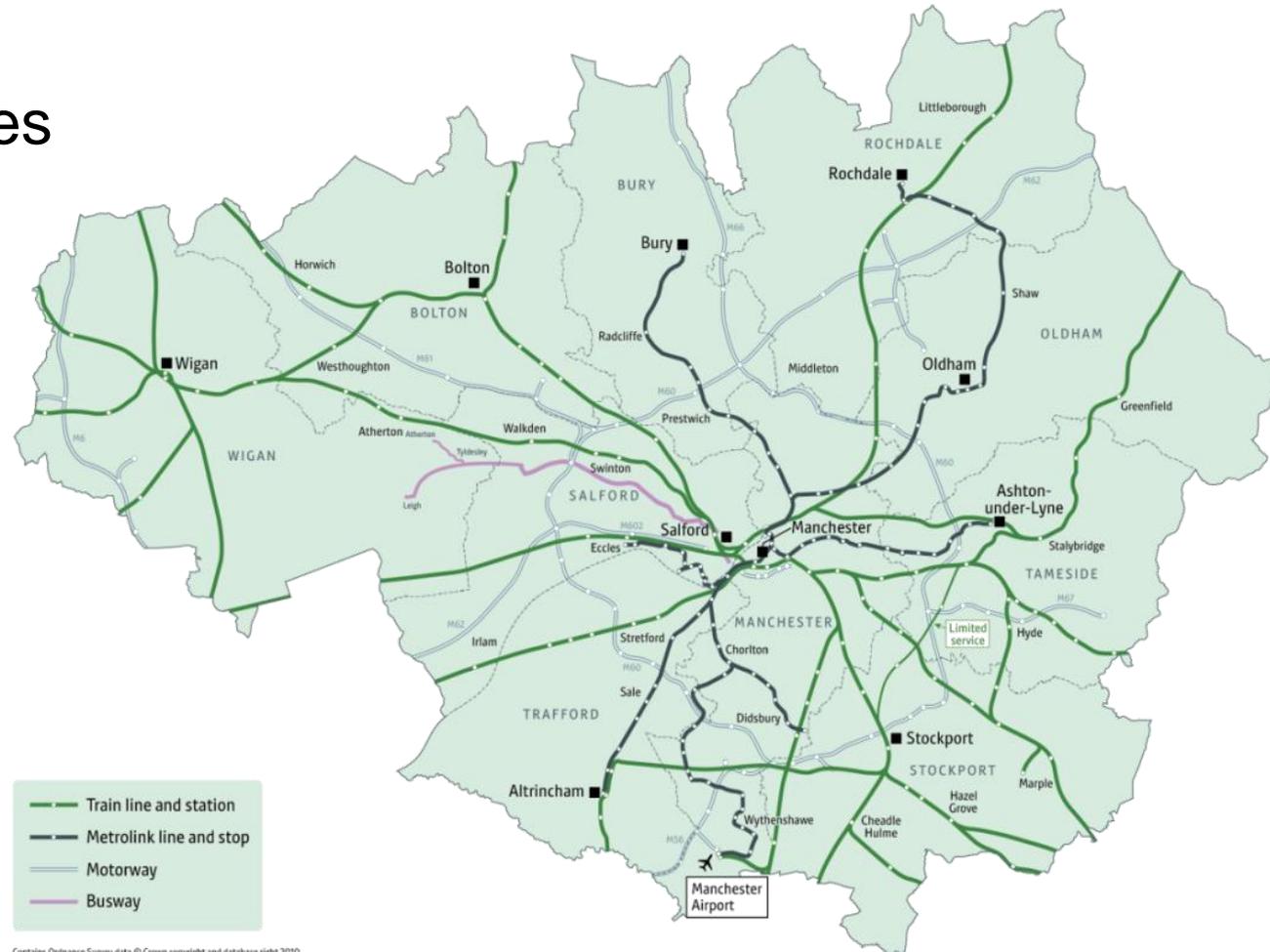
Our Ambition: To extend the benefits of rapid transit to more areas of Greater Manchester and provide the capacity and reliability needed to support growth in the economy.





Tram Train – Work Underway

- Corridor Studies
- Technical Assessment



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Power

Various Options

- OHLE Electrification

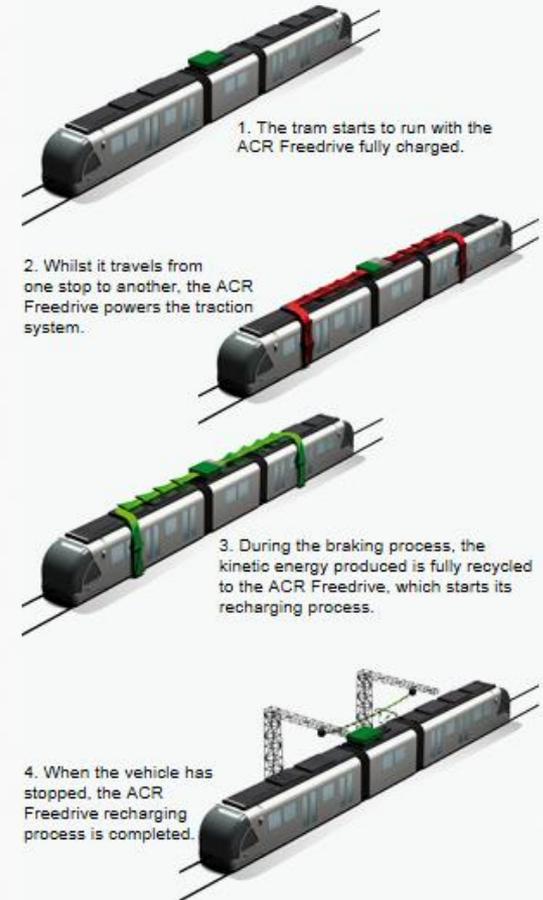


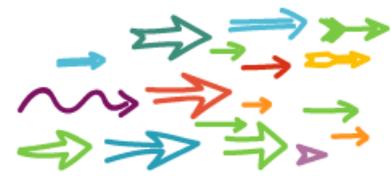
Alternative Technology, including:

- Batteries
- Regeneration
- Hydrogen
- Embedded 3rd rail



FREEDRIVE OPERATION





Infrastructure

Key Considerations:

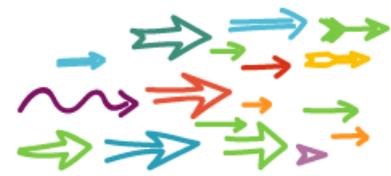
Size of vehicle: should be compatible with Metrolink infrastructure

- DKE / swept path of M5000
- Length: assumed that double unit equivalent required for potential passenger demand
- Assuming c60m and around 400 capacity for Tram Train vehicle

Accessibility: wheelchair and other mobility impaired users

- Platform level – same as Metrolink but cope with railway stations
- Horizontal stepping distance from vehicles to platform

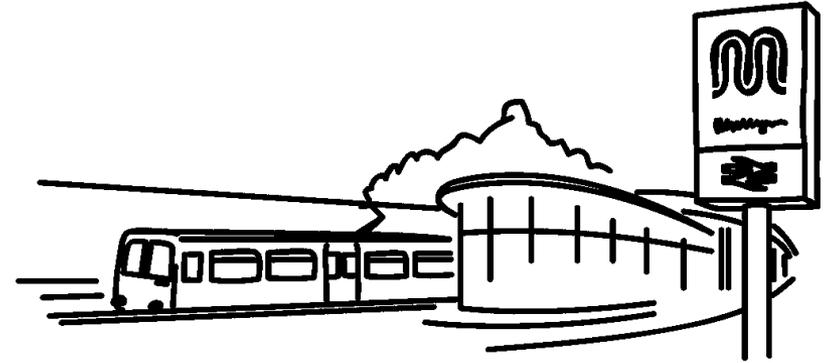




Asset

Experience of TfGM from expanding Metrolink

- Procurement Requirements
- Possession works
- Electrification
- De-vegetation
- Structures (Bridges & Tunnels)
- Signalling



2040 and Devolution – Railway Stations

- 97 rail stations across GM – the majority managed by TOCs
- Many stations have accessibility issues and poor facilities
- Aim to improve access, customer information, facilities, safety and security
- Builds on TfGM management of 92 Metrolink stops and 24 bus stations



Operation

Network Rail / ORR Compliance:

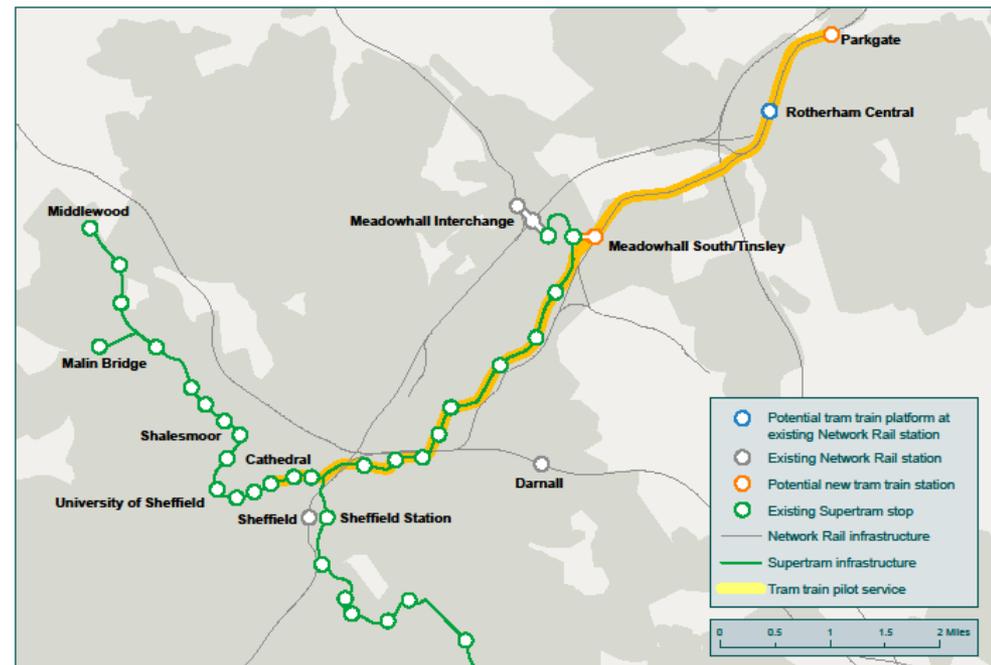
- Route sharing & path integration with freight
- Signalling & other derogations for vehicle
- Product acceptance



Liaising with other schemes

- UK Tram Train Pilot (Sheffield)
 - Regular update and lessons learnt
- Glasgow
- Cardiff

Joint Working?





Tram Train – Phase 1 Potential Programme

- Studies 2016 through 2017
- Elected Mayor May 2017
- DfT report on Sheffield by 2019/20
- CP6
 - 2019 to 2024 – Development work with Network Rail
- CP7
 - 2024 to 2029 – Delivery?



Questions?
