

FHDC EX110

Appendix 12 from FHDC EX083/EX084

Otterpool Park Future Mobility: Monitoring & Evaluation Framework

Folkstone & Hythe District Council

70070672

September 2020

Future Mobility



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Draft



1 Introduction

Report Purpose

Acknowledging that different people in different places require different combinations of solutions is imperative to customer centric planning. To truly put users at the centre of planning, active monitoring and evaluation is required to ensure agile mobility service implementation, resilience and continuous improvement.

This document sets out the monitoring and evaluation approach for the Otterpool development with a focus on the first phase of development (up to 2,500 homes).

This Monitoring and Evaluation (M&E) Framework forms part of the Vision and Validate Strategy for Otterpool Park, and should be read in conjunction with the User-Centric Report.

Supporting the ambitious vision for Otterpool Park, this framework supplements a traditional travel plan. These types of plans are typically aligned to a *'predict and provide'* approach to providing for and reviewing the success of the proposed interventions relating to the scheme.

This framework will adopt a *'monitor and manage'* approach that seeks to validate highly sustainable mode share targets, design services around individuals' propensity to change and associated opportunities, and analyse user feedback within the first phase of the development.

Such an approach can sit alongside a traditional transport assessment and travel plan, but also builds in the flexibility to refine capacity and services from day one.

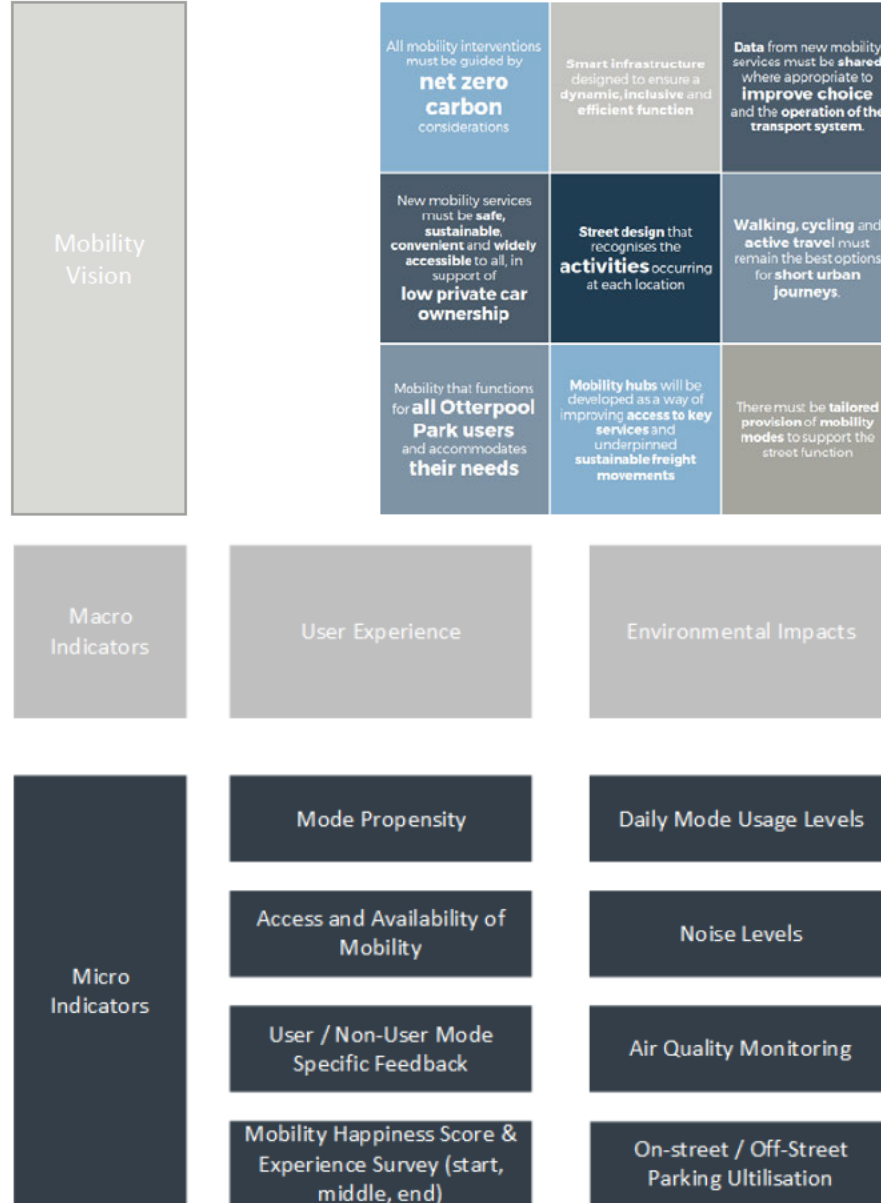
Adopting this method of monitoring and evaluating lends itself to early and continuous consideration of the levels of mobility service provision, including where services are under-utilised and where there is opportunity to scale further, and to identify opportunities and barriers to use.

Ultimately, this framework seeks to enable a continuously improving mobility offer at Otterpool Park that meets users needs.





2 Vision and Indicators



This framework will be led by the mobility vision for Otterpool Park. This helps to define the indicators and data that will be required to demonstrate that the mobility offer is enabling the vision and to the success of the development.

Enabling people is the key theme of the vision – so the framework will need to take the pulse of the users (residents and visitors) to gauge their experiences (good and bad) to track the level of user satisfaction – as well as opportunities and constraints.

In parallel, the environment in and around the development is an important indicator to monitor and analyse to ensure the ‘place’ is contributing towards achieving the overall vision for the site.

Sitting under these two macro indicators, are a number of micro indicators that will help to identify the method and data requirements for establishing progress towards the overall vision.

Examples of the micro indicators are outlined in the following section with a definition, data requirements and how the indicator could be useful.

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Mode Propensity Indicator

Description

Understanding the audience is the key foundation of planning and adapting mobility for the people of Otterpool Park.

Knowing who is living at the development and their propensity to use different mobility options helps to inform and develop better decisions.

This indicator will build upon the work already undertaken to forecast the make-up of the resident population prior to first occupancy. The 'forecasted' personas will be updated with 'actual' personas following occupancy of each unit.



Data Requirements

- Access to Experian Mosaic dataset
- Resident information of occupants to identify persona / population segments (and could potentially include likely employment location)
- Modal propensity dataset to establish potential behaviour

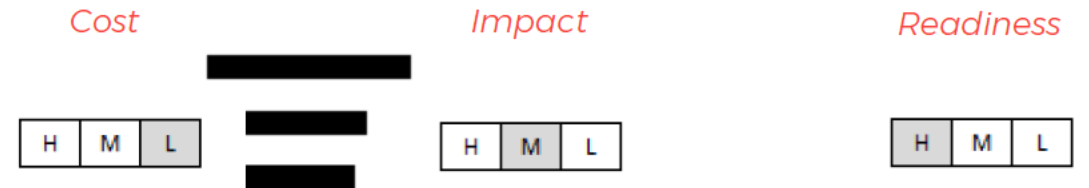
Output Indicator & Measure

This indicator will provide the make up of the residents at Otterpool Park and the likelihood they will adopt certain behaviours or try different modes.

Comparison to the baseline analysis (forecasted) at regular intervals will allow validation and revision of the mobility measures, modes and infrastructure that were originally selected during the planning stage.

Potential Technology

- Analysis and data can be analysed using existing tools available during the planning process.



Access and Availability Indicator

Description

Providing a variety of mobility options to residents of Otterpool Park enables choice and the ability to adopt more desirable behaviours – using the best mode for an individual journey. However, if residents are not able to access certain modes, or they are not available to them when they want, users may want to return to traditional behaviours / old habits.

This indicator seeks to track the availability of each mode by levels of capacity and user feedback – establish if capacity or services needs to be tweaked – or establishing seasonal peaks to plan for different seasons.



Data Requirements

- Operational data of shared micro-mobility, vehicle and public transport options on-site.
- User feedback mechanism – if a user tries to book a journey and has to choose an alternative or not undertake their trip – users will be asked to confirm their original mode.

Output Indicator & Measure

This indicator will identify where residents are unable to utilise the mode they would like to travel on – whether this is due to operational timings, capacity issues, or seasonal demand. It will also assist mobility operators to tweak supply of their services across the year to better serve the community and optimise their resources/on-street clutter. For example, scaling back DRT services across the summer as residents are likely to walk or use micro mobility during the better weather.

Potential Technology

- This could be integrated into a MaaS application or site-wide app offer. Users to provide instant and simple feedback.
- A back-end data sharing and processing platform would be required to process the data supplied by mobility operators – as well as the feedback/requests from residents
- Informal postal surveys or physical voting podiums can capture the widest reach of users



User and Non-User Indicator

Description

To create an environment of continuous improvement, analysis of feedback from residents and visitors on specific mobility options will help to identify issues and opportunities for revising and improving the offer at Otterpool Park. It is key that this feedback is collected from users and non-users of each mode to tease out what could be improved and what is preventing individuals from adopting certain modes.

Respondents will be invited to provide short and simple feedback via a site-wide app – either once they have used a particular mode – or if selected as a non-user.

Data Requirements

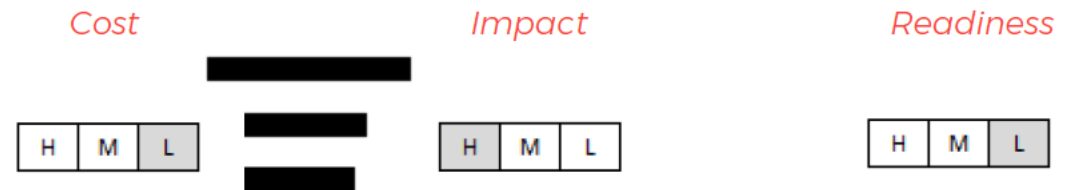
- The updated resident propensity list will be used to select non-user surveys.
- Operational data – or ability to issues surveys following mobility booking – to mode users.

Output Indicator & Measure

This indicator will provide rich feedback to demonstrate if the mobility offer is performing as expected – or if further refinement is required. The data collected will provide a roadmap on tweaks and changes that could be made to encourage desirable travel behaviour/maximise choice and availability amongst residents.

Potential Technology

- This could be integrated into a MaaS application or site-wide app offer. Users to provide instant and simple feedback.
- A back-end data sharing and processing platform would be required to process the data supplied by mobility operators – as well as the feedback/requests from residents



Resident Happiness and Experience Indicator

Description

The resident experience is at the heart of achieving the vision for Otterpool Park. Taking the pulse of the residents at various points through out their first 12 months will help tease out more in-depth feedback on their experience.

Residents to be engaged at 3, 6, and 12 months to plot their experience and measure happiness with mobility at different stages of their occupancy.

The questionnaire can build on the existing survey conducted pre-occupation to ensure comparison – but it's focus is to assess actual experience.



Data Requirements

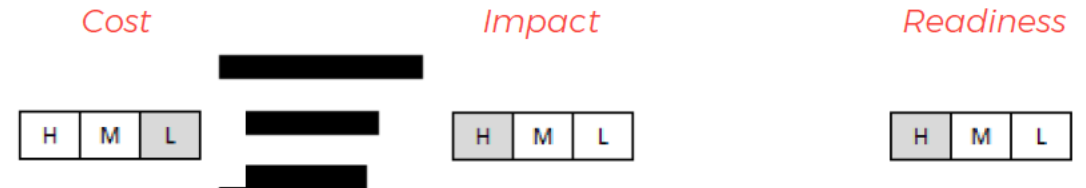
- The updated resident propensity list will be used to issue happiness and experience surveys.

Output Indicator & Measure

This indicator will provide a direct marker of success in achieving the vision of creating an environment for happy and healthy. Respondents will be asked to rate experiences and their level of happiness with various categories of the mobility offer. Respondents will also be able to provide detailed feedback on their experiences – which will create a picture of potential issues, opportunities and potential revisions to the mobility offer.

Potential Technology

- This indicator can be incorporated into a site-wide app, or pushed out via resident contact details. Analysis can be undertaken using existing desktop platforms.



Daily Mode Usage Levels

Description

A traditional travel plan monitors mode usage by taking a snapshot roughly once a year. Whilst this provides an indicator of how people are travelling, this could be impacted greatly by conditions on the day of record (weather, events, roadworks etc). Counts are often undertaken semi-manually and require human presence on-site. With the development of AI technology, a real-time count of journeys could be undertaken that will provide an insight into how people travel to/from and around the site at different times of the year.

The technology could also be used to monitor air quality (via ANPR), noise levels, as well as congestion in and around the site. Off-street parking levels can be tracked to identify turnover/usage, identify abuse or breach of service level.



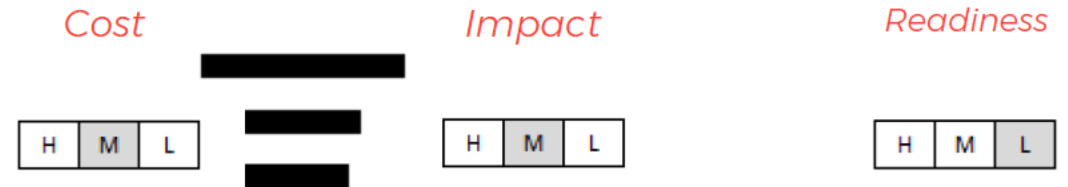
Output Indicator & Measure

This indicator will provide a real-time measure of how mobility is being used at the site and can form the basis of strategy decisions and planning. The continuous nature of the monitoring helps to develop a profile across the year to illustrate changing behaviours and demand.

This can also help to identify congestion, air quality, and noise hotspots, as well as monitor parking abuse in certain areas.

Potential Technology

- Camera based AI solution to monitor and process results positioned at various locations across the development to provide a holistic picture.

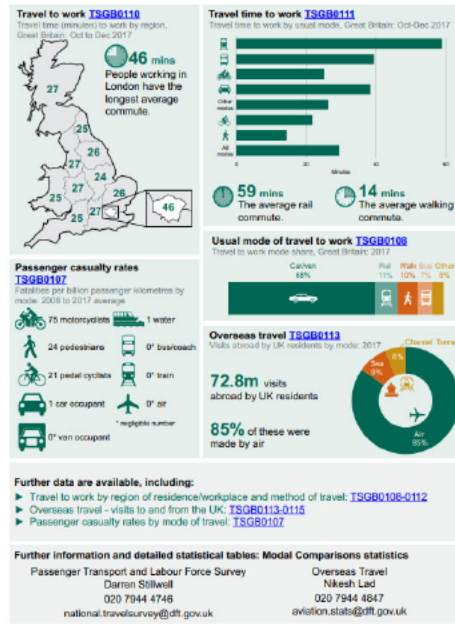




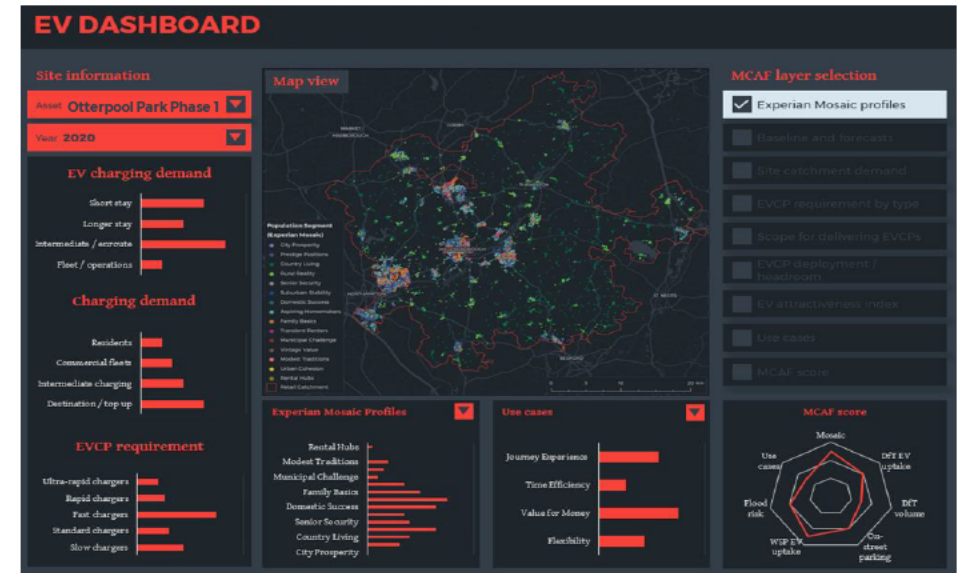
To communicate the progress towards achieving the vision, the data collected for each indicator would then be presented via a bespoke dashboard.

The raw data would be integrated to provide an community-level, resident-level, and local authority version to communicate the required information. This will provide a one-stop-shop for all data and feedback to inform decisions, and will provide confidence to residents that mobility is performing and improving.

Some indications of how the data could be presented in a dashboard are provided:



Source: DfT Transport Statistics Great Britain 2018



Source: WSP Future Mobility



Source: Vivacity Traffic Sensor Dashboard

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**3 - Build-
Measure-Learn**

As highlighted previously, the M&E process is an iterative one, allowing for changes to levels of provision, service quality and other changes to be made. This process includes the following milestones:

1. Preparation of Scheme design and development of the M&E Framework
2. Monitoring post-occupation
3. Real-time service optimisation

Figure 1 showcases the project stage this relates to. Drawing from the results of the Survey, interventions will be informed through a user-centric approach to planning.

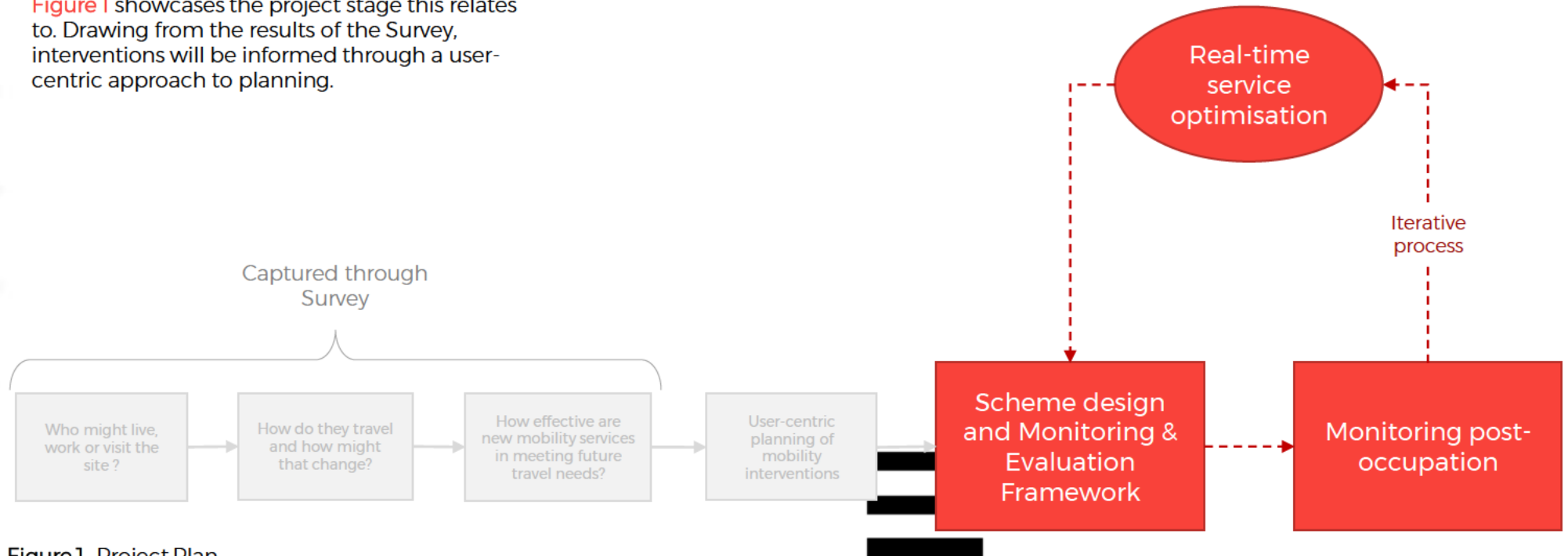


Figure 1 Project Plan

Mode share potential

The vision for Otterpool Park entails a net zero carbon lifestyle underpinned by low car ownership. At present, survey results show an overall sustainable travel mode share of 63% amongst respondents across London and Kent, a stark contrast to the Journey to Work (JTW) 2011 Census data for Folkstone and Hythe. With that said, Kent County Council has set out ambitions to ensure that by 2021, active travel is to increase by 40% for commuting trips and a 10% increase is seen in the number of people cycling along key routes.

Comparing Chart 1 and 2, the survey is representative of the more progressive sustainable travel behaviour of today that is not captured in the 2011 Census (such as the demographic, social, environmental, economic and political shifts that have changed the way we travel), and is a representation of the

potential Otterpool Park target market (recognising future occupiers will be both from London and the local area).

As such, this showcases the opportunity for the development site, particularly in Phase 1 where the car-free concept would be tested. Additionally, Chart 2 does not include the lasting effects of Covid-19, yet the potential for further sustainable mode share opportunity is set out in the **User Centric Travel** report.

Whilst detailed mode shares within Transport for the South East or Kent County Council policy are not yet available for the 20 year timeline that would align with the development buildout, it is expected that these will emerge following the example set by London with the Mayor's Transport Strategy*.

A progressive mode share target (for both internal and external trips) will be set in the update to this document pre-occupation, in line with the timeline shown in page 20.

*The Mayor's Transport Strategy outlines intent to reduce Londoners' dependency on cars in favour of active, efficient and sustainable modes of travel, with the central aim for 80% of all trips in London to be made on foot, by cycle or using public transport by 2041. Whilst ambitious, this will be achievable through making alternative transport options accessible and appealing.

Subject to the public transport offer and the availability of alternative modes, access to service, origin and destination characteristic of residents and visitors, and the potential lasting effects of the Covid-19 Pandemic on how society live, work and travel, Otterpool Park may strive to set seemingly ambitious targets.

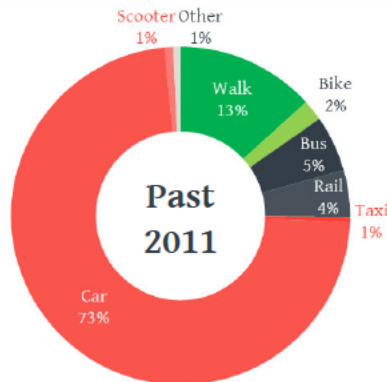


Chart 1 - 2011 Census Folkstone & Hythe JTW mode shares

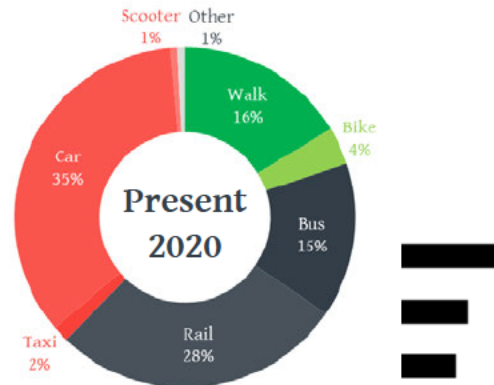


Chart 2 - 2020 Otterpool Park survey (all trips) mode shares (pre-Covid-19)

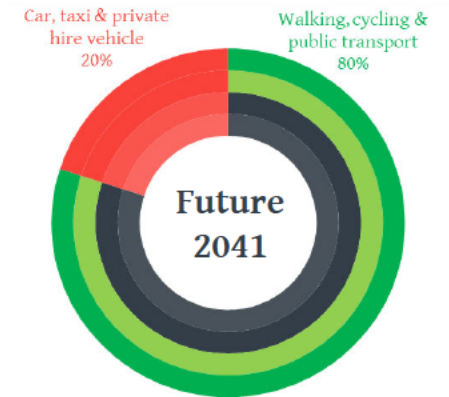


Chart 3 - 2041 London mode share target

Achieving the ambitious mode share target

Drawing from the survey data Looking more deeply at different trip purposes, vehicular trips (car and taxi) are seen to be most common for those relating to shopping and personal business (50%), leisure trips (42%) and other (39%). In contrast, active travel and public transport are most common for trips relating to education (70%) and commuting (66%).

Below we provide indicative interventions with the potential to encourage sustainable travel. Further details are provided in the **User Centric Travel** report.



Supply varied sustainable mobility options:
i.e. provide a range of sustainable travel for hire, including e-bikes, e-scooters and car clubs, which can accommodate a range of journey distances, reducing the need for private vehicles.

Measured through the SNRG Lifestyle app (or equivalent) enabling record of user behaviour regarding to mobility choices/ bookings



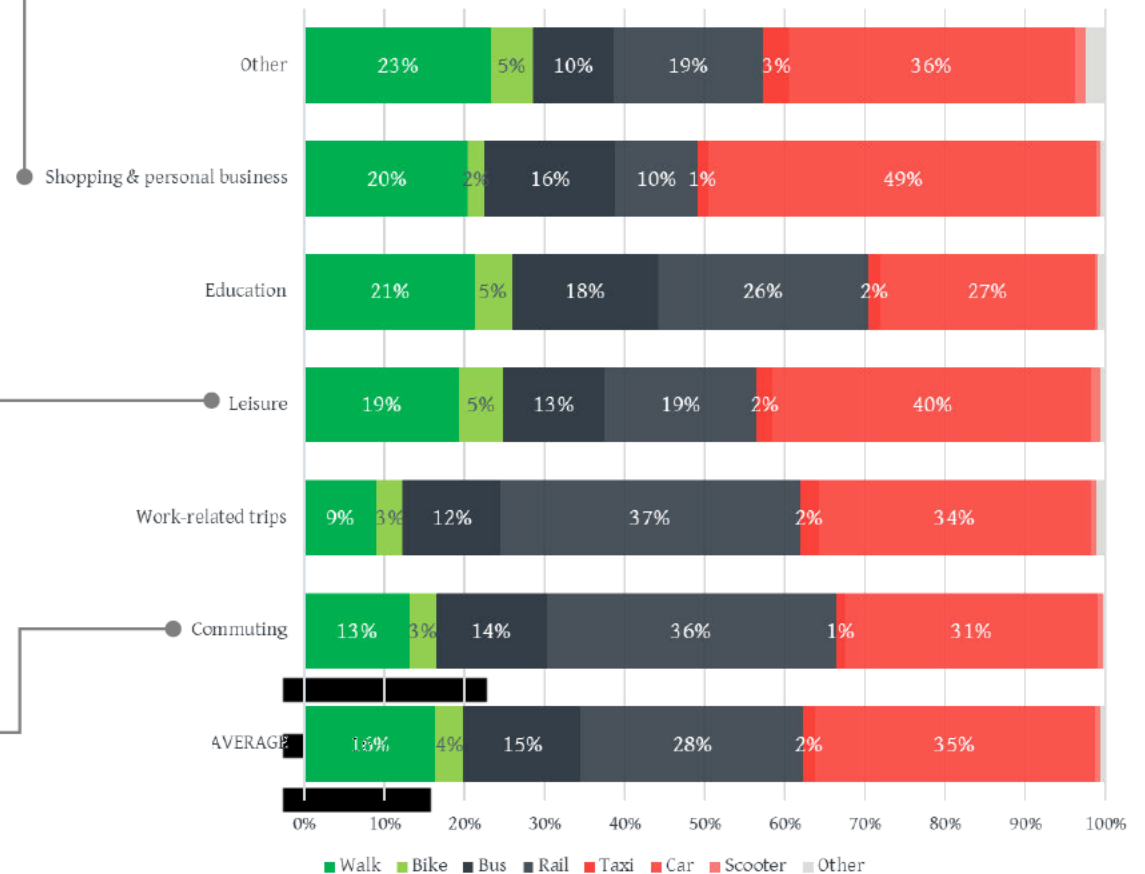
Localise travel, reducing the need for long distance, motorised trips:

i.e. provide co-working space in a central location the development to provide a plausible alternative to traveling to work 5 days a week for those with challenging work-from-home spaces.
Measured through monitoring of utilisation of co-working and booking apps

Incentivising digital alternative to physical trips:
i.e. make online shopping convenient through implementing parcel lockers and Click & Collect points, whilst also re-modelling deliveries to sustainable options like e-cargo bikes for last mile trips.
Measured through parcel locker usership and camera/ sensor record of e-cargo bike presence



Mode share using survey data (by trip purpose)



With digital advancements, including the emergence of 5G and the IoT (Internet of Things), design, planning and monitoring the way society moves has become ever more digitised.

The following companies have developed new technology in mobility use cases to support data collection for an improved level and quality of service.



AppyWay are a smart kerbside management solution providing real-time intel on kerbside utilisation. By digitising and connecting the kerb to a mobility platform, Appyway has the potential to transport spaces into insight-rich assets, and has live operations with this technology in Harrogate, City of London and Cambridge.



TravelAI is building a live database of journeys that gives the transport industry insight and helps corporates match decisions to how we move around. **TravelAI** seek to provide effortless and accurate journey-detection tools that automatically sense and combine crowdsourced community intelligence on travel patterns, showing which routes are suffering from congestion or disruption and letting decision makers and citizens make smarter choices that save time, frustration and money.



Using video sensors and predictive analytics, **Vivacity** has developed a smart monitoring system to accurately detect and analyse traffic movements, including pedestrians, cyclists, public transport users and drivers, all in real time. This provides insight into transport facility usage.

Vivacity is currently operating in London Bridge rail station, gathering information about the real-time distribution of people across the station concourse, giving the operations staff insight into crowd density.



By leveraging existing street furniture infrastructure as data collection points, **Telensa** provides place, power and connectivity wherever people live, work and travel. This makes streetlights an efficient means to collect, protect and apply data to enhance city life.

Telensa is now operating 130,000 streetlights in Essex, 107,000 streetlights in Birmingham, 45,000 in Cambridgeshire.

Mapping out the M&E steps

This M&E Framework is a **live document** and should be treated as a flexible tool for assessing the performance of mobility interventions in the site. Below is a timeline detailing key milestones relevant to the first phase of the planned development at Otterpool Park.

	Indicative timescales				
	Pre-occupation	Post-occupation			
		0-3 months	3-6 months	6-12 months	12 months+
Project Milestones					
User Centric Report and M&E Framework Development This will inform the approach and framework for implementing new mobility services, how they will be monitored and adapted to the scheme	[Bar spanning Pre-occupation to 0-3 months]				
Engagement with key local employers To engage with local workers and employers for a focussed understanding of the segments who may come to live and work in Otterpool Park	[Bar spanning Pre-occupation to 0-3 months]				
Phase 1 Masterplan As part of the scheme design to integrate user-centric mobility interventions.	[Bar spanning Pre-occupation to 0-3 months]				
Stakeholder Workshop Engaging with stakeholders to finalise proposals.	[Bar spanning Pre-occupation to 0-3 months]				
Post Occupancy Resident Survey Consulting with future residents to understand the use and satisfaction with mobility services, allowing for changes in provision to be made.		[Bar spanning 0-3 months to 3-6 months]		[Bar spanning 3-6 months to 6-12 months]	
Traditional Travel Plan At this point, there is a transition to the longer-term travel plan objectives which brings with it the learnings and progressive targets that have been achieved.		[Bar spanning 0-3 months]			[Bar spanning 12 months+]



Next Steps

This report expands upon the traditional approach to travel planning and monitoring, calling for new thinking to be implemented to enable a more ambitious vision for Otterpool Park to be realised. This will require planning support from Folkstone & Hythe District Council and Kent County Council, which will enable the Vision and Validate approach.

Key considerations that will need to be worked through with planning and highway officers include:

- Setting out the traditional approach for Transport Assessment/Travel Plan and which planning conditions and transport contributions would be influenced through the user-centric targets
- Considering the scale at which the above planning conditions and transport contributions will be implemented – i.e. at a county / district level for consistency with other developments, or setting Otterpool Park as the flagship for testing progressive sustainable travel targets and monitoring practices.





Future Mobility

