
Report to: Transport Committee

Date: 16 March 2018

Subject: **Transport Research Innovation Fund - Research activities**

Director: Liz Hunter, Interim Director of Policy and Strategy

Author(s): Steve Heckley

Is this a key decision?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is the decision eligible for call-in by Scrutiny?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Does the report contain confidential or exempt information or appendices?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If relevant, state paragraph number of Schedule 12A, Local Government Act 1972, Part 1:	

1 Purpose of this report

- 1.1 To provide an update on the Transport Research Innovation Fund (TRIF) collaboration and seek comment on the dissemination of TRIF projects.
- 1.2 To seek approval for expenditure on the next phase of the TRIF Transport and Land Value Uplift project.
- 1.3 To inform Transport Committee of the proposed research activities of the Urban Transport Group.

2 Information

- 2.1 The West Yorkshire Combined Authority meeting of 31 July 2015 agreed to the Combined Authority entering into an agreement with Leeds University Institute of Transport Studies (ITS) to fund collaborative research. A decision on the funding contribution was delegated to the then Acting Director of Transport in conjunction with the Director of Resources.
- 2.2 The Transport Research Innovation Fund (TRIF) is significant for bringing together the Combined Authority and ITS in a unique collaboration. The

Combined Authority has the ambition for everyone in the region to benefit from a strong, successful economy and a modern, accessible transport system, and ITS is a leading international centre for transport research.

- 2.3 The Combined Authority and ITS have jointly committing resources to a £200,000 TRIF funding pot. The Combined Authority agreed a financial contribution of £100,000 from Integrated Transport block funding. ITS agreed a £100,000 commitment to match that financial resource with research staff time and secondments. The TRIF was established in February 2016 as a three year programme, and has completed its second year.
- 2.4 The creation of the TRIF provides the opportunity to support the development and translation of applied research towards achieving a modern, accessible transport system in West Yorkshire. The aims of TRIF were agreed as:
- Improve the evaluative evidence base for policies and interventions to strengthen the case for future priorities and investment;
 - Develop a stronger understanding of behavioural factors and decision making;
 - Make effective use of existing and new data sets to improve the effectiveness of the design, development and delivery of transport in the region;
 - Ensure that the region is at the forefront of innovative transport technologies and applications, attracting major national and international funding support;
 - Achieve joint capacity building across the research-practitioner interface to be a world leading venue for research, increasing skills in the city region and developing export opportunities for valuable professional services and thought leadership;
 - Use the fund to achieve a multiplier effect and grow resources for the partners engaged in the fund.
- 2.5 The £200,000 pot was seen as an initial investment to demonstrate the value of the fund. Additional external resources are expected to add to what can be achieved with the pot. The vision is for a long-term partnership that demonstrates its value for money, research interest and impact and therefore becomes a critical part of how the Combined Authority and ITS works.
- 2.6 An officer working group with representatives of the Combined Authority, West Yorkshire District Councils and ITS is overseeing the use of the TRIF, receiving applications for funding support, ranking and prioritising bids and approving spend on projects within the agreed budget. Each individual research project requires a Combined Authority and ITS lead and project brief, project plan and approved budget. From the outset it was anticipated that ideas for research projects would be of different types:
- Evidence reviews to assist future funding bid development;
 - Requests for funding input to leverage PhD studentship funds;

- Analysis and algorithm development of new data sources;
 - Funding for model development to answer new questions;
 - Funding to support the deployment of a research tool to an existing Combined Authority process;
 - Match funding commitments as part of larger funding bids.
- 2.7 The TRIF also anticipates on-going engagement around capacity building to generate:
- Integrated design projects which provide initial suggestions and analysis for real-world problems;
 - Masters dissertation projects which are more closely linked to on-going work streams;
 - PhD studentship topics which can use Combined Authority data and potentially incorporate secondment;
 - Developing graduates with a better knowledge of the Combined Authority and career paths available.
- 2.8 As the TRIF research portfolio grows and projects deliver outputs, it is intended to disseminate information on activities through a TRIF webpage (hosted either by the Combined Authority or ITS), individual research project reports, TRIF Annual Reports and press releases.

TRIF research projects to-date

- 2.9 Three areas of research activity have been funded by the TRIF to-date:
1. **Transport and Land Value Uplift** (Phase 1) - Research to investigate the potential for methodological improvements to the quantification of land value uplift in transport appraisal. The first phase of this project was completed by December 2017. The Phase 1 outputs have generated interest with Transport for the North, the Department for Transport, National Infrastructure Commission, other Combined Authorities and property companies. A second phase proposal has been developed to expand the scope of the research and progress work streams identified in Phase 1 - this is identified below (from para. 2.13);
 2. **Youth Mobility and Access to Economic Opportunity** - Research to examine the extent to which young people's poor employment outcomes in the UK and mainland Europe are partially caused by poor job accessibility and adverse conditions associated with deprived neighbourhoods. The research involves a comparative study of West Yorkshire and the Rotterdam-Randstad region of the Netherlands. This PhD research project commenced in 2017 and is on-going. The research is expected to influence the Combined Authority's approach to bus services review and the development of Mobility as a Service proposal (which is reported as a separate item 8 to this meeting);

3. **Understanding Wellbeing in Transport Policy** - Research to understand the relationships between transport interventions and changes in well-being (as understood by stakeholders) to provide input to assist the development and delivery of projects aimed at delivering inclusive growth. The research commenced in February 2017 with a Final Report published in December 2017 which has already influenced the development of the West Yorkshire Transport Strategy 2040 and the proposed performance management framework of indicators and targets for the strategy (which is reported in the separate item 5 to this meeting)
- 2.10 A draft fact sheet has been produced for each research project. The fact sheets are attached to this report as Appendix 1, 2 and 3. The fact sheets provide an explanation of the background to the project, research aims and questions, methodology, outputs and key findings. It is propose to develop these draft fact sheets for publication to help disseminate the findings of the research and to promote the fund. Transport Committee is asked to comment on the usefulness of the fact sheets and the desirability of developing a web resource to make available full details of the TRIF research projects.
- 2.11 The TRIF has committed exactly 50% of its £200,000 pot to the first three projects. The outputs from these projects suggests the collaboration is demonstrating its value.
- 2.12 A review workshop was held with the TRIF partners in November 2017. It looked at the first three projects and generated ideas for a forward programme of research. The recommendation is that the TRIF be targeted to addressing questions raised by the policies of the West Yorkshire Transport Strategy 2040 that require further development and also current national economic priorities such as the focus on productivity. The topics recommended to be considered further are:
- **Mobility as a Service** - to research mechanisms to determine the most appropriate technologies for a particular locality/socio-geographic context and how MaaS could reduce cost of travel and improve access to jobs;
 - **Transport emissions and health outcomes** - including developing methods for the appraisal of deliverability, and understanding the extent to which the health benefits of active commuting positively impact on productivity and how this can be appraised for inclusion in business case development for active travel projects;
 - **Productivity** - including considering the role of transport apps in improving access to jobs/services in areas of high unemployment, research to support development of a freight strategy and interventions including determining investment priorities, proposals to develop a toolkit to appraise the impact of public realm schemes and/or active travel measures on land values to inform scheme business case development, and research into appropriate policy proposals to mitigate adverse social impacts of increases in land value, supporting inclusive growth policy;
 - **Evaluation of the long term wider benefits of major investment programmes in a regional context** (- linked to HS2) with a review of local

determinants/factors (e.g. underemployment, agglomeration, labour market effects) towards developing a toolkit to aid consideration of ‘wider benefits’ in business case development;

Transport and Land Value Uplift (Phase 2) proposal

- 2.13 The design of the phase 2 project has flowed directly from the findings of the initial TRIF research (identified in para. 2.9 above and Appendix 1) which established that:
- Current academic and applied approaches to land value uplift mean that it is now possible to build models which accurately describe the property market benefits which flow from investment in transport infrastructure;
 - The development of a Northern Land Value Model has significant potential to shape and influence the government’s approach to how wider economic benefits are quantified in transport case appraisal, with the development of the model used to support the outline business case for Northern Powerhouse Rail (NPR).
- 2.14 The Phase 2 project would be used to set out clearly how quantified property market benefits could be used in the economic case elements of transport scheme appraisal, leading to a step change in DfT’s Webtag approach in this area.
- 2.15 The design of the TRIF was always intended to leverage the benefits of the initial investment made by the Combined Authority and ITS. Projects that were funded had to be scalable and have the potential to drive step changes in transport policy areas or technology. The phase 1 Transport and Land Value Uplift project invested £24,000 in research. The Phase 2 proposal demonstrates the leverage which the TRIF can have beyond the initial investment. Phase 2 has led to substantial additional funding totalling £216,000, with contributions from Transport for the North (£112,000), Engineering and Physical Sciences Research Council (£27,000) and University of Leeds ITS (£77,000).
- 2.16 As the phase 2 work scales up to its national footprint in terms of impact and influence, additional investment will be required from the Combined Authority. This will ensure that the Combined Authority can maximise the benefits of the project for West Yorkshire and ensure that the development of the model (and its testing and application in the Northern Powerhouse Rail Outline Business Case) is based on local need and priority and supports our strategic priorities (such as enhancing the case for the benefits of an NPR stop in Bradford).
- 2.17 The scale of the Combined Authority’s further potential investment in the Transport and Land Value Uplift project reflects the wider strategic and commercial benefits which could accrue to the organisation and West Yorkshire. As part of its 2018/2019 budget provision a Combined Authority investment of up to £50,000 has been defined within the overall revenue budget for the Strategy and Policy Directorate, this would be subject to

approval by the Transport Committee. This funding allocation would be separate to the TRIF pot identified in paragraph 2.3.

- 2.18 The agreement for the Phase 2 work potentially allows for future commercial receipts from the sale of the model to be shared across the funding organisations.

Urban Transport Group research projects

- 2.19 The Urban Transport Group (UTG) is the UK network of urban transport authorities consisting of Merseytravel, Nexus, South Yorkshire PTE, Transport for Greater Manchester, Transport for London, Transport for the West Midlands, and the West Yorkshire Combined Authority. UTG also has associate members (- Bristol and West of England, Tees Valley Combined Authority, Nottingham City Council and Strathclyde Partnership for Transport). The West Yorkshire Combined Authority contributes funding to UTG.
- 2.20 UTG represents and supports the work of its members through:
- **Making the case for urban transport** - such as the funding and powers its members need to plan and deliver transport networks to support inclusive and sustainable growth;
 - **Providing thought leadership for the urban transport sector** - by looking ahead at the future challenges its members face and making connections between transport and other sectors to identify synergies and savings.
 - **Providing professional networks** - to accelerate the take up of best practice through sharing experience and co-commissioning.
- 2.21 Key UTG's activities include the production of reports exploring transport issues and options informed by research. The UTG Business Plan for 2018/19, which can be accessed from the UTG website at: <http://www.urbantransportgroup.org/resources/types/documents/201819-business-plan>, describes UTG's work programme for the coming year identifying proposed and possible research activities e.g. on the theme of buses UTG identify a research project on the causes and implications of bus decline and potential responses.
- 2.22 It is intended to align the TRIF research programme with UTG research proposals, to avoid duplication, but also to share outputs and insight and assist the dissemination of research to transport and local authorities to accelerate the take up of new, innovative ideas and improved ways of working.

3 Financial Implications

- 3.1 The financial request in respect of funding phase 2 of the Transport and Land Value Uplift project is set out in paragraph 2.17 above

4 Legal Implications

- 4.1 There are no legal implications directly arising from this report.

5 Staffing Implications

- 5.1 There are no staffing implications directly arising from this report.

6 External Consultees

- 6.1 No external consultations have been undertaken.

7 Recommendations

- 7.1 That Transport Committee notes the progress in developing and delivering the Transport Research Innovation Fund collaboration and provides comment on the draft TRIF fact sheets and their potential publication.
- 7.2 That Transport Committee agrees up to £50,000 funding for the Phase 2 Transport and Land Value Uplift research.
- 7.3 That Transport Committee notes the Urban Transport Group's Business Plan, including its research programme.

8 Background Documents

UTG Business Plan for 2018/19 - accessed from the UTG website at:
<http://www.urbantransportgroup.org/resources/types/documents/201819-business-plan>

9 Appendices

Appendix 1 - TRIF Fact Sheet 1 - Transport and Land Value Uplift (DRAFT)

Appendix 2 - TRIF Fact Sheet 2 - Youth Mobility and Access to Economic Opportunities (DRAFT)

Appendix 3 - TRIF Fact Sheet 3 - Understanding Wellbeing (DRAFT)