

# Strategy for First Last Mile Travel





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## Introduction

Milton Keynes has been a fast growing modern city since its birth 50 years ago and is committed to further sustainable growth as expressed in its vision for 2050. Its unique layout continues to attract interest from around the world and this document sets out the emerging strategy (to be included in the updated local transport plan in 2018) for its approach to providing fast, affordable and efficient connectivity for the city of Milton Keynes and the wider area and to provide connections to both the East West Railway and East West Expressway as they come into place in future years. Good connectivity is key to the city's ambitions for growth and this strategy for the "first and last mile" of each journey is part of a wider review of transport in Milton Keynes to support transformational growth across the corridor between Oxford-Milton Keynes-Cambridge.

The objectives of this first/last mile strategy are to:

- ❖ Ensure the maximum advantage is taken from the new nationally significant east west infrastructure, putting in place transport solutions which remove the risk of congestion, promote sustainable transformational growth and ensure the region's economic capability, in line with NIC objectives.
- ❖ Working with the cities and town of Cambridge, Oxford and Northampton ensure development of transport systems which will be the example for others worldwide
- ❖ Ensure that first/last mile infrastructure schemes provide a basis for the future potential directions of growth for the city out to 2050, in line with the NIC's objectives

This first/last mile strategy covers the borough of Milton Keynes (see map on page 14)





## Business

MK is home to leading global brands including Red Bull Racing, Coca Cola, Marshall Amps with 700+ international companies based in the city. Forty five percent (45%) of the UK population is within 2 hours reach. Professional services, logistics and transport are key local sectors as well as having strengths in retail and digital. The city has the second highest concentration of SMEs in the high tech and digital sector (Centre for Cities, 2015)

### Key sector strengths:

- ❖ High tech & Digital
- ❖ Automotive and high performance technologies
- ❖ Business, financial & professional
- ❖ Logistics & distribution

The city has strong relationships with the Open University (located within Milton Keynes) a partner in the city's leading Smart City project (MK Smart), existing local universities UC:MK (University of Bedfordshire) and the University of Buckingham (based at MK Hospital) as well as nearby Cranfield University, with its core strength in automotive and technology engineering and more widely business administration.

The project to establish a new residential university, MK:U is well underway, with MK:U aiming to be the first university anywhere designed as a response to the challenges facing cities today and in the future.

The advanced manufacturing sector is key to the city, with growing supply-chains in automotive and motorsport, rail and low carbon manufacturing.

## Population & Growth

With a population of 270,000 Milton Keynes has ambitions to grow to at least 400,000 in the city and the surrounding area by 2050. This was a key part of the MK Futures 2050 Commission's report "Making a Great City Greater", which recognised the benefits of planning growth at a significant scale, rather than at an incremental level. This is covered in more detail later in this submission. Growth at this level would require around 50,000 to 60,000 new homes, underpinned and supported by infrastructure, jobs, services and facilities. This builds on the current growth aims within the draft Local Plan (Plan MK) of 1,766 new dwellings per year until 2031 bringing an expected increase of 27,500 new jobs and reaching a Borough population of 330,000 by 2031. A (not yet published) study prepared for Milton Keynes Council considers how changing trends in economic and labour market structure might impact on the sorts of jobs and industries that will exist in the future. To help ensure that Milton Keynes remains economically competitive, the MK Futures 2050 programme (the MK:U project to create a new university in the city centre, and the Learning 2050 project) and the Economic Development and Skills Strategies are addressing the skills agenda by ensuring the future local workforce are in a position to access future jobs.

Located just 32 minutes from London, the city's highly developed industry cluster includes more than 400 head office and financial services companies, and a specialist workforce of more than 22,000 people.

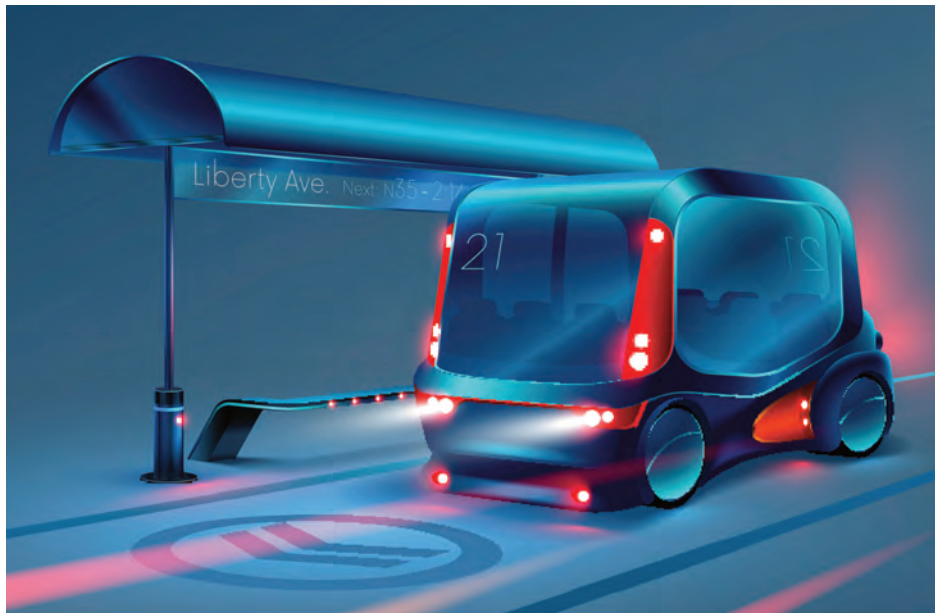
But Milton Keynes offers something more: significant savings on property and labour costs versus competitor UK locations, including 72% lower prime office rents than London.



## Connectivity

The growth of Milton Keynes has been a hugely positive story, its optimal location at the south-eastern periphery of England's central logistics hub provides businesses (particularly logistics and distribution companies) with unrivalled access to the UK national market, the high-income 'London and South East England' market, and Europe (via the Channel Tunnel and southern England ports).

The city's transport system is key not only to its origins and its history but also to its future growth and prosperity as one of the best places to live and locate in the country, now and in the future.



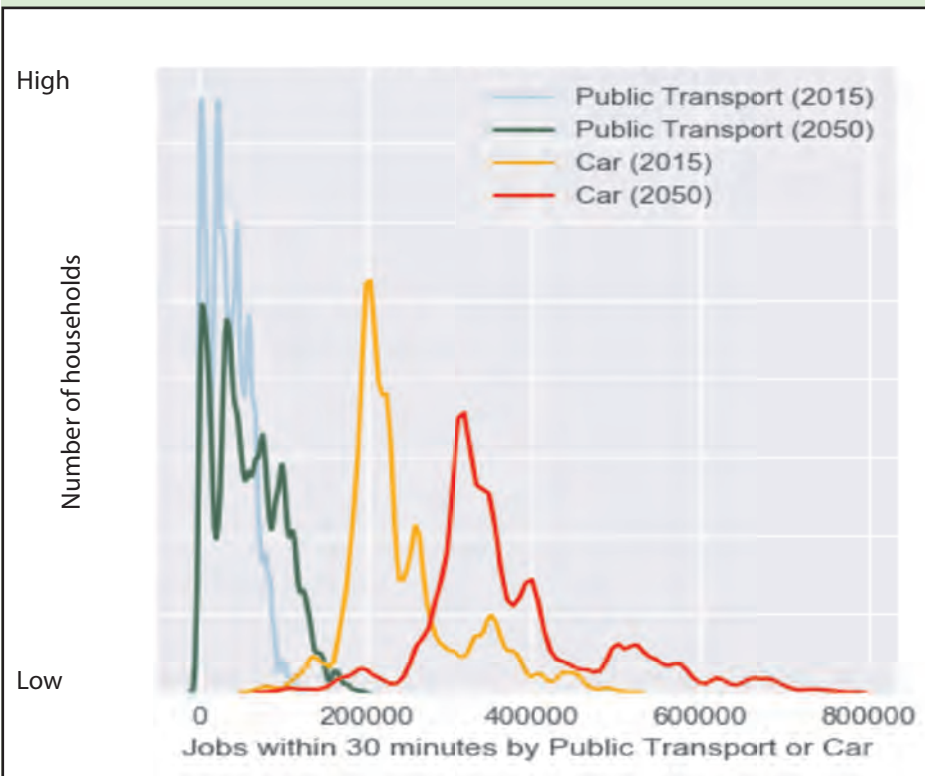
However with rapid growth comes an increased pressure on the transport network. The MK multi modal traffic model has been updated during 2017 and it evidences an increasingly congested road network towards 2031 especially during morning and evening peak travel times. There is a risk that without much greater investment in the public transport system greater growth in the economy beyond then to 2050 could be stifled by further increases in road traffic.

As the economy grows so will the number of jobs in Milton Keynes and because jobs growth is set to outstrip housing growth, a trend which is expected to continue, there will inevitably be a need for more people to travel further, increasing the already net inflow of traffic during peak times.

Further increases in demand are expected with the arrival of the East West Rail and Expressway as passenger numbers build on those new networks. Without intervention to provide alternative, more sustainable travel choices congestion will only get worse.

**Without investment in transport system there is a risk that the significant potential for growth in Milton Keynes will be stifled by congestion. Forecasts for Milton Keynes to 2050 show a steadily increasing congestion risk to the local economy.**





An example of how a lack of affordable public transport can impact on productivity is shown here.

In 2015 people who rely on the public transport system to access jobs are already disadvantaged compared to those with access to a car.

Milton Keynes aims to improve its local skill base to meet the growth demands for business however after 30 years of growth our projections show that those without cars will in fact have not greater access to jobs while access to jobs increases for those with a car.

The risk to future economic growth is that as skills improve people without cars will be less able to access the growing number of jobs or they will need access to a car to secure them. Either way the economic impact is negative without proper investment in affordable, effective public transport as business is either starved of skilled staff or constrained by congestion.



## Milton Keynes strategy for future mobility

The Vision for 2050 sets the scene for the transformation of the city into a highly skilled, highly proactive workforce with one of the best transport systems in the world, to be an exemplar transit city providing benefits for business and an exemplar for future mobility solutions across the world. It envisages a future city for which its ambitions for growth are realised through greater strategic planning with key partners and neighbours, based on high density development along transit corridors with people able to access a transport system that meets their needs based on rapid mass transit and shared use of vehicles such as autonomous pods, electric car share and demand responsive services.

This comes at a time when expectations on the UK economy for growth are at their highest – Milton Keynes already delivers one of the highest GVA per capita in the country and underlining the significance of growth for the Cambridge - Milton Keynes- Oxford corridor . The government is providing significant investment in the region with both the East West Railway and the East West Expressway, both of which position Milton Keynes at the heart of growth for the region.



To ensure the maximum advantage is taken from this new nationally significant infrastructure the council is working with the NIC, Oxford, Cambridge and Northampton to put in place transport solutions which remove the risk of congestion, promote transformational growth and ensure the region's economic capability is one of the best in the world for growth, innovation and development of transport systems which will be the example for others worldwide.



## The plan for Milton Keynes first last mile connectivity

In parallel with the development of a strategy for 2050, the updating of the Local Plan and a review of wider transport strategy (LTP) Milton Keynes has devised a strategy to deliver first last mile travel to connect with the new EWR and expressway and widen the travel to work capability of the city. Based on the modeshift targets in the table below, if achieved, the strategy will ensure Milton Keynes will achieve the high growth ambitions it holds for the future.

### MK Modeshift

Car/Other		2030	2050
65/35	city	60/40	50/50
80/20	intra-borough	70/30	55/45
85/15	inter-borough	80/20	60/40

The plan is in three phases to meet significant changes in local growth. The aim is to provide a transit system based on Advanced Very Rapid Transit (AVRT) network into which fits a range of personal travel options including autonomous pod fleets, electric car and bike share, and prioritised autonomous local bus services.

All of which lead to highly efficient modern travel hubs based at key EWR stations such as Bletchley, Woburn, and further afield at Ridgmont and Winslow. Such systems are key to a step change in people’s ability to move freely, fast and efficiently at affordable costs and on fast, clean, reliable modern transport without the need to rely on their cars during peak travel times. The above modeshift milestones are set out to illustrate what Milton Keynes believes it can achieve with the right infrastructure in place.

In parallel with other strategies within the MK Futures 2050 programme as the city’s workforce upskills the key priority for transport and connectivity in the city is the provision of transit systems which ensure businesses have access to the largest, most highly skilled workforce possible and that people are able to travel easily and affordably to and from work in a way which does not choke off the very growth that is the future potential for the city. That will require a significant increase in the amount of available travel choices based around a mass transit system that people are both proud of and willing to use for every day travel.



## New Mobility Strategy for Milton Keynes 2018 - 2036

Public Transport, Cycling, Walking, AVRT Mass Transit Corridors, Mobility as Service, Shared Mobility, Pods and Autonomous Vehicles

2011 - 2017

2018 - 2024

2025 - 2030

2031 - 2036

2037 - 2042

2043 - 2050

Interventions  
Smarter Choices

Stablise current journey times,  
Increase Mass Transit Corridors

Interventions  
Smart Travel Choices

Increase Public Transport, Cycling and Walking

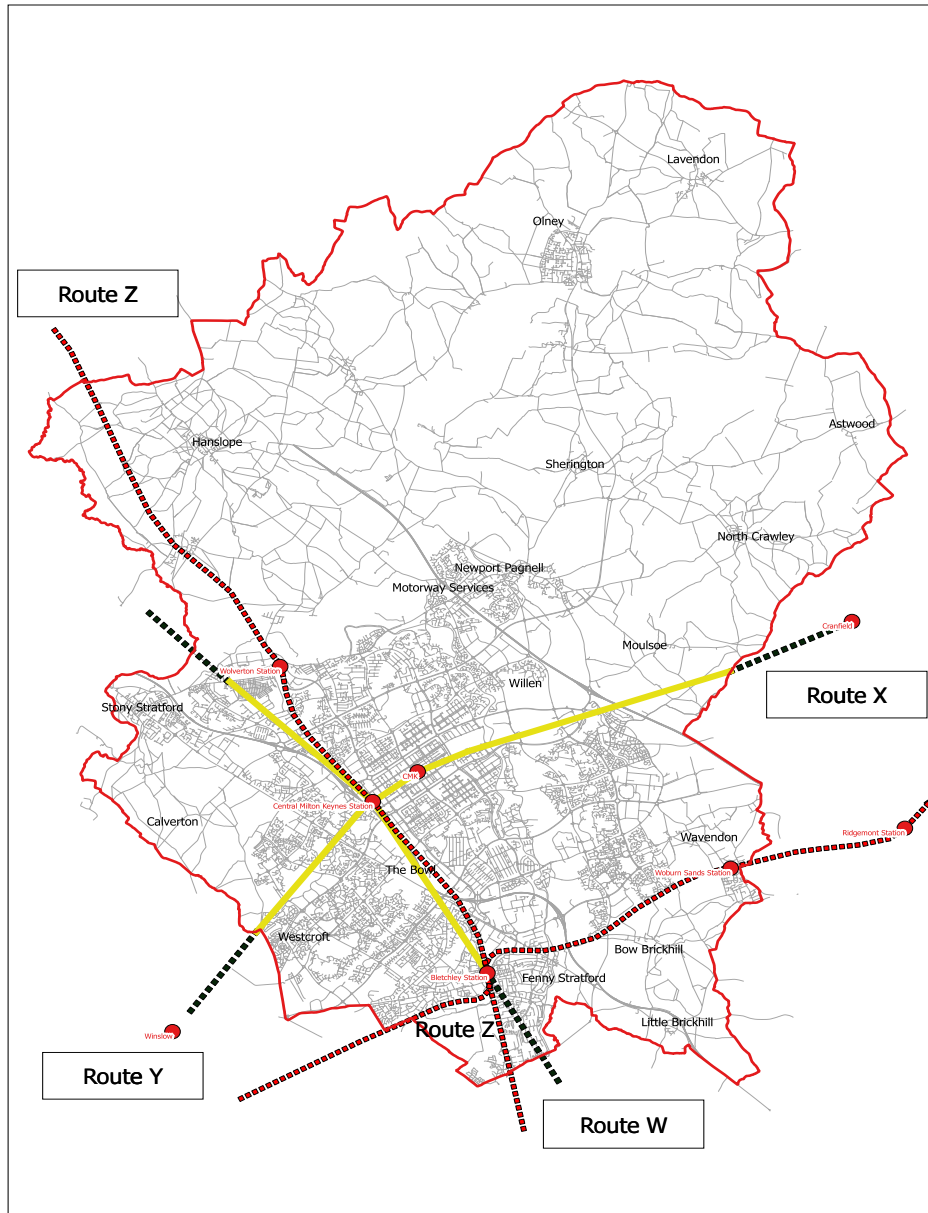
Develop Strategy

Introduce Mobility as Service, Shared Mobility, Demand Responsive Transport

Develop Strategy

Advanced Very Rapid Transit (AVRT) Networks, Autonomous and connected vehicles

"Towards Smart Sustainable Shared Mobility"



## Milton Keynes: First Last Mile Strategy

**Milton Keynes aims to be an exemplar transport city and global centre of excellence for public mass transit and Mobility as a Service**

The first step in delivering the strategy is to ensure that existing travel in the city is maintained at existing average journey times.

### Managing immediate demand - Phase 1: 2017-2024

The current transport improvement programme is being used to:-

- ❖ Reduce congestion at key junctions and routes
- ❖ Connect existing cycleways (Redways) to commuting routes to improve cycling to work choices

Dependent on funding preparation work which will be carried out in preparation for East West Rail, and later the Expressway:-

- ❖ Building capacity within the existing road network for a future prioritised mass transit system
- ❖ In collaboration with Cambridge and Oxford carry out innovation, feasibility and concept development for AVRT mass transit approaches and pilot the concept
- ❖ Investment in interchanges and Rapid Mass Transit corridors connecting to EWR and EWX
- ❖ Expanding capacity for Central, Bletchley and Wolverton stations.
- ❖ Outline and Strategic Business Cases for long term strategic infrastructure
- ❖ Potential for a "Fast Track" development option for key pipeline sites via a Housing Infrastructure Fund (HIF) bid
- ❖ Transformation model - accelerate new mobility options to effect switch from the car (capital and revenue)

## Subsequent Phases

### Connecting to First Last Mile - Phase 2: 2025-2031

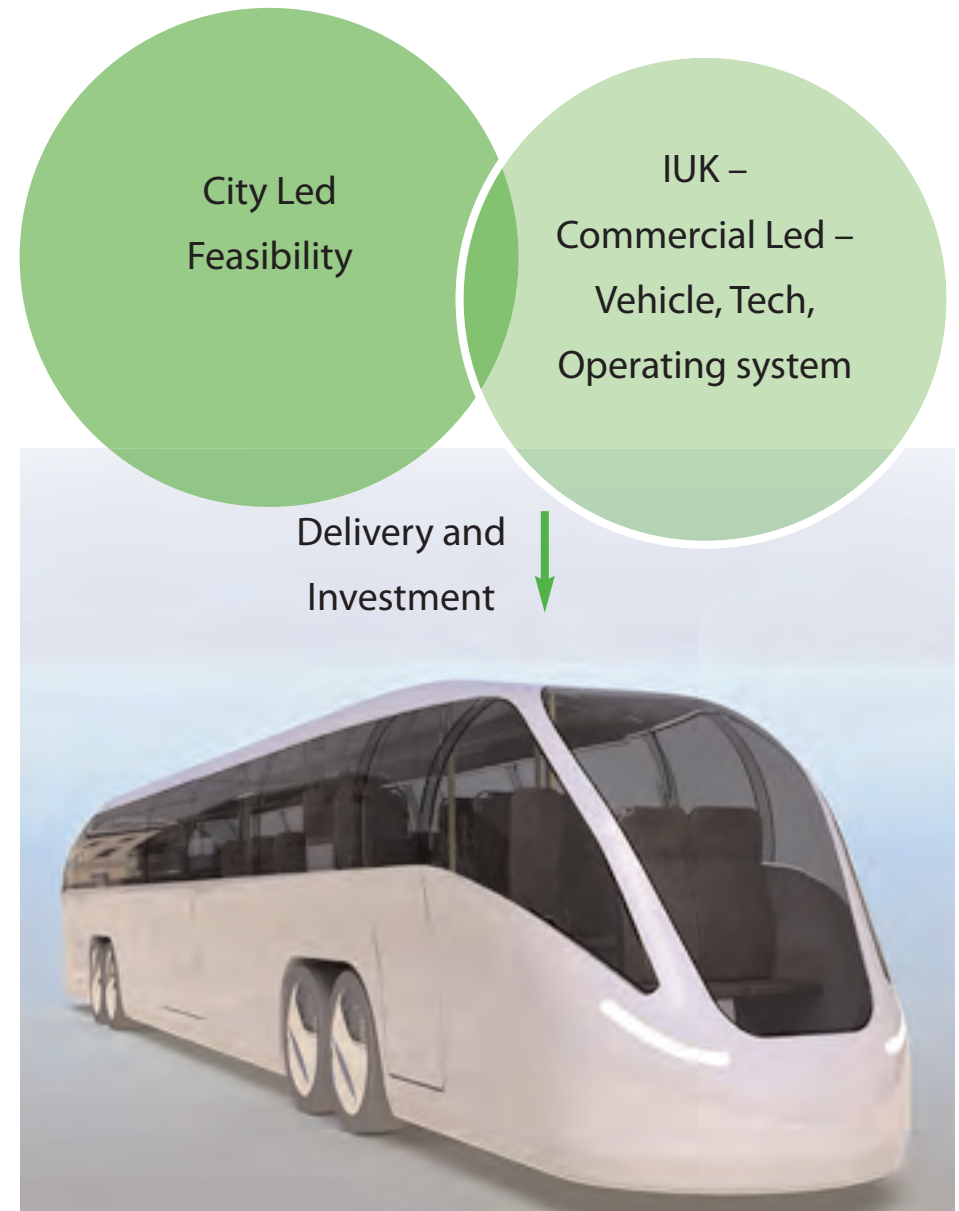
2025-2031 (Plan:MK stage)

- ❖ Expand Phase 1 work to increase capacity and mode-share to newly improved EWR hubs
- ❖ Delivery of mass transit systems – AVRT or similar
  - Bletchley – Central MK
  - Winslow and EEA to Central MK
  - Growth East of the M1 and WEA to Central MK
- ❖ Development of detailed business cases for increased mass transit investment

### Futures 2050 delivery - Phase 3: 2031-2050

2032-2050 (MK Futures stage)

- ❖ Continuation of Phase 1 & 2 programmes
- ❖ Maximising development of high-speed infrastructure
- ❖ Synchronising movement within the EWR, EWX and HS2 configurations
- ❖ Transformational growth of jobs, skills and GVA



## Key Features of Milton Keynes' Connectivity

### Multi-modal hub interchanges

A network of local buses and high-tech connected vehicles connecting to our growing Rapid Mass Transit system.

- ❖ Call points at key EWR stations/station improvement programme **£20m**
- ❖ Access to city centre via AVRT prioritisation lanes **£500m**
- ❖ EWX very rapid inter-urban transit units **£tbc**
- ❖ Park & Ride/multi-modal interchanges at key locations **£50m**
- ❖ Connecting to protected bus lanes and super cycle-ways ("Redways") **£30m**
- ❖ Milton Keynes is closely involved in development of a fully integrated transport system approach utilising a range of data gathering and journey planning technologies to support a future autonomous integrated system across all modes.

The plan is to apply this methodology to first and last mile travel across the borough.

### On demand, shared and low carbon mobility services



### City-wide movement, parking and timetable data



Wolverton - Central Milton Keynes - Furzton - Bletchley

Monday to Friday except Public Holidays  
Operator: Arriva

Wolverton (P) (08:00)	Wolverton (P) (08:15)	Wolverton (P) (08:30)	Wolverton (P) (08:45)	Wolverton (P) (09:00)	Wolverton (P) (09:15)	Wolverton (P) (09:30)	Wolverton (P) (09:45)	Wolverton (P) (10:00)	Wolverton (P) (10:15)	Wolverton (P) (10:30)	Wolverton (P) (10:45)	Wolverton (P) (11:00)	Wolverton (P) (11:15)	Wolverton (P) (11:30)	Wolverton (P) (11:45)	Wolverton (P) (12:00)	Wolverton (P) (12:15)	Wolverton (P) (12:30)	Wolverton (P) (12:45)	Wolverton (P) (13:00)	Wolverton (P) (13:15)	Wolverton (P) (13:30)	Wolverton (P) (13:45)	Wolverton (P) (14:00)	Wolverton (P) (14:15)	Wolverton (P) (14:30)	Wolverton (P) (14:45)	Wolverton (P) (15:00)	Wolverton (P) (15:15)	Wolverton (P) (15:30)	Wolverton (P) (15:45)	Wolverton (P) (16:00)	Wolverton (P) (16:15)	Wolverton (P) (16:30)	Wolverton (P) (16:45)	Wolverton (P) (17:00)	Wolverton (P) (17:15)	Wolverton (P) (17:30)	Wolverton (P) (17:45)	Wolverton (P) (18:00)	Wolverton (P) (18:15)	Wolverton (P) (18:30)	Wolverton (P) (18:45)	Wolverton (P) (19:00)	Wolverton (P) (19:15)	Wolverton (P) (19:30)	Wolverton (P) (19:45)	Wolverton (P) (20:00)	Wolverton (P) (20:15)	Wolverton (P) (20:30)	Wolverton (P) (20:45)	Wolverton (P) (21:00)	Wolverton (P) (21:15)	Wolverton (P) (21:30)	Wolverton (P) (21:45)	Wolverton (P) (22:00)	Wolverton (P) (22:15)	Wolverton (P) (22:30)	Wolverton (P) (22:45)	Wolverton (P) (23:00)	Wolverton (P) (23:15)	Wolverton (P) (23:30)	Wolverton (P) (23:45)	Wolverton (P) (24:00)
08:00	08:15	08:30	08:45	09:00	09:15	09:30	09:45	10:00	10:15	10:30	10:45	11:00	11:15	11:30	11:45	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30	14:45	15:00	15:15	15:30	15:45	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	19:15	19:30	19:45	20:00	20:15	20:30	20:45	21:00	21:15	21:30	21:45	22:00	22:15	22:30	22:45	23:00	23:15	23:30	23:45	24:00



## Electric Vehicles

Milton Keynes is the first of the UK's Go Ultra Low cities, designated by Government to promote and deliver the uptake of Ultra Low emission vehicles. The city currently has one of the highest concentrations of charging infrastructure in the UK with over 200 city centre public charging units, and a city network of 60 rapid chargers. The focus of the MK ongoing programme is to concentrate future infrastructure on destinations, workplaces and residential locations without off street parking. The council is also working with manufacturers and dealers to understand potential customer's needs. Its current programme has targeted an uplift of sales of ULEVs to 20% of all sales by 2021, compared with a national target of around 5%. Sales in MK are currently running at around twice the national average.

The council has moved the maintenance of the network to the commercial market which allows the programme to continue and has attracted government funding support for continuing our programme until 2021.



## Stakeholder involvement

To deliver first last mile solutions Milton Keynes is working with partner authorities across the Oxford-Milton Keynes-Cambridge corridor, with Highways England in support of the Expressway and to progress improved capacity across the M1 to drive further growth and on upgrading Junction 14 of the M1. It is member of the East West Rail consortium and participates in both the Western Section and Central Section authority groups. The city has a renowned reputation for being involved in the technological advancement of transport working with Cranfield University and the Open University, Transport Systems Catapult and Automotive industry partners.

For the review of its transport strategy there is a full programme of engagement during Autumn 2017 with local communities, businesses and all key transport system stakeholders including engagement with developers on future growth plans.



## Freedoms and Flexibilities

The case is being made for increased freedoms and flexibilities

- ❖ **Traffic** - ability to integrate parking and traffic management solutions to experiment with demand led parking charging and a greater choice of travel choices using incentive based travel systems that reward rather than penalise commuters.
- ❖ **Transport solutions** - ability to co-ordinate all types (modes) of travel within one operating framework. This will enable taxis, hackney cabs and buses to be integrated into a single model of scheduled and demand responsive system that suits the passenger needs for highly flexible travel within the Mobility as a Service concept.
- ❖ **Planning** - flexibilities and powers to enable greater use of pooled funding and encourage more ambition contribution from developers.

### Example Freedoms

Milton Keynes needs the ability to negotiate and secure agreements consistent with ongoing discussions across the Central Area of the Corridor to help realise the additional economic and housing growth ambition for the CamMKOx Corridor including:-

- ❖ A package of proposed freedoms and flexibilities specifically including CIL and Section 106 funds with the ability for greater pooling to support delivery, including the removal of pooling limits.
- ❖ Funding for and engagement in developing a shared Central Area Infrastructure Assessment, to identify growth opportunities and constraints aligned to developing a prioritised investment plan.
- ❖ That DCLG instruct all national bodies and statutory agencies to participate in a Central Area wide, Service Level Agreement (or similar) to ensure consistent timely input on schemes and responses to consultations on schemes and Local Plan making stages.

### Demand led parking charges

- ❖ An ability within (or exemption from) current parking charging regulations to allow a variable charge to be applied using technology to detect and communicate available spaces and guide vehicles to them for a pre-specified charge. This would enable more efficient use of current spaces and reduce congestion. Current regulations do not permit a dynamic live pricing approach.

## Finance

### PHASE 1: 2017-2024 (EWR stage)

£220m

- £25m feasibility and proof of concept for AVRT fund (cross corridor consortium approach)
- £145m first phase AVRT (Routes W & X)
- £50m multi-modal station hub improvement programme, redways, park & ride, prioritised AVRT access
- Potential for fast track pipeline developments, HIF bid integrated into transit corridor approach

### PHASE 2: 2025-2031 (Plan:MK stage)

£270m

- £210m AVRT city wide strategic network (Routes Y & Z)
- £50m multi modal station hub improvement programme
- £10m future tech network development – pods, e-bike

### PHASE 3: 2032-2050 (MK Futures stage)

£500m ++

- Super Growth fund
- Exemplar Transit City for growth led by MaaS and AVRT fast connectivity

**Programme Total £990m**





### Investment need

Options are being considered to meet the need for increased rapid mass transit. As demonstrated above for the people of Milton Keynes to benefit from the investment in skills they need investment in transport systems to ensure they are able to reach the increase in jobs which arise from growth without having to travel by car which risks choking the very growth which provides for their wellbeing in the future.

Locally controllable funding	£ millions	Notes
S106/Tariff	150	Requires removal of pooling restrictions as previously discussed requires continuation of NHB without further reductions assuming long term deal with operators or external financing of new MK City transport authority
New Homes Bonus (additional Dwellings beyond Plan)	62	
Private Sector Investment	290	
Subtotal	502	
<b>Additional Direct Grant from government</b>		<b>Notes</b>
Possible sources		Requires move towards 100% BRR as soon
Business Rate Retention	90	Would require new provision, assumes MK average £3,833 per new dwelling
Stamp Duty Retention (additional Dwellings beyond Plan)	148	
National Contributions/ Treasury support	250	Would require a 'deal' for MK within or out-with SEMLEP
Subtotal	488	£16m per year long term support (30 years)
<b>Total</b>	<b>£990m</b>	



