The Milton Keynes: Experience of deploying Self Driving Vehicles on its streets

15th October 2078
Brian Matthews
Head of Transport Innovation
Milton Keynes Council
Milton Keynes - Location

- New Town started in 1967
- Midway between London & Birmingham.
- Centre of Oxford - MK – Cambridge Arc.
- National Infrastructure Commission – primary focus for growth
Central Milton Keynes - Plan to Reality
50 years of Growth
• Address barriers to sustainable housing and jobs growth

• Improve the lives of citizens

• Build leadership in urban innovation

Estimated population growth:

2017 = 270,000
2050 = 500,000+
Smart Sustainable Shared Mobility

Agreement by commentators:
- Electric vehicles
- Smart parking & nav
- Smart car sharing

2017 - 2030 timeline:
- Autonomous Public Transport
- Connected Vehicles
- Smart demand-responsive PT
- Mobility As A Service
- Fully autonomous off-street vehicles
- Fully autonomous on-street vehicles
- Road pricing

2017 - the next paradigm?
- Uncertainty guaranteed

2017 - future outcomes:
- more of the same
- more transit
- more sharing
- more autonomy
- more activity
Smart Sustainable Shared Mobility

Agreement by commentators:
- Electric vehicles
- Smart parking & nav
- Smart car sharing

- Autonomous Public Transport
- Connected Vehicles
- Smart demand-responsive PT
- Mobility As A Service
- Fully autonomous off-street vehicles
- Fully autonomous on-street vehicles
- Road pricing

2017 to 2030

2017

Uncertainty guaranteed

more of the same
more transit
more sharing
more autonomy
more activity
UK Autodrive
Milton Keynes leading the way in partnership with Coventry and the motor industry
ARUP

MK COUNCIL

CITIES PROGRAMME

L-SATS DEVELOPMENT PROJECT

M1 CAR DEVELOPMENT PROJECT

DRIVERLESS TRANSPORT STRATEGIES ROUND TABLE

UKAutodrive

MILTON KEYMES COUNCIL
M1 CAR DEVELOPMENT PROJECT

UK Autodrive
L-SATS DEVELOPMENT PROJECT
MK COUNCIL

CITIES PROGRAMME

Public Attitudes Survey

Congestion Simulations

Business Case Evaluation

‘Last-Mile’ Service Demonstration

Technology Scalability
Why?

The World Health Organisation predicts that 70% of people will live in urban environments by 2050.

- Urban transportation challenges require innovative solutions
- Driverless cars could have a significant role, providing safe, efficient and low carbon mobility to the public

- Safety
- Productivity
- Capacity
- Social inclusion
M1 Saloon Cars
Deploy a range of vehicles on live public highway in MK and Coventry
Public Road Demonstrations

Features designed to address city challenges
Low-Speed Autonomous Transport System (L-SATS)

L-SATS

Lead Partners
- RDM
- Cambridge University
- MKC

Primary Aim
To deliver a low speed autonomous public transport system in Milton Keynes
POD as a Last Mile Passenger Transport Service
MK COUNCIL

CITIES PROGRAMME

Public Attitudes Survey

Congestion Simulations

Business Case Evaluation

‘Last-Mile’ Service Demonstration

Technology Scalability
Improved highway capacity
Results (Average Delay reduced)

Average Delay of Different Vehicle Types

- CAVs - Cautious
- Normal Cars
- CAVs - Assertive

AVERAGE DELAY (SEC)

NETWORK THROUGHPUT (VEH/HR)
Exam question, can you fit full sensor pack into vehicle for less than £10K
October 2016 & 2018
• 49 questions
• Over 3,000 responses
• 2850 valid responses

85% retain control option
74% retain option to drive manually
35% would use
15% expressed opposition

85% would use a self-driving car

- Shopping: 23%
- Commuting: 22%
- Social/Leisure: 22%
- Drinking: 15%

UK Autodrive
Thank You