Report to the Partnership for South Hampshire Joint Committee

Date: 25 October 2021

Report of: Tim Forrester
Solent Transport, Future Transport Zone Project Manager

Subject: Introduction to the Solent Transport Future Transport Zone Programme

SUMMARY

The purpose of the presentation is to introduce Solent Transport's Future Transport Zone programme of work. Given PfSH's own spatial planning work, it is imperative that a joint approach is taken when developing housing and transport strategies.

RECOMMENDATION

It is RECOMMENDED that the Joint Committee NOTE the contents of the verbal presentation that will provided at the meeting and raise any spatial planning considerations that members may wish to discuss.

BACKGROUND

1. Future Transport Zones are a trial programme funded by the Department for Transport (DfT) to help make journeys easier, smarter and greener.

RECOMMENDATION

It is RECOMMENDED that the Joint Committee NOTE the contents of the verbal presentation that will provided at the meeting and raise any spatial planning considerations that members may wish to discuss.

Appendices: Appendix 1 Future Transport Zone Programme Presentation
Background Papers: None
Reference Papers: None
Enquiries: For further information on this report please contact:-

Tim Forrester, Solent Transport, Future Transport Zone Project Manager
tim.forrester@southampton.gov.uk

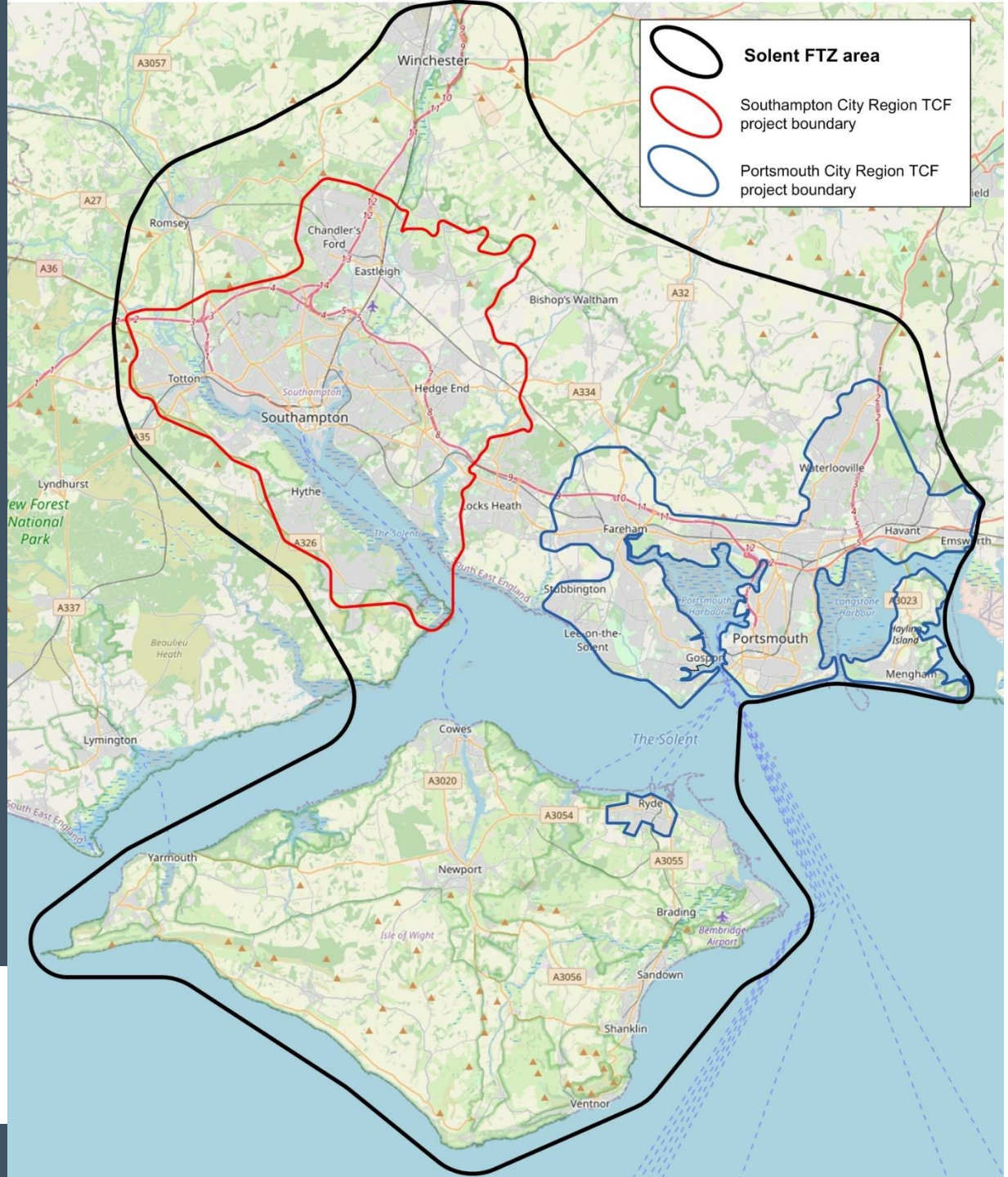
Appendix 1

Solent Transport

Solent Future Transport Zone

Sept 2021

Context for Solent FTZ



Our Geography

Solent = 20% of TFSE population

1.5M people = more than Copenhagen, Oslo, Dublin, Edinburgh, Cardiff, Bristol.

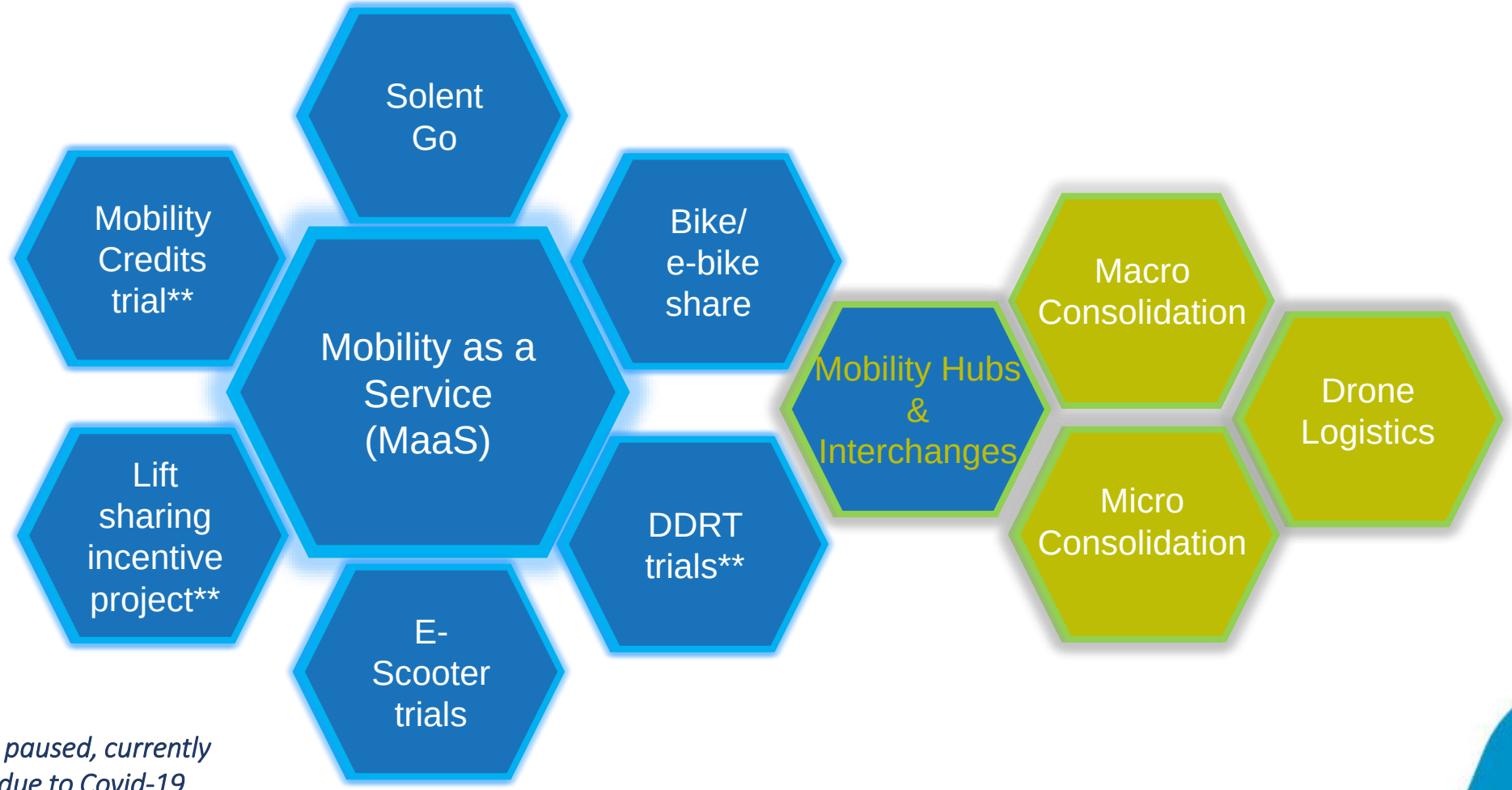
Travel patterns of people and goods do not respect political or organisational boundaries.

Isle of Wight asked to extend their E-scooter Trial and be part of MaaS so FTZ now covers the whole island.

Overview of the Solent FTZ Programme

Theme 1: Personal Mobility

Theme 2: Sustainable Urban Logistics



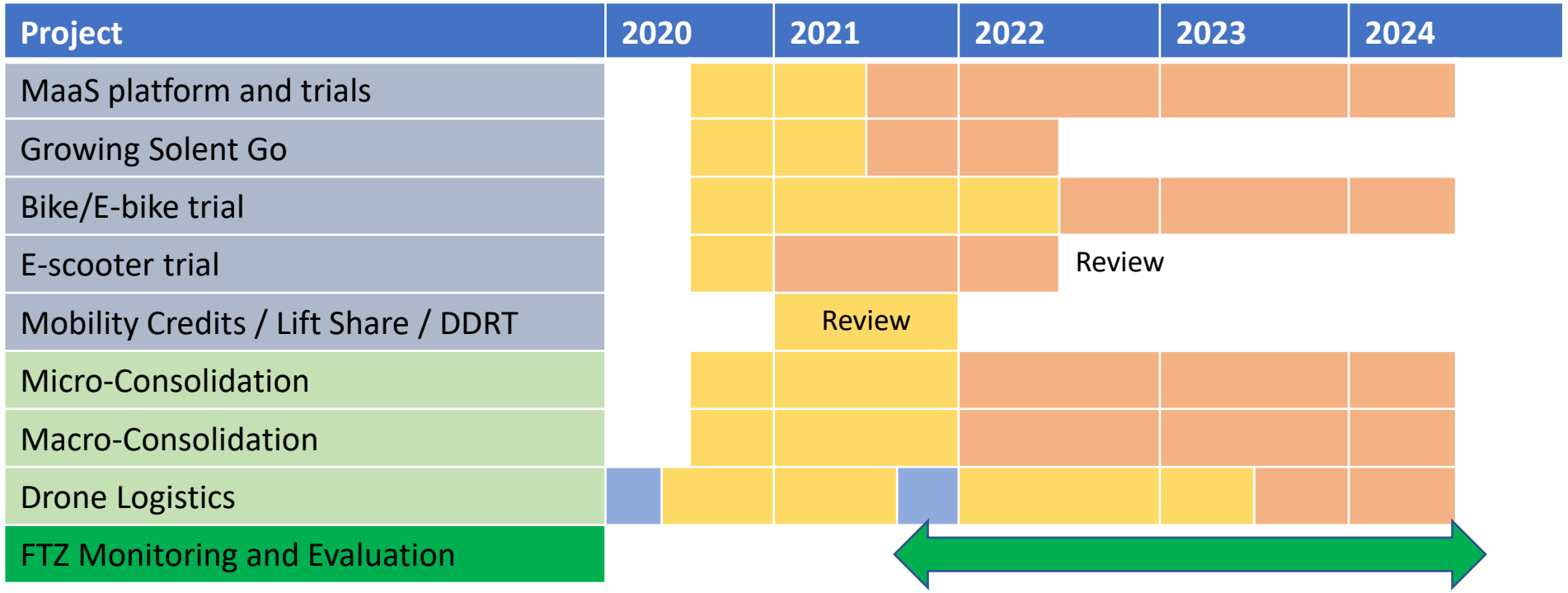
** = *Progress paused, currently under review due to Covid-19*

Marketing & Communications strategy

Overview of the Solent FTZ Programme

Theme 1: Personal Mobility

Theme 2: Sustainable Urban Logistics



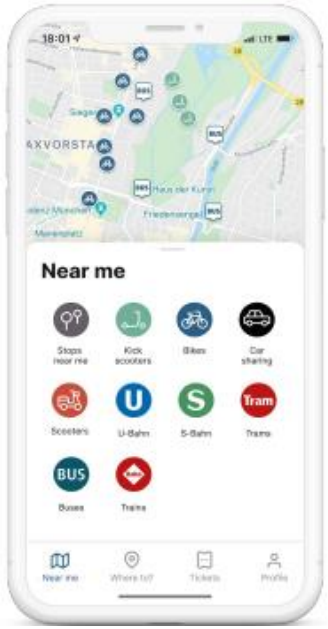
Key: Research, design and procurement | Implementation | Drones Trials

Total budget £28.8m

What is Mobility as a Service?

- Every transport mode and option in one place
- Designed to be easy and attractive to use
- Behind the scenes, complex tech integrations
- A system with four central functions:

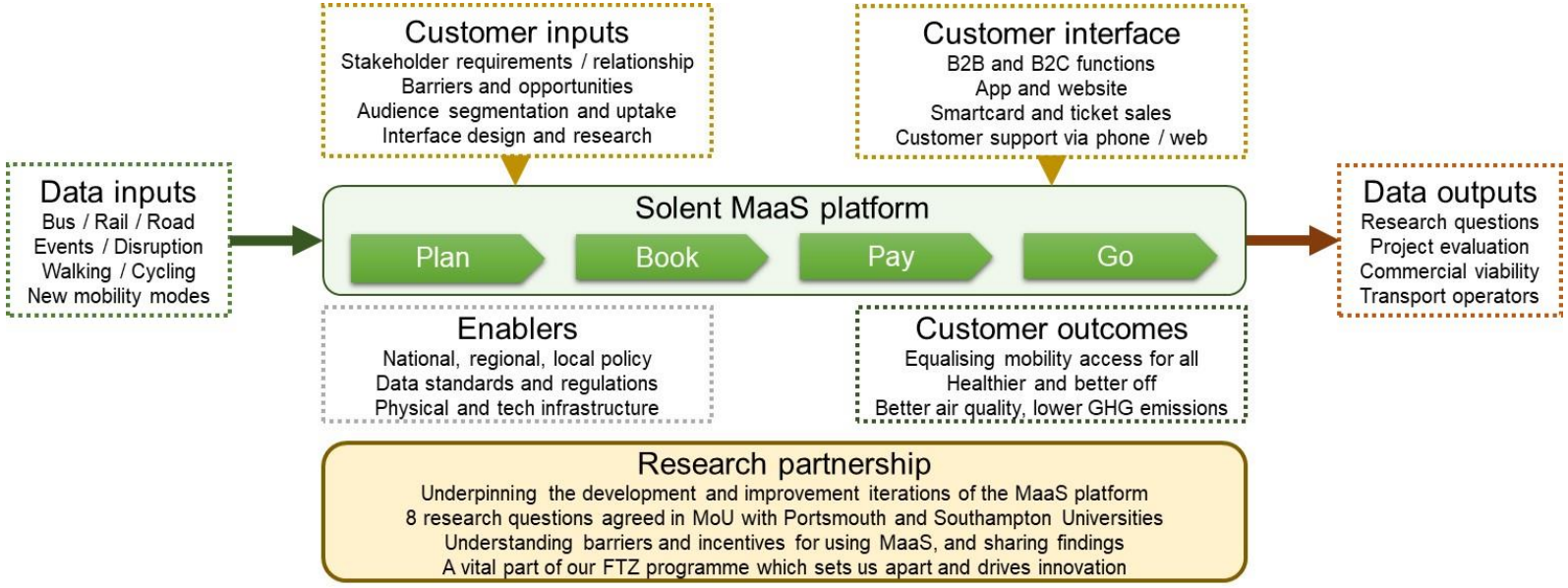
Plan	Journeys on all modes, and multi-modal
Book	Tickets for journeys, and store them in the app
Pay	Using cards or mobility credits
Go	The freedom to travel and discover



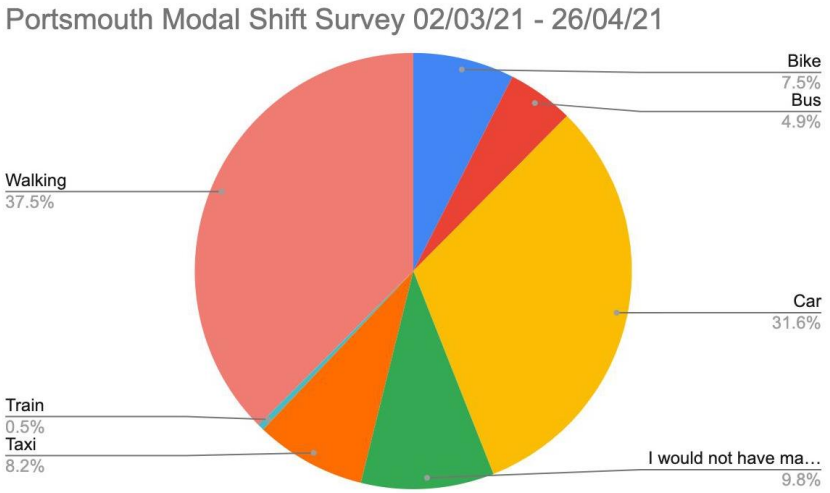
Example MaaS interface

- Provider appointed for initial launch planned winter 2021
- Initial launch to include Winchester, Southampton, Portsmouth, Isle of Wight. Further expansion possible later in project life
- Discussing extension of coverage with several other LTA regions
- Internal legal support and Rail Industry moving at a slower pace than the project.
- MaaS app/system the key enabler for the Mobility Credits trial project within the programme

MaaS platform and interfaces



Solent E-scooter Trials



(430 users responded to Survey)

Trial Area	Number of active E-Scooters (Sep 2021)	Number of E-Scooter journeys (Sep 2021)	Total Distance Travelled (Sep 2021)	Total registered users
Isle of Wight	180	57,000	213,000 KM	11,400
Portsmouth	448	132,000	444,000 KM	29,500
Southampton	904	192,000	544,000 KM	29,900

- Three shared/hire e-scooter trials in Solent
  - Isle of Wight – Launched November 2020
  - Portsmouth – Launched March 2021
  - Southampton – Launched March 2021
- Extensive monitoring & evaluation of trials - will help Solent area contribute to managing and shaping the use of e-scooters in the UK
- Trials currently authorized/ programmed to run until March 2022, but DfT have put in place facility to extend trials to transition to become “pilots” beyond March 2022 but local decisions needed on whether this will occur.

Key Issues

- Negative publicity mainly from accidents and misuse of private e-scooters
- Over reporting incidents, instead of KSI’s as with other modes.

Other Theme 1 (personal mobility) trial projects

- **Bike/ eBike share scheme for Southampton and Portsmouth**: implementation of bike share in these high potential areas, as a further element of a modern transport “ecosystem”, including taking on board learning from previous withdrawn Southampton YoBike scheme.

- **Smart (app) bike locks trial**: trial of app-controlled bike locking system that could be retrofitted to existing cycle parking, improving security

- **Dynamic Demand Responsive Transit (DDRT) trial:** trial of app-booked flexibly routed “street corner to street corner” minibus services. Project has been reviewed for viability post-Covid and now looking to open up / modernise existing Community Transport and Dial-a-Ride services to app booking (via MaaS) and flexible routing.

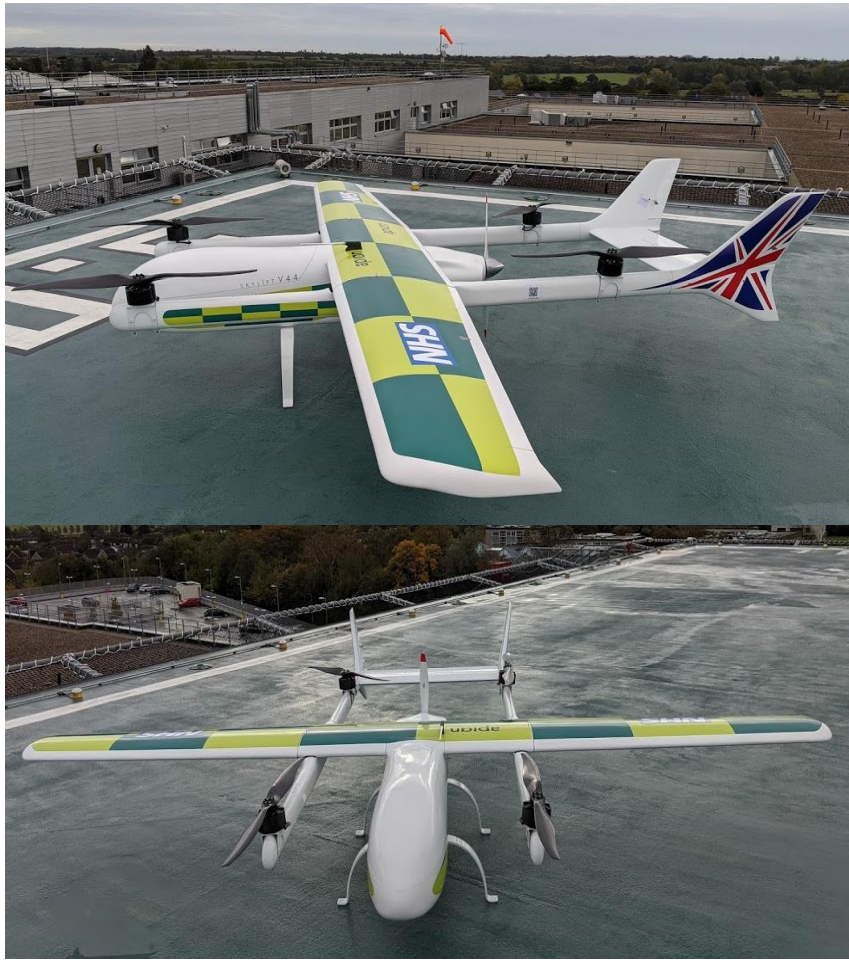
- **Mobility credits trial**: trial of provision of free credit via MaaS app to a small trial group of users , coupled with monitoring & research/ evaluation of effects on travel choices and wider outcomes such as education, health, social and economic activity. Trial proposed to be run in Havant Borough.

- **Lift sharing incentive project:** trial of methods of incentivising lift-sharing using MaaS app; appropriate to our area given high car dependency

Drone trials (August/September 2021)

Outline

- Project led by the University of Southampton - moving medical samples and supplies between hospitals in Southampton, Portsmouth and Isle of Wight by uncrewed drones - potential to slash transit times and enhance healthcare services for Solent residents in isolated areas
- Trials of a vertical take-off and landing (VTOL) drone between Portsmouth Queen Alexandra Hospital and St Mary's Hospital on the Isle of Wight, scheduled to run from late Aug\ early Sep for 3 months
- Will enable confirmation that project work packages address all necessary logistics issues for both VTOL and fixed wing drones



Details

- Partnering with Apian, a medical drone startup, who have CAA permission to fly using a TDA (Temporary Danger Area)
- A Mugin V44 drone will be used for the trials (see picture)
- Minimum 30 flights during the trial period
- Payload: TBC, but possibly using redundant chemotherapy treatment to assist in quantifying the vibration impacts (a project task)
- Contract currently being finalised between University of Southampton and Apian

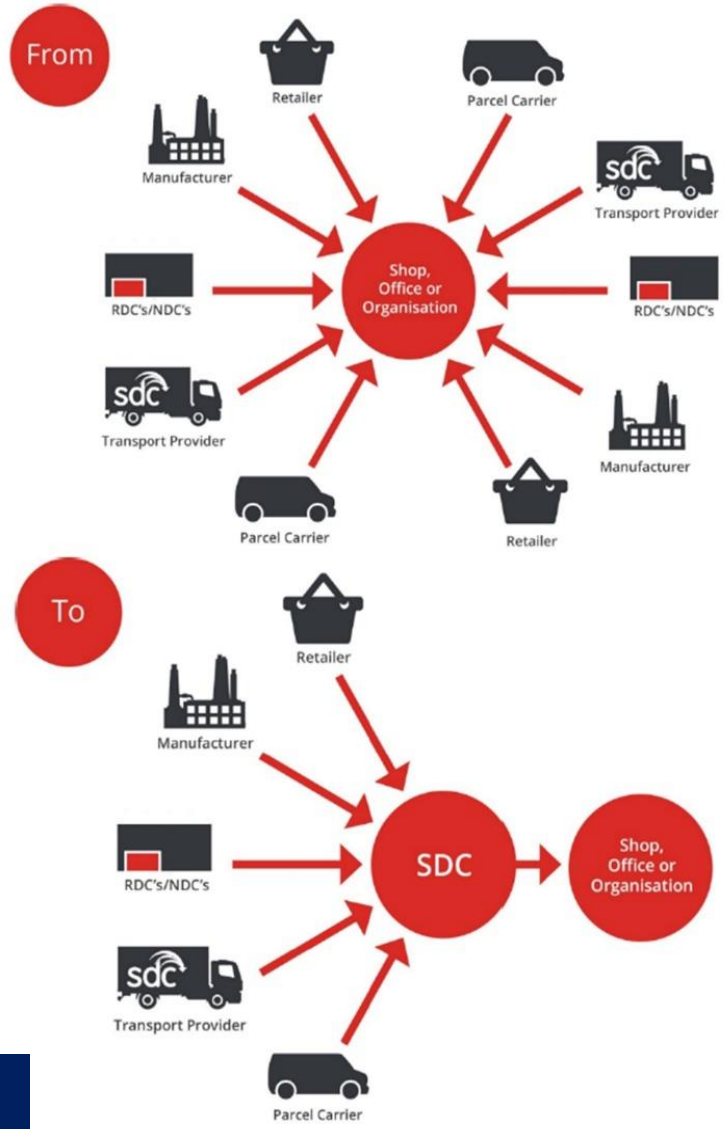
Additional activity

- Development of an augmented reality simulator (headset) to recreate the sensation of the drone landing and taking off in the observer's field of view (borrowed tech)

Other Theme 2 (sustainable urban logistics) trials

Innovative approaches trialling consolidated deliveries and zero-emission last mile modes to reduce the growing impact of logistics and deliveries in urban areas:

- **Macro-consolidation:**
  - Expand use of existing Southampton Sustainable Distribution Centre through extensive programme of Delivery and Servicing Plans (“travel plans for freight”) and programme of support and incentives to encourage SDC adoption by appropriate customers such as hospitals, large education and public sector institutions, etc.
- **Micro-consolidation for last-mile logistics:**
  - Trial of Micro-Logistics Hubs in city centres for consolidation of “last mile” deliveries onto e-cargo bikes/ portering/etc rather than diesel vans
  - Use of Intelligent kerbside management systems to help manage drop-off points



Key Delivery Partners:
Meachers Global Logistics, Parcelly, AppyParking, University of Southampton, Portsmouth University

Academic research, monitoring and evaluation

MaaS trial project: Monitoring, evaluation and research led by Dr James Pritchard (UoS) with input from UoP. 5 research workstreams including user behaviour analysis; and experimentation of user response to different journey plan algorithms, output preferences etc from the app. Our MaaS provider consortium includes Behavioural Insights Team (BIT) (formerly the Government's "nudge" unit) adding further value to MaaS research activities

Drone Medical Logistics Trial: Most project delivery, plus research and evaluation led by Prof. Tom Cherrett, Prof. Jim Scanlan & others at University of Southampton. University of Portsmouth input on simulation, optimisation, algorithms etc led by Prof Djamila Ouelhadj (University of Portsmouth). Most of the 11 work packages for this project involve elements of research, evaluation including:

- Simulating and developing a prototype UTM (and Class L airspace designations) for the Solent Region
- Developing UAV hazardous cargo carriage arrangements to meet regulatory requirements (with Kings College London)
- Developing a simulation environment for optimising and evaluating multi-modal supply chains involving land-to-UAV and UAV-to land logistics interchanges, including potential integration into NHS procurement

Micro- and Macro-consolidation trials: Significant part of project delivery in partnership with Universities of Southampton and Portsmouth, as well as research and simulation/ upscaling to estimate potential effect of larger scale adoption of consolidated deliveries.

FTZ programme-wide monitoring & evaluation: Led by University of Southampton (Dr Alan Wong)

Project Integration – Mobility Hubs

- Mobility Hub schemes being delivered by some other programmes including Transforming Cities Fund (TCF) and Highways England Travel Demand Management (TDM)
- FTZ project trials (such as e-scooter, e-bikes and micro consolidation) could be part of the service offer of any of the Mobility Hubs, subject to implementation schedule and viability
- Developed Mobility Hub design guidance to support the range of local schemes under development and ensure these integrate well with FTZ “service” deliverables
- Also written with UK wide audience in mind to support HE

Spatial Planning considerations for discussion

- Micro- and Macro-consolidation trials: need suitable sites / land at wither end of the delivery to be practicable /viable at scale. Potential challenges with development of small urban logistics hubs in areas zoned for other uses eg retail, leisure, mixed use residential etc?

- Future development / expansion of personal mobility schemes such as shared e-Bikes, DDRT etc may need to be considered in or be relevant mitigations to support via S106 or S278 agreements for major schemes?

- MaaS could be used to help offer special discounts, incentives, tickets etc as part of travel plans?

- Development of drone routes – consideration needed in relation to impacts on built and natural environment?

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Thank You

Questions?