

Demand Responsive Transport: *MK Connect*

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Demand Responsive Transport and Health

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- The presentation provides an overview of the scoping study, which focuses upon a promising DRT system design in Milton Keynes
- This transport research has not been undertaken from a health perspective but some health aspects have been identified - varying from a range of individual health issues through to systemic public health aspects
- The research is ongoing and so the discussion today could help direct how our research develops

Public transport's structural challenge

- There is a long term structural problem with the service model for fixed route public transport systems
- Travel demand is becoming dispersed in space, time and across purposes – a trend accelerated by the pandemic
- 21st century travel behaviours and lifestyles don't easily fit with fixed bus routes and schedules
- This is the long-term structural reason why public transport struggles and car use burgeons – particularly outside major cities



Transforming public transport

- DRT has struggled – but now, perhaps, its time has come, with the impetus coming from technology companies who have revolutionised other service sectors
- DRT can have a useful role to play as, with other emerging transport innovations, it can be part of transforming a public transport network to fulfil 21st century mobility patterns
- But there is a danger of only applying innovation within the existing public transport business model (e.g. 2021 National Bus Strategy), which systemically cannot provide such a transformation
- Our investigation focuses on the DRT model used in Milton Keynes and what that means for transport in cities as a whole

Milton Keynes Connect DRT

- ViaVan (now Via) started a commercial DRT service in MK in 2018
- In 2019 MK Council ran a trial with Via on incorporating features of a public transport service (including ENCTS passes and concessionary fares)
- Following this, in 2020, Via won the contract to replace council-supported services with DRT
- A very basic supported bus network in MK cost £2.8m in 2020-21 and was projected to exceed £3.5m in 2021-22
- Via's contract reduced the cost of council supported services to £1.9m
- But it's not just about cost cutting.....



Designed to complement commercial bus services

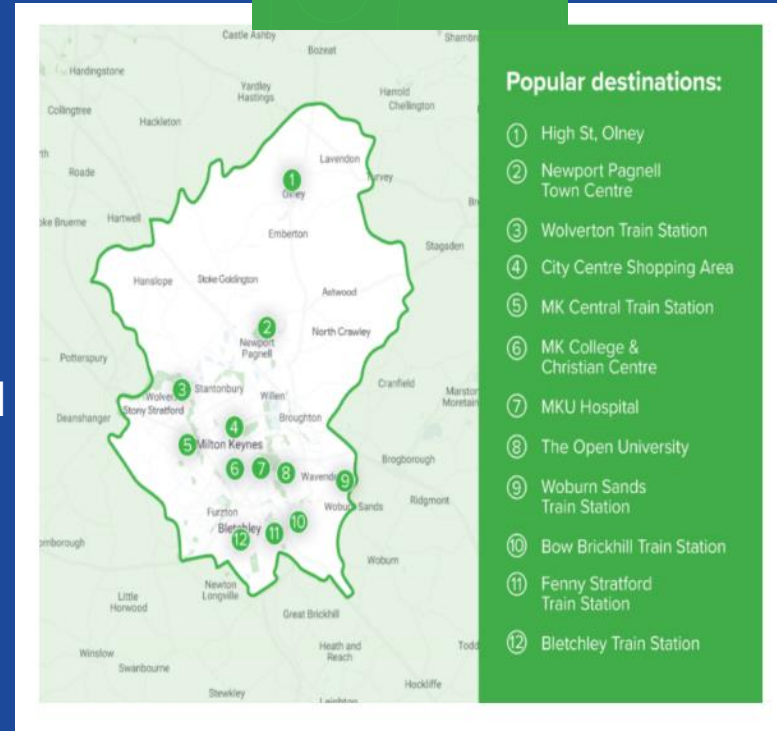
- The concept for *MK Connect* is that it will enhance local bus services as a whole – it does not compete with commercial scheduled bus routes
- If a user's trip request can reasonably be made using scheduled buses, the booking algorithm directs them to that and will not accept a *MK Connect* booking
- But people with mobility difficulties can register their needs. Then they will always be accepted on *MK Connect* - services will be door-to-door and wheelchair accessible vehicles allocated when needed
- The fleet is mainly battery electric-powered vans



Milton Keynes Connect

MK  Connect

- The MK Connect service area covers the whole of the borough of Milton Keynes (about 300 sq km), operating 0600-2300 Mon-Sat and 0900-1800 on Sundays
- People are taken from pickup to drop off points
- Users need to register with a credit card and request trips via an app
- Bookings can also be made by phone
- Fare is at a bus service level (£2.50 off peak/ £3.50 peak) with cut price *All in One* youth/student tickets and ENTCS passes accepted



MK Connect Performance

- Via use 8 seater people carriers operating under Private Hire Regulations (not PSV)
- Initial fleet (April 2021) was of 13 electric Vivaro and 5 wheelchair accessible diesel vehicles
- This matched lockdown demand. Eight more vans have now joined the fleet.
- By the end of July 2021, ridership has grown to about 20,000 trips per month.
- By early October 2021, all bus use in MK has recovered to 70% of pre-pandemic levels
- 50% of *MK Connect* trips are full fare, 25% youth/student discounted fare and 25% using the free Senior Concessionary Pass



MK Connect Vivaro EV van

A viable model for DRT?

- *MK Connect* looks like a cost-effective DRT model that could be applied in many mid-sized settlements; possibly also in city suburbs and peri-urban fringes
- The service design incorporates concessionary fares and does not abstract custom from commercial fixed route bus services.
- The *MK Connect* contract draws on the established IT systems of a key technology provider
- It does not attempt to start DRT from scratch but, in replacing supported bus services, there is existing finance and an existing customer base



Discussion issues arising from the scoping research

- A good public transport service is part of a city's public health (both physical and mental health)
- In the post pandemic context, many local authorities are facing a bus dilemma: pressures on their bus support budgets while they need better bus services for pandemic recovery, economic, environmental, social and public health reasons
- Other expenditures likely to be prioritised
- The rapid implementation, good uptake and financial viability of *MK Connect* suggests a radical innovative approach is now possible and provides substantial benefits.
- This is an important contribution to transforming bus services for 21st century travel needs



DRT design issues

- *MK Connect* substantially widens bus service accessibility by overcoming the structural failing of the conventional bus model to serve modern patterns of travel demand.
- Users (particularly those with mobility difficulties) really appreciate the service
- BUT - all service designs work better for some users and less so for others
- Conventional fixed route services favour regular travel to major destinations – and don't meet modern travel needs very well
- The *MK Connect* service design is almost the opposite – it caters best for occasional dispersed travel and not the regular user.
- The ticketing system of *MK Connect* does not have discounted weekly/ monthly passes, making it expensive for commuters and regular users



Developing the DRT design

- The diversion of trip requests from *MK Connect* onto fixed route services can be problematic when appointments or linking to trains etc. are concerned.
- There can be an unsettling uncertainty as to whether the trip is accepted on *MK Connect* or if the request is diverted onto a longer multi-route trip via scheduled bus routes
- MK Council accept that the service design needs ongoing refinement (but the financial model constrains some actions)
- Overall, DRT can complement line buses in a far more systematic way than just a simplistic ‘last mile’ add-on, to produce an overall network more appropriate to 21st century patterns of travel
- *MK Connect* is a step towards this
- While the role played by innovative tech sector firms is crucial and should be maintained, there is a need for a strong public sector role to fully realise the role of DRT in a city’s overall public transport system

THANK YOU

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