

Forward Plan reference number: 'Not applicable'

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| Report title: DfT Rural Transport Innovation Accelerator | |
| Report to: Helen Morris, Head of Integrated Passenger Transport Unit (IPTU) | |
| Report author: Stelios Rodoulis, Rural Mobility Lead | |
| Date: 26/02/2024 | For: Decision |
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| County Divisions affected: All | |

1. Purpose of Report

- 1.1 To seek approval for IPTU to support an entry in the Rural Accelerator Funding Competition, organised by the DfT and managed by the Connected Systems Catapult.
- 1.2 IPTU is not leading the bid and there are no financial implications for ECC; if the bid is successful, the project will require further governance to be put in place (April or early May 2024), including signing a collaboration or partnership agreement with other consortium members (which will be drafted by the other project partners).

2 Background

- 2.1 The Department of Transport (DfT) is supporting Small & Medium Enterprises (SMEs) and local authorities to expedite the integration of innovative practices, enhance transportation services for users, and foster improved connectivity within rural communities. This accelerator programme will expedite the uptake of innovations to improve transport in rural areas through a series of demonstrators that will develop potential solutions to the challenges that have been set out in DfT's rural transport innovation guide.
- 2.2 This programme addresses the DfT's objective to support and increase the use of innovation to address challenges within the rural transport system. In addition, it directly supports the following strategic priorities:
 - Improving transport for the user, delivering, and maintaining a transport system that is safe, reliable, joined-up and inclusive.
 - Reducing environmental impacts, tackling climate change, and improving air quality by providing alternative transport choices for users.
 - Improving access to public transport, reducing car dependency, and promoting active travel.
 - Growing and levelling up the economy by accelerating projects that support the regeneration of left-behind towns and places.
- 2.3 Please note that the DfT Rural Transport Innovation Accelerator is managed by the Connected Systems Catapult; DfT is providing the funding.

- 2.4 The DfT Rural Transport Innovation Accelerator programme will support 6 – 8 projects, which will adopt innovative approaches to enhancing rural mobility, up to £150k of funding per project. The focus of the programme is on enhancing rural transport, offering people more choice and enabling better connections with local areas.
- 2.5 The programme is seeking applications from innovators (SMEs) and local authorities working in partnership to develop technology, products and services that aim to make the UK's transport network safer, more resilient, greener, and more accessible. This initiative serves a dual purpose, contributing to both the adoption of innovative solutions and the overall wellbeing of rural communities.

3 Proposal

- 3.1 The competition guidelines state that bidders must form a consortium or partnership which includes a micro or small to medium sized enterprise and at least one of the following: a local authority rural area, a Sub National Transport Body (STB) or a Tier 1 supplier to a local authority with the ability to run the demonstrator in a rural area.
- 3.2 IPTU was approached by Arrow Taxis with an already developed concept, for ECC to be included in the bid for this funding.
- 3.3 The innovation to be trialled is the merging of flexible transport operations (DRT) with parcel delivery, with the objective to minimise duplicated and wasted mileage, reduce transport emissions and congestion – potentially leading to a reduction in support for rural public transport by Local Authorities.
- 3.4 Historically, DRT vehicles may sit idle between catering for passenger journeys. The concept aims to reduce vehicle/driver downtime by merging DRT passenger operations, non-emergency patient transport and pharmaceutical and local parcels delivery into one single-vehicle schedule.
- 3.5 Note that Arrow Taxis combined parcel delivery (for NHS) and passenger transport during Covid lockdowns, but this was a manual process (no software).
- 3.6 Under this funding proposal, Arrow Taxis want to go a step further than their previous effort, and digitalise this process by deploying the appropriate software to combine parcels and passenger transport. This will allow the local aggregation of transport operations in rural areas in an effort to:
- Introduce additional revenue streams to rural DRT, by combining DRT passenger services with parcels delivery. This will increase revenue for DRT operations, as operating costs can now be shared over a number of different revenue streams.
 - Reduce support costs and subsidy from LAs for provision of public transport services to scattered, expensive to serve rural communities.
 - Reduce costs for supplementary NHS transport services.

- Contribute (financial, operationally) to wider expansion of DRT services to rural areas, offering greater coverage/connectivity and improved frequency of services - which historically are proven to increase passenger numbers.
- 3.7 In combination, the above will lead to general improvements in congestion and air quality through better utilisation and reduction in number of delivery vehicles travelling in rural areas – thus enhancing (financial) sustainability of rural passenger services as well as mitigating against social isolation and car dependence.
- 3.8 How the concept will work (indicative):
- DRT vehicle caters for morning passengers located in a transport desert (commuters going to rail station or workplace, school children, college students, people attending hospital appointments)
 - Passengers are dropped, and vehicle then proceeds to logistics depot and loads parcels
 - DRT software optimises deliveries and passenger transport in real time
 - Vehicle then collects passengers on typical DRT run; if no journey requests, starts dropping parcels in the rural areas
 - Passengers take priority; parcels are only delivered when no passengers are on-board
 - Vehicle pauses delivery of parcels when passenger requests are received; routing algorithm takes these into account
 - When passengers alight, parcels delivery recommences.
- 3.9 The pilot will run for 6 months, and will include stress-testing / resilience testing of the concept around the Christmas peak, when there is increased demand for parcel deliveries.
- 3.10 At the end of the 6-month pilot, an evaluation report will be produced using data generated, with input by all partners. The report will include recommendations for improving the concept and commercialisation potential. The report will include anonymised data with the idea to share/publish the report with other Counties etc.

Partners and responsibilities

- 3.11 Arrow Taxis, as originators of the concept and lead bidder, have put together a partnership (to be formalised at a later stage) involving IPTU, Systra Consultants and software provider Cleric.
- 3.12 Arrow Taxis will procure and manage the software as well as be responsible for operations and marketing. In addition, Arrow Taxis will be responsible to ensure a supply of parcels from the local EVRI depot under a contractual agreement; EVRI will not be a partner to the project. In short, Arrow Taxis will own and day-to-date manage the project themselves.
- 3.13 IPTU will help with selecting the exact area where the concept will be deployed, potentially run surveys with residents (unconfirmed) and assist with project

monitoring/evaluation (but not lead). Potentially, depending on the exact evaluation methodology that Systra will choose (see below), Podaris can be made available to Arrow and Systra to assist with evaluation and report production.

- 3.14 Systra will provide support with the bid application and evaluate the concept at the end of the pilot, including providing advice on a future business model and economic impact analysis.
- 3.15 Cleric is the software provider chosen by Arrow Taxis. [Cleric Software](#) are a computer services company which supplies NHS Ambulance Control software. They will be providing and developing their software for our concept; they already have most of the functionality we require. If any bespoke software development is required, Arrow Taxis will be responsible for drafting specifications and procurement.
- 3.16 RCCE, Maldon District and the Local MP will provide letters of support.
- 3.17 Due to the tight competition deadline, all partners would enter into a collaboration agreement if & when the funding awarded. The collaboration agreement will set out the detailed role and expectation of each partner throughout the programme, including deliverables.
- 3.18 This future collaboration agreement will not be drafted by ECC; it will be drafted by Arrow Taxis and/or Systra Consultants. There would be a separate decision on proceeding at that point.

4 Links to our Strategic Ambitions and Policy

- 4.1 This pilot has the potential to enhance rural public transport and reduce the cost of supporting rural services in Essex; the project helps to achieve a range of ECC's priorities including:
- Helping deliver economic recovery for the Covid pandemic
 - Achieving zero carbon emissions
 - Reducing congestion
 - Improving air quality
 - Encouraging public transport
 - Allowing Essex residents to access a whole range of services from school, training, and work to health, leisure and shopping
 - Promoting social inclusion.
- 4.2 Therefore, committing to this pilot, will also help deliver the following Strategic Priorities:
- Help people in Essex prosper by increasing their skills
 - Help to secure stronger, safer and more neighbourly communities
 - Help to secure sustainable development and protect the environment
 - Limit cost and drive growth in revenue
 - Re-imagine how residents' needs can be met in a digital world.

4.3 This report links to the following aims in the Essex Vision:

- Provide an equal foundation for every child
- Strengthen communities through participation
- Develop our County sustainably
- Connect us to each other and the world.

4.4 This report links to the following strategic priorities in the emerging Organisational Strategy 'Everyone's Essex':

- A strong, inclusive and sustainable economy
- A high-quality environment
- Health wellbeing and independence for all ages
- A good place for children and families to grow.

5 Issues for consideration

Financial implications

- 5.1 As mentioned, Arrow Taxis is leading the bid; they will submit the bid and if successful, the funding will be directly awarded to Arrow. In turn, Arrow Taxis will be responsible for paying Systra and Cleric – or any other supplier involved in the pilot. Systra will invoice Arrow Taxis directly; the cost of consultancy service is estimated at approximately £10,000 – £12,000.
- 5.2 Arrow Taxis will request just under £150,00 funding (the maximum); the majority of this funding will be spent on software and adapting vehicles to be able to carry parcels and passengers.
- 5.3 Arrow Taxis will match-fund and put in the same amount from their company reserves.
- 5.4 **There are no financial implications for ECC**; there is no incoming revenue or funding to be managed or distributed; ECC is not providing any budget for this pilot. This means that if the project receives funding, it will be a low-risk project for IPTU.

Equality and Diversity Considerations

- 5.5 Not applicable at this stage.

6 Options

- 6.1 **Option 1: Authorise IPTU to enter the Rural Accelerator funding competition as part of the Arrow Taxis consortium because:**
- The pilot might prove the concept of combining parcel delivery and flexible transport operations. **This should lead to lower levels of Council-support provided to rural public transport services, through the introduction of new revenue streams for operators.**

This will increase revenues for flexible transport operations (e.g. DRT or Community Transport), as operating costs are now shared over a number of different revenue streams, thereby making them more financially independent and sustainable.

- In addition, by merging parcel deliveries and passenger transport at the operational level, we expect a reduction in the number of vehicles in rural areas, thereby reducing congestion and reduce emissions.
- In short, revenue from parcel deliveries can augment DRT and CT operations, making them more financially viable and potentially encouraging the set up of DRT schemes or expansion of existing ones.

6.2 **Option 2: Do Nothing (not recommended):** IPTU will forego the opportunity to be involved in an innovative project with the potential to decrease ECC spend on supported rural services. The aforementioned benefits outlined above will not be realised.

7 List of Appendices

7.1 None.

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| I approve the above recommendations set out above for the reasons set out in the report. | Date |
| Helen Morris, Head of IPTU | 26 February 2024 |