

4th November 2019

Future Mobility

Purpose of Report

This report considers the business growth opportunities for the Sheffield City Region arising from technology and innovation in the transport sector.

Freedom of Information

This paper is not exempt from FOI requests and will be published in line with the Combined Authority Publication Scheme.

Recommendations

Board members are asked to:

- Consider the findings of recent research into Future Mobility services in the Sheffield City Region and how to support the business growth potential for SCR companies operating in future mobility markets.

1. Introduction

- 1.1** The SCR Transport Strategy published in early 2019 included technology and innovation as a cross cutting theme. In July 2019 the SCR Executive commissioned Arup to undertake a review of Future Mobility Services across the Sheffield City Region, to consider the opportunities offered by future mobility trends and to identify unique transport technology assets in the city region that could support the delivery of the SCR Transport Strategy.
- 1.2** The UK's Industrial Strategy identifies the potential for the UK to lead the world in innovation in how people, goods and services move. The Government published the Future Mobility: Urban Strategy report in 2019 which sets out the principles the government will adopt to usher in an era of transformation in the transport sector. The Review of Future Mobility Services across the SCR report identifies opportunities to engage the business community to support improvements in transport services and business growth.

2. Proposal and justification

- 2.1** The SCR Transport Strategy will be delivered through a series of Implementation Plans concerning Rail, Roads, Active Travel and Mass Transit. Two cross cutting themes are identified in the Strategy – Technology and Innovation and Environment and Quality of Life. These will also be the subject of implementation or action plans.

- 2.2** In 2019 the Government published Future Mobility: Urban Strategy which sets out its approach to the development of new technologies as well as nine principles that will be adopted to secure benefits and reduce risks.
- 2.3** As part of the Budget 2018, £90m of funding was announced as part of the Transforming Cities Fund to create Future Mobility Zones. In May 2019 the SCR Executive submitted an Expression of Interest and unfortunately this was unsuccessful, however the bidding process highlighted the need for further work to develop our approach to technology and innovation in the transport sector.
- 2.4** The SCR Executive commissioned Arup to provide an overview of the drivers of change and key future mobility trends, a mapping of the work currently underway in the SCR and recommendations to support the development of a work programme relating to transport technology and innovation in line with the Government's Principles. An Executive Summary of the research and recommendations is provided at Appendix 1.
- 2.5** The research has identified innovative mobility solutions that have already been delivered in SCR including tram-train, clean bus technology, electric bus feasibility, integrated TravelMasters and ebike trials. It also identified key companies operating in this sector such as CPH2, the Floop, ITM power and 3squared. The report also identifies our research and development assets such as Sheffield Robotics and Lab4Living.
- 2.6** A workshop with industry specialists provided further information on the most significant disruptions and the timeframes in which these are likely to occur as well as suggestions where Sheffield City Region and partners might focus attention.
- 2.7** The draft Report recommends five key moves for the SCR and 45 specific actions. The five key moves are:
1. Publicise the great work already underway in the future mobility space in the SCR
 2. Create a transport data platform for the SCR
 3. Identify and realise opportunities to test future mobility technologies
 4. Foster an ecosystem of mobility technology companies
 5. Review changes to the governance and regulation of SCR's transport system to deliver future mobility solutions.
- 2.8** The Report recommends a number of actions that could be pursued immediately, these are:
- Work with experts from the digital community to engage with the issues from their perspective
 - Teach people digital skills, by identifying target groups and designing and implementing a programme to achieve this
 - Progress further work on zero emission buses to deliver on this ambition.
 - Align the SCR roads Implementation Plan with RIS2 and encourage data sharing
 - Trial demand-responsive transport
- 2.9** Recommendations relating specifically to business opportunities are:
- Work with experts from the digital community to engage with the issues from their perspective
 - Ensure the SCR MCA understands what industry standard specifications are for new technological/data developments and ensure they are applied in the design of physical and digital infrastructure undertaken by SCR
 - Develop the future mobility capability of the City Region's technology and logistics sectors by trialling autonomous goods vehicles and truck platooning on the City Region's motorways and major road network
 - Develop the future mobility capability of the City Region's technology and logistics sectors by trialling drones and delivery robots
 - Establish a data platform to encourage development of new mobility services and solutions

- 2.10** The Report notes that the successful adoption of future mobility technologies and services in SCR is reliant not only on technological advancement, but also on the governance and regulatory regime within which they operate. Innovation can be encouraged through a more outcome-based approach to procurement of goods and services. It is recommended that the SCR MCA is clear on its role in regulation and shaping the market to secure the outcomes it wants for example safety, integration and carbon emission reductions. The opening-up of data also provides opportunities for the development of new services and solutions.
- 2.11** There are business growth opportunities for companies in the Sheffield City Region arising from UK transport investment. Where the UK is at the forefront in utilising new technology UK companies can benefit from the market opportunity to grow to develop innovation products and services. The 'home city' market can support companies to grow through collaborative strategic projects that support IP development and innovation.
- 2.12** LEP and Business Growth Board members will want to consider how to support companies operating in future mobility markets when developing business growth support for example through partnerships, investment and internationalisation support.
- 2.13** The Sheffield City Region is home to significant innovation assets that could support businesses from SCR and more widely to develop future mobility products and services. This could be delivered through a specific structured business support programmes such as accelerator or incubator programmes.
- 2.14** The Report will form the basis of the development of an implementation plan that underpins the delivery of the Transport Strategy. The outcomes of the research work will also be used to strengthen any applications to future rounds of Government funding. Recommendations will be presented to the Transport Board in October 2019 and LEP Board in November.
- 2.15** The Board is invited to note the five key moves, recommendations and business growth opportunities of new transport technologies and innovation.

3. Consideration of alternative approaches

- 3.1** This report focuses on how SCR might deliver business growth benefits from wider trends in transport technology and innovation. Cities and city regions are adopting a wide range of approaches to supporting future mobility from setting out to deliberately pilot new technologies, to using procurement to create open data platforms, to creating wider 'smart city' strategies and co-creating solutions to transport challenges with local residents and tech communities.

4. Implications

4.1 Financial

There are no financial implications arising from this report.

4.2 Legal

There are no legal implications arising from this report.

4.3 Risk Management

This work is developmental and therefore a risk assessment has not been conducted at this stage.

4.4 Equality, Diversity and Social Inclusion

The research specifically reviewed how SCR might ensure that the benefits of innovation in mobility would be available to all parts of the city region and all segments of society.

5. Communications

5.1 No communications are planned at this stage.

6. Appendices/Annexes

6.1 Appendix 1 – Executive Summary of Review of Future Mobility Services Across the SCR

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Background papers used in the preparation of this report are available for inspection at: 11 Broad Street West, Sheffield S1 2BQ

Other sources and references: Future Mobility: Urban Strategy (2019) DfT