

# Sustainable Urban Mobility

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# Sustainable Urban Mobility In Greater Manchester



## Context

- Encourage smarter use of network
- Integration of modes and information
- Traveler centric not mode centric
- For journeys not operations
- Incentives and sanctions



## Traditional

- Fixed Infrastructure
- Large amounts of capital
- Expensive to maintain
- Lowest common denominator
- Little integration



Line	Route	Destination	Time
17	52	WREZLE - KYIV	11:15
9	860	LV79 - KYIV	11:15
2	87	KY79 - WROTHAM	11:15
3	87	WROTHAM - KY79	11:15
18	250	IV - FROTHAM	11:15
22	22	EVINGHAM - KYIV	11:15
27	27	SCARBOROUGH - KYIV	11:15
5	230	KYIV - WROTHAM	11:15
70	80	WROTHAM - KYIV	11:15
150	150	WROTHAM - KYIV	11:15
222	222	LV79 - WROTHAM	11:15
55	55	WROTHAM - SOFIA	11:15

## Network expansion

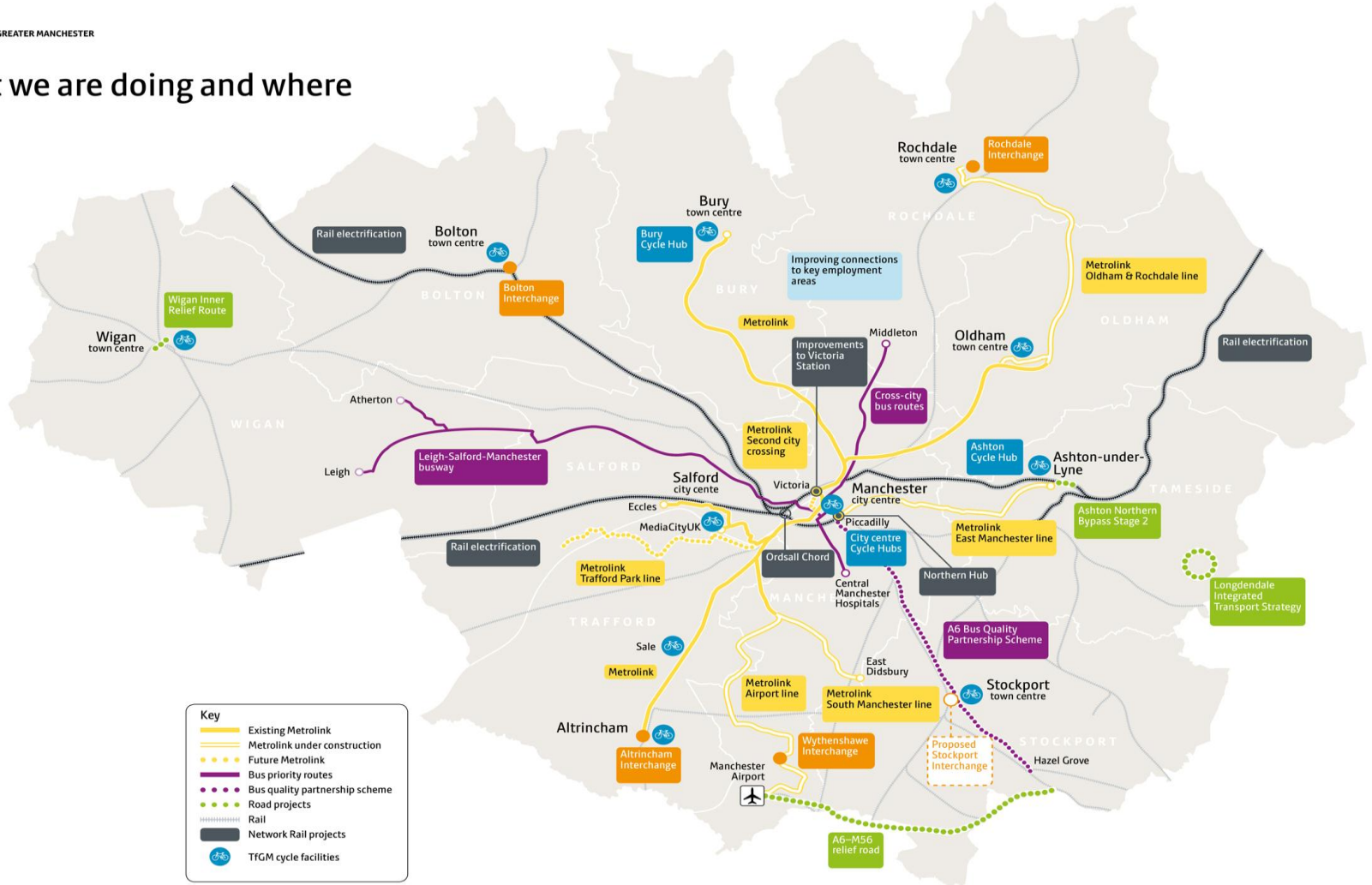
- Linking public transport with retail, leisure and employment opportunities:
- Regional town centres – Oldham, Rochdale, Wythenshawe, Chorlton, Didsbury, Droylsden and Ashton
- Employment opportunities – MediaCityUK, Manchester Airport
- Leisure and recreational facilities – Hardy Farm, Manchester City Stadium (as well as Old Trafford)
- Supporting regeneration plans – New East Manchester, MediaCityUK





TRANSPORT FOR GREATER MANCHESTER

## What we are doing and where





# The Green Bus Family

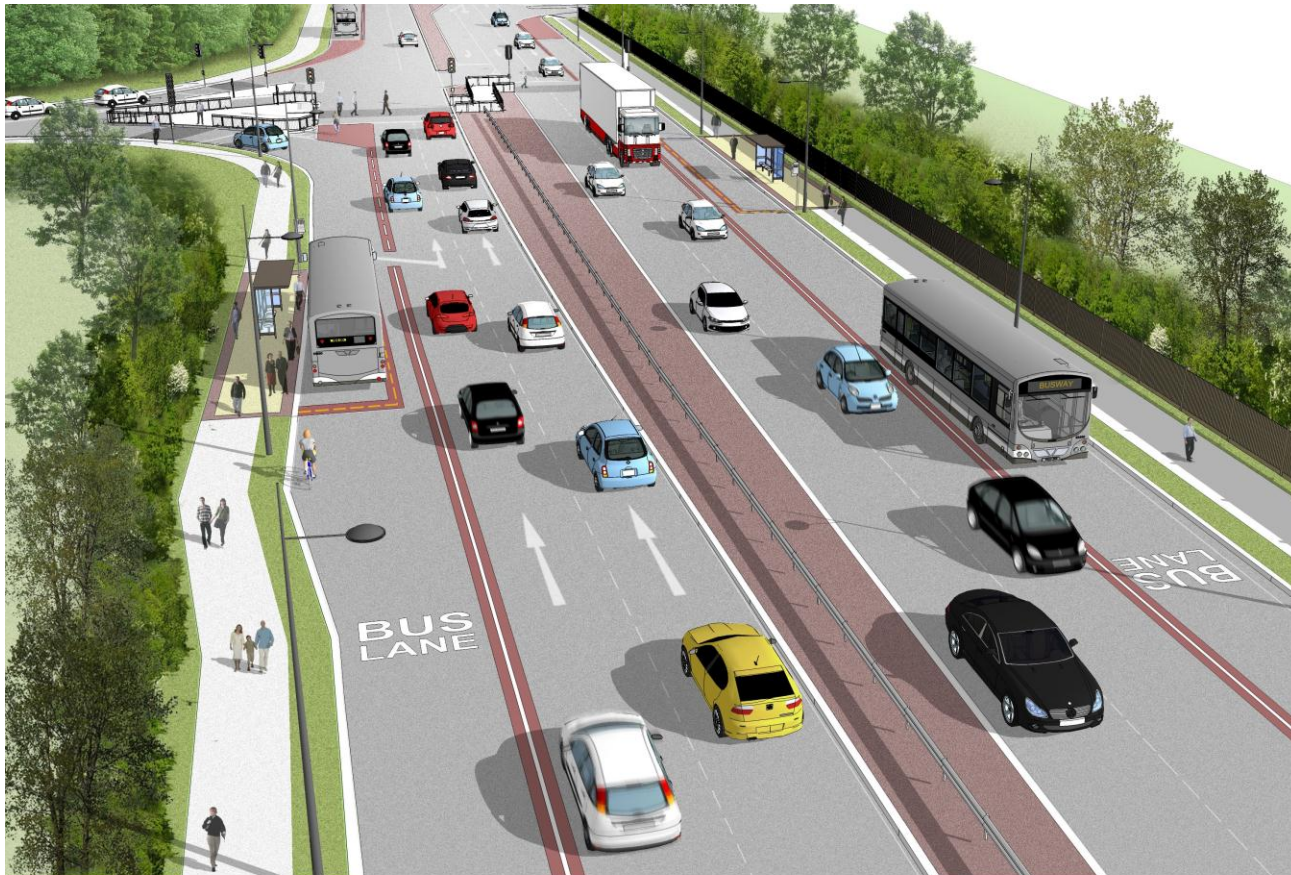








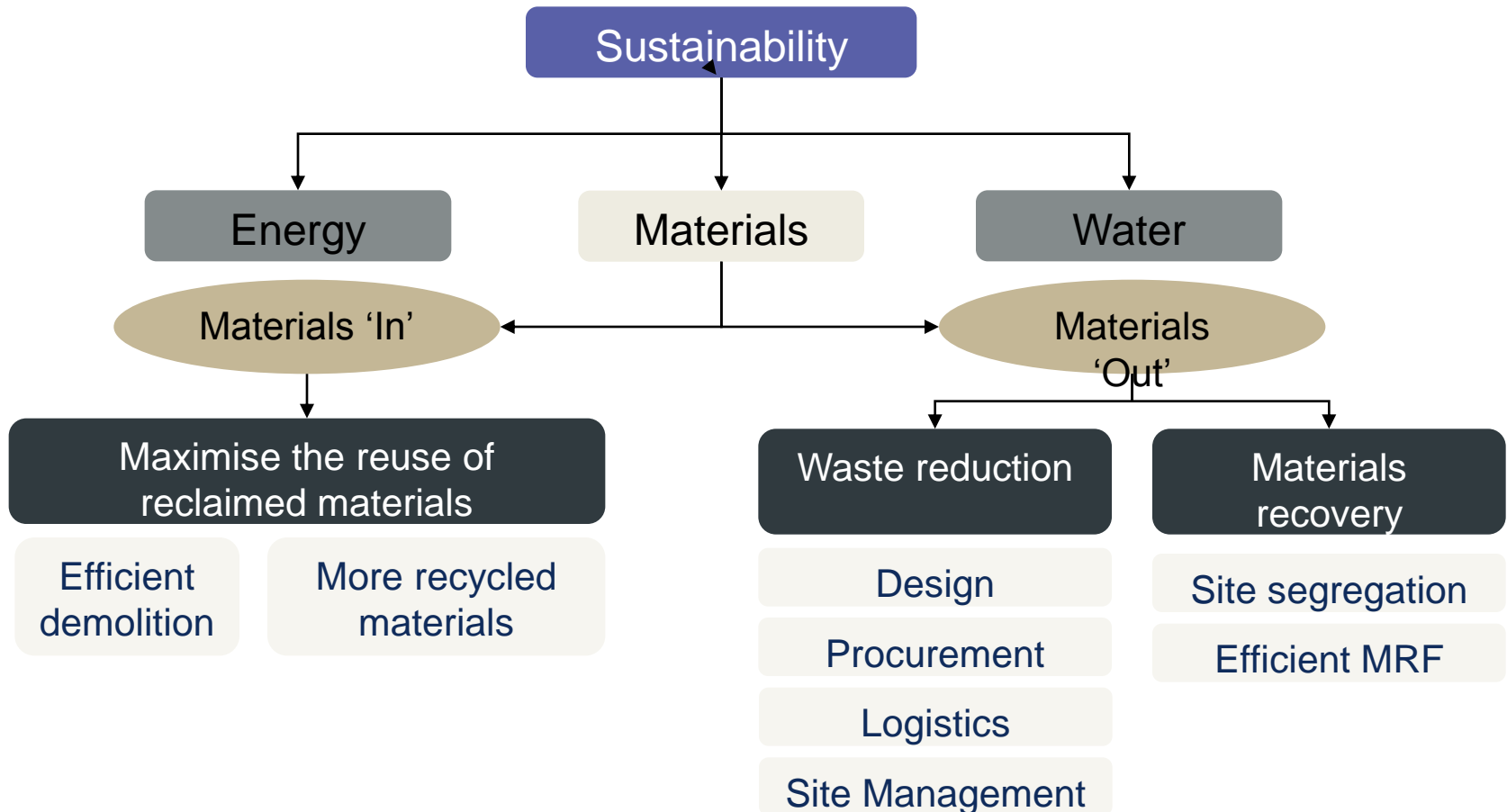
# Artist's impression – A580 junction with Old Clough Lane, Manchester bound (on-highway bus priority)



# Electric Vehicle Charging Infrastructure and Cars



# Key Opportunities





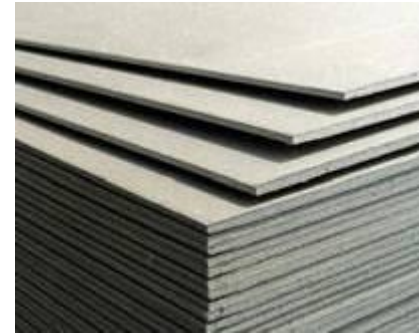
# Which of these products contain recycled content?

✓  
>50%



Lightweight block

✓  
84%



Plasterboard

✓  
>80%



Glasswool

✓  
100%



Aggregates

# Which concrete block has the highest recycled content?

>50%



~55%



>25%



~5%



## View from above the bus station





# Today

- Mobile devices
- Architecture of data
- Open data
- Context aware
- Real time useful
- Targeted
- Multimodal



# Smart Ticketing

Move from Smart Single Mode  
Single Operator



To Smart Multi Mode  
Multi operator



# Active Traffic Management

Passive Sensor Network

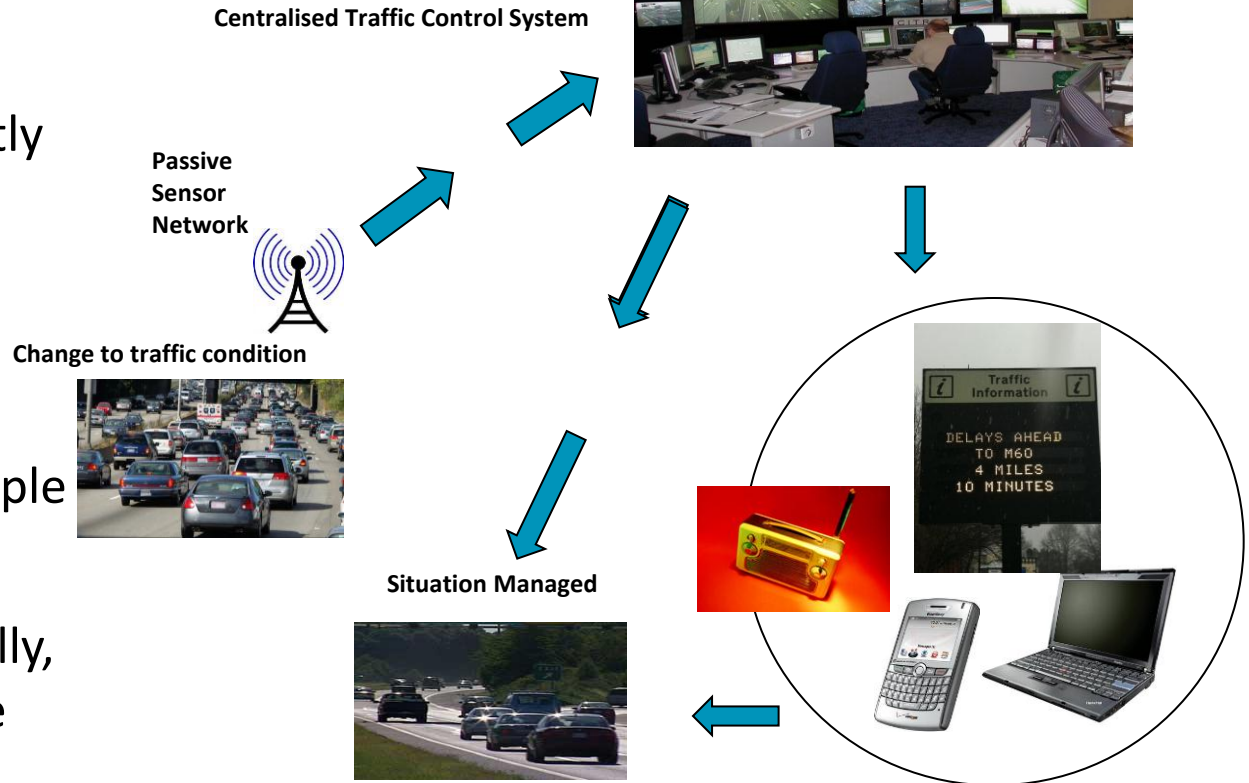
Data transmitted frequently

Processed centrally

Changes to normal traffic conditions detected

Road status through multiple media channels

Situation managed centrally, data available everywhere





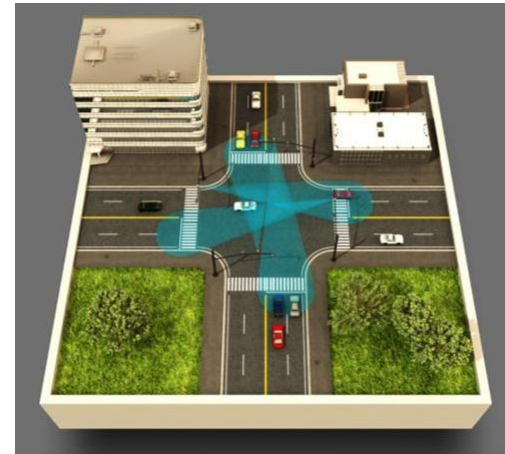
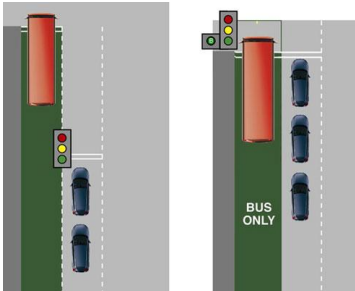
## Network Efficiency - Bus Priority



On board AVL feed to  
centralised Network  
Management Traffic  
Control System

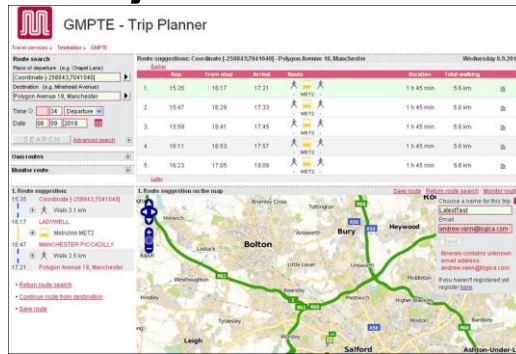


Deliver Bus Priority to  
Traffic Signals



# Traveller Information

## Plan your journey



**GMPTe - Trip Planner**

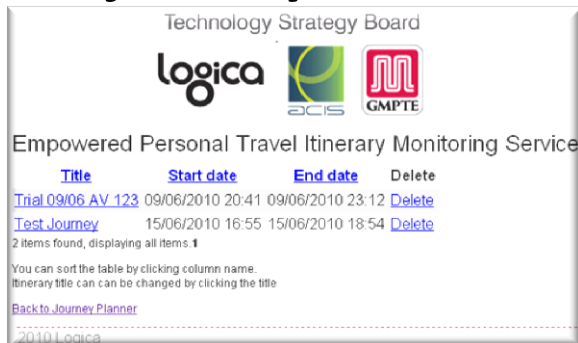
Route search  
 From:    
 To:

Route	Start	From stop	Arrive	Mode	Duration	Total walking
1	15:35	15:37	17:21	Walking	1 h 45 min	5.6 km
2	15:47	15:28	17:33	Walking	1 h 45 min	5.6 km
3	15:59	15:41	17:45	Walking	1 h 45 min	5.6 km
4	16:11	15:53	17:57	Walking	1 h 45 min	5.6 km
5	16:23	17:05	18:09	Walking	1 h 45 min	5.6 km

Map showing route suggestions on the map.



## Choose your journey



Technology Strategy Board

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Empowered Personal Travel Itinerary Monitoring Service

Title	Start date	End date	Delete
<a href="#">Trial 09/06 AV 123</a>	09/06/2010 20:41	09/06/2010 23:12	<a href="#">Delete</a>
<a href="#">Test Journey</a>	15/06/2010 16:55	15/06/2010 18:54	<a href="#">Delete</a>

2 items found, displaying all items. 1

You can sort the table by clicking column name.  
 Itinerary title can be changed by clicking the title.

[Back to Journey Planner](#)

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## Monitor your Journey



# Sustainable Urban Mobility

It is not just technology and systems

It is about engineering solutions and interventions

Imagine it like a game of chess

The pieces represent technology, with their properties and moves

The board represents our cities and towns, the game is to achieve a result using the combinations available.





# Thank You

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