



Strategic Transport Leadership Board

3 March 2023

Agenda Item 5 – Future of Mobility workstream

Recommendation:

It is recommended that the Board:

- a) Notes EEH's new role in the future of mobility workstream and agrees to the development of a pan-regional cross sector partnership on the future of mobility and innovation in transport**
- b) Notes the success of autonomous vehicle innovation funding bids in the region and receives a presentation on one of the projects involving the HERT in Hertfordshire**
- c) Agrees the proposed approach to supporting a bid for a net zero transport research hub**

1. Purpose of report

- 1.1. This report sets out how EEH and the region at large is looking to harness the area's expertise in future of mobility innovation.

2. Key points to note

- 2.1. Going forward, and subject to Board agreement, EEH will take overall oversight for the future of mobility workstream. Historically, there was confusion within the Oxford to Cambridge Arc Programme over whether this work should have been their remit rather than EEH's.
- 2.2. The region has been successful in several bids for funding to support innovative autonomous vehicle projects.
- 2.3. This includes for the HERT rapid transit project, which was supported by EEH. The Board will receive a presentation from the HERT team.
- 2.4. EEH is keen to support the development of a bid for a new net zero transport research centre of excellence.

3. Context

- 3.1. EEH's transport strategy's vision is to 'support sustainable growth and improve quality of life and wellbeing through a world-class, decarbonised transport system which harnesses the region's global expertise in technology and innovation to unlock new opportunities for residents and businesses, in a way that benefits the UK as a whole'.
- 3.2. The region is home to many knowledge intensive industries, including in the 'future of mobility' sector that form a key part of the economy.
- 3.3. Our local authority partners and academic and research clusters have been successful in harnessing the innovation which exists in the region, which we are keen to support and grow moving forwards.

- 3.4. Expanding the region's use as a 'test bed' for new mobility solutions provides the opportunity to improve our transport system while supporting economic growth and jobs creation.

4. Future of mobility workstream

- 4.1. Based on Board feedback and ambition, EEH business unit has agreed to take greater oversight of a 'future mobility' workstream. EEH, working alongside our associated pan regional partnerships, will seek to create a new cross sector community of interest, bringing the area's innovation and future of mobility businesses, assets and opportunities together. The purpose of the group and a proposal on future joint initiatives will be presented to the Strategic Transport Leadership Board in July 2023.
- 4.2. Subject to Board agreement, early in the new financial year, EEH will commission a high-level, light touch overview of the future mobility industry in the region, to understand its value to the region and key associated indicators. A brochure will be developed setting out the future of mobility landscape in the region and the ambition for the future - the first step in establishing a regional approach to driving both public and private investment into the Heartland and supporting wider collaboration.
- 4.3. The development of this resource will support further collaboration between all sectors, particularly developing more links between the public and private sector.

5. Autonomous vehicle innovation funding

- 5.1. The regional is already experiencing significant successes in innovation and the future of mobility.
- 5.2. As part of their ongoing investment into innovation and future mobility, the government has recently backed several large demonstration projects and funded further business and use case development focusing on the implementation of connected and autonomous vehicles. 4 of the 11 successful projects across the UK were located in our region, with EEH playing a direct role in supporting the successful bid for funding in Hertfordshire.
- 5.3. These were:
- 5.4. *Cambridge Connector*: This project will pilot on-demand self-driving vehicles. Up to 13 electric vehicles will provide passenger services that integrate with existing transport services within Cambridge across two sites: Cambridge University's West Cambridge Campus and the Cambridge Biomedical Campus. £8.7 million was awarded by government to the project, matched by industry to a total of £17.4 million. The Greater Cambridge Partnership is the lead partner for the project, working in partnership with Cambridgeshire County Council, Cambridge City Council, South Cambridgeshire District Council and University of Cambridge.
- 5.5. *Hertfordshire Essex Rapid Transit (HERT)*: HERT envisages a new, sustainable passenger transport network that will carry more people than a car but will be more convenient and reliable than a traditional bus. It will run from Hemel Hempstead and West Watford, joining just south of St Albans in Hertfordshire, to Harlow in Essex and onwards to Stansted Airport. EEH worked with partners including Hertfordshire County Council and City Science to secure £142,000 for a project into the potential use of segregated, 'dedicated, driverless' road space along the HERT route: the A414 between Hemel Hempstead and Stansted Airport. Roads that would benefit from segregated self-driving vehicle operations have been identified using previous research conducted by the project team for the National Infrastructure Commission. Representatives from Hertfordshire County Council will present an update on HERT to the Board.
- 5.6. *Milton Keynes advanced very rapid transport (AVRT)*: AVRT is a new concept in mass transit, using automated vehicles on purpose-designed segregated pathways. Milton Keynes City Council secured £200,000 funding to commission a study to determine how an AVRT project could fit in with the city's current and proposed infrastructure. The study will look at how AVRT could provide future transport solutions and deliver fast, frequent and reliable public transport. An area of key routes around 18 miles in and around Milton Keynes will be the focus of the study.



- 5.7. *Cambridge Autonomous Rapid Transport*: Greater Cambridge Partnership secured £92,000 to explore the potential of connected and automated mobility technology to support the delivery of a new development and solve existing challenges of overly congested roads, and homes and job creation, in a dense and urban area. The Cambridge Autonomous Rapid Transit corridor would run through eastern Cambridge linking the Newmarket Road Park & Ride facility (Newmarket Road/Airport Way) through the Cambridge Airport site with Cambridge Station.
- 5.8. The level of success that the region has had is a reflection of its potential and the important role it has for a technology/innovation led future for the UK.

6. Net zero research hub

- 6.1. EEH is exploring opportunities to work with academic partners to support a proposal for the new 'net zero transport for a resilient future' research hub.
- 6.2. The hub is being launched by the government to develop innovative measures to decarbonise and improve transport. It will be a partnership between government departments, industry and UK Research and Innovation (UKRI).
- 6.3. It will drive decarbonisation solutions, such as greater use of recycled materials and reducing the carbon footprint of repairs and maintenance. The hub will also develop and implement innovative measures to ensure future transport is resilient and meets the challenges of climate adaptation, such as changes to weather and water levels. It will focus on the UK's transport sector's needs over the next 25 years as the government works to meet its 2050 net zero legal requirement, helping to ensure the sector can build UK skills, jobs and innovation.
- 6.4. The hub has a fixed start date of 1 September 2023 and can run for up to 43 months. Prospective hubs must meet criteria including being based at a research organisation eligible for UKRI funding; engagement between academia, industry, policymakers and third sectors; and demonstrate at least £2m of matched funding from project partners at application stage and a plan to increase this to £12.5m during the lifetime of the hub.
- 6.5. The business unit has had an initial meeting with the Arc Universities Group. EEH officers will continue to work with this group and other interested parties to discuss opportunities to support a pan-regional bid.

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March 2023

