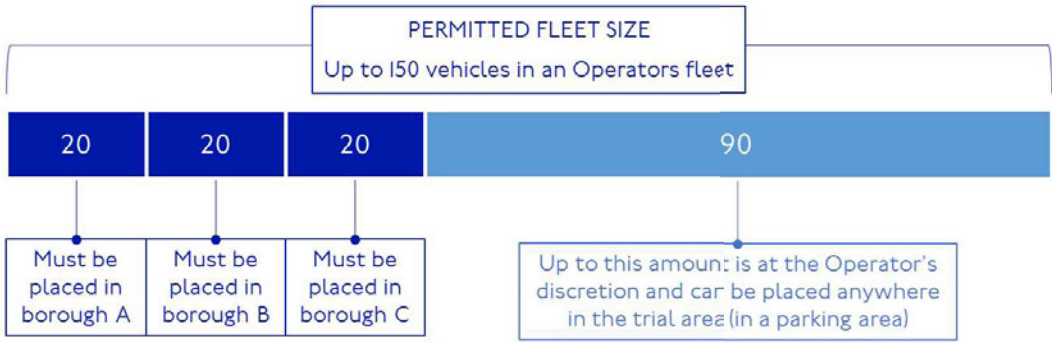


this document, which may act as a de-facto upper limit. Figure A provides an illustrative example of this for Trial Period I.

One borough calls off the Full-service contract...



Three boroughs call off the Full-service contract...



** These amounts are per Operator, therefore with more than one Operator these amounts will be multiplied*

Figure A: Example starting fleets for Trial Period I

- 9.2.3. Operators will be required to meet the Minimum Vehicle Requirement in all Full-service Boroughs from TP Day I of Trial Period I, and throughout the Trial.
- 9.2.4. Individual Full-service Boroughs will be able to change their Minimum Vehicle Requirement at the end of each Trial Period. This may result in varied Minimum Vehicle Requirements across the Trial Area. Full-service Boroughs should only consider increases to the Minimum Vehicle Requirement when Operators Permitted Fleet Sizes are also increasing as a result of the Permitted Fleet Size Review, and only by their 'share' of any increase. Full-service Boroughs will be encouraged to engage with Operators to ensure any change does not become over burdensome or represent too great a proportion of an Operator's overall fleet. Any change in Minimum Vehicle Requirement must be imposed fairly across Operators. Full-service Boroughs will need to notify TfL and Operators during the review process (set out in section I0) of any changes to Minimum Vehicle Requirements. with changes being implemented for the following Trial Period.

9.3. Maximum Fleet Size across the Trial Area

- 9.3.1. The Trial will begin with low numbers of e-scooters (as set out in section 9.1.3), and the actual number of e-scooters in an Operator's fleet over the course of the Trial is determined by their Permitted Fleet Size which is influenced by a number of factors including the number of Participating Boroughs, Operator performance more widely and demand, and will be reviewed every 4 weeks. The total number of e-scooters (sum of all Operators' e-scooters) present within Greater London shall not exceed 19,800 at any point during the Trial, but this is a technical maximum. Each individual Operator's Maximum Fleet Size shall simply be this total figure divided by the number of Operators selected. Changes to these figures cannot be made without explicit approval from all Participating Boroughs.

9.4. Changes to Permitted Fleet Sizes resulting from Full-service Boroughs joining or exiting the Trial

- 9.4.1. At the start of any Trial Period in which a new Full-service Borough has joined the Trial each Operator shall be allowed to increase its Permitted Fleet Size by up to 50 e-scooters for each Full-service Borough that is joining from that Trial Period.
- 9.4.2. This shall remain consistent for all Full-service Boroughs joining the Trial at a later date, unless or until any further increase to an Operator's fleet would take it above the Maximum Fleet Size as set out in paragraph 9.3.1. In the event this maximum has already been reached, then a borough may still join the Trial as a Full-service Borough, however the Operator shall only add as many e-scooters, if any, as required to increase its fleet up to the limit set out in paragraph 9.3.1. If no e-scooters can be added without exceeding this limit, then a borough may still join the Trial and the Operator would need to redistribute its fleet accordingly.
- 9.4.3. In the event that a Full-service Borough exits the Trial or changes its role to ride-through only, then each Operator's Permitted Fleet Size for the Trial Area as a whole shall be reduced by 50 e-scooters for each Full-service Borough that is being removed. These changes will come into force at the start of the Trial Period following the exit of the Full-service Borough(s).
- 9.4.4. No changes to Permitted Fleet Sizes shall result from the inclusion or exclusion of private (or other) land (see section 7.7) or Ride-through Boroughs.

10. PERMITTED FLEET SIZE REVIEW PROCESS

- 10.1.1. Outside of changes resulting from Full-service Borough joining and exiting the Trial, Operators' Permitted Fleet Size will be determined through the Permitted Fleet Size Review process. This will enable Operators to increase their Permitted Fleet Sizes, keep it constant or to decrease their Permitted Fleet Size where necessary throughout the Trial. Operators must comply with all elements of this process throughout the Trial.

10.2. The review process

10.2.1. The review consists primarily of three parts. A change in an Operators Permitted Fleet Size will mostly be dependent on:

Part 1 – Performance against key metrics

- TfL, following consultation with the Operational Board, will confirm to Operators the metrics and associated scoring to be used for the following Trial Period during the review process (or in advance of the Trial commencing for Trial Period I). All Operators will be treated equally in terms of metrics and scoring, and no additional data will be required to calculate these metrics over and above that already to be provided in compliance with the requirements set out in section I4.
- Where relevant, high and low performance targets for each metric will be set. Operators who exceed high performance targets will be considered for an increase to their Permitted Fleet Size (assuming part 2 and 3 are also successfully completed in that review), and those that fall below low performance limits may have their Permitted Fleet Size decreased for the next Trial Period. Examples of metrics that may be used include:
 - Utilisation rate across the entire Trial Area;
 - Utilisation rate in Priority Areas specifically;
 - Compliance with Minimum Vehicle Requirement;
 - Deployment of previous increases to Permitted Fleet Size.
- The specific metrics or targets to be used are likely to vary throughout the Trial to support continued delivery of the Trial objectives. TfL will work with London Councils, Participating Boroughs, Operators and the Police to refine and revise these throughout the Trial.

Part 2 - Participating Borough, TfL, Police and any other relevant party feedback on Operator performance over the Trial Period

- This process will be largely qualitative and will be used to ensure Operators are fulfilling the requirements set out throughout the Specification. Operators may be required to provide evidence of compliance with any requirement. Any element of Operator performance could be fed back on, however key considerations are likely to include:
 - Safety incidents;
 - Compliance with geographical or fleet restrictions (e.g. parking compliance, No-go Zones, etc.);

- Criminal activity or incidents;
- Environmental performance;
- User behaviour and Operator engagement.
- Data will be captured in a systematic way to ensure issues and learnings are captured, but also to ensure issues are addressed throughout the Trial. Where issues are judged to be serious enough, are occurring repeatedly despite being raised previously or are raised by a number of Participating Boroughs or stakeholders, this will impact on whether an Operator is eligible for an increase to its Permitted Fleet Size or must decrease the size of its fleet.

Part 3 - Operator feedback and recommendations

- This will take the form of a standardised report on a variety of aspects, including (but not necessarily limited to):
 - Their experience of the Trial in general, and the most recent Trial Period specifically;
 - Expectations for the upcoming Trial Period (e.g. changes in demand);
 - Recommendations for Participating Boroughs/TfL to consider (e.g. requirements to change);
 - Aspirations to increase or decrease the number of e-scooters in its Permitted Fleet Size, and if so by how many.
- For clarity, no personal data or information shall be included in these reports, and all Operators shall be asked for the same information.

10.2.2. Other factors relating to the Trial which may impact upon the appropriate number of e-scooters in Operators' fleets, such as existing or expected parking capacity or any automatic fleet size adjustments which will result from Full-service Boroughs joining or leaving the Trial, will also be considered in addition to the three parts of the review process .

10.2.3. The Permitted Fleet Size Review shall be conducted on a Trial Area basis, factoring in an Operator's performance across all Participating Boroughs to ensure demand and performance is consistent across the entire Trial Area. Any metric and scoring will be set for the Trial Area as a whole, not for individual boroughs.

10.2.4. TfL will endeavour to complete this process in the final week of each Trial Period, so that any changes to Permitted Fleet Sizes can commence from the start of the following Trial Period. In the event that the proposed timetable for the review process is unviable for any reason, the review may be conducted on a less frequent basis (e.g. every 6 weeks instead).

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- 10.2.5. An Operator can request a change to its Permitted Fleet Size during the review process. TfL, following consultation with the Operational Board, will agree, reject, or otherwise (e.g. accept a request to increase but only for a lower number of e-scooters), based on the outcome of the Permitted Fleet Size Review process. Operators will be informed of the outcome of this review process, and changes to Permitted Fleet Sizes (increases and decreases) shall commence from the first day of the following Trial Period. Operators will also be notified at this point of any other relevant changes, for instance updated Minimum Vehicle Requirements or new assessment metrics.
- 10.2.6. Decisions are final and there shall be no appeals process.
- 10.2.7. TfL, after consultation with the Operational Board, reserves the right to exercise discretion with regards to fleet size decreases.

10.3. Data and IT outages and errors

- 10.3.1. Operators must inform TfL of any system outages that affect either the customer service, data feed or even the granularity of the data that can be provided (as set out in section 14). Any planned updates that will have an impact on the customer or data provision should be reported to TfL with 48 hours' notice.
- 10.3.2. In the event that data is unavailable for a reason beyond the Operators' control to evidence any part of the review process, we shall ask Operators to provide this information in a format that can be easily inputted into the review process or the Data Platform. If no data is available or the Operator cannot reasonably provide it, then by agreement of TfL (following consultation with the Operational Board) a decision on fleet size changes can be taken by discussion and consent.
- 10.3.3. Where it can be shown that an Operator is intentionally supplying false information this will be considered a breach of contract, for which an Operator may lose its permission to operate in London.

II. PARKING

- II.1.1. It will be the responsibility of the Full-service Borough (or TfL on TfL land) to designate parking for e-scooters throughout the Trial, and these may vary throughout the Trial. Operators will be able to recommend areas of demand the Full-service Borough may consider for parking bays as part of the Permitted Fleet Size Review process.
- II.1.2. E-scooters must only be deployed by Operators or parked by Users in designated parking areas as agreed by the relevant Full-service Borough, TfL, or where applicable, on private (or other) land. Operators must ensure that e-scooters are not capable of being locked/rides cannot be ended outside of a designated area (albeit with a very small margin of error permitted, e.g. to account for the accuracy of any geolocation

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device/system). All parking areas provided by TfL or Full-service Boroughs shall be open to all Operators (i.e. no Operator-exclusive parking on TfL or Borough land), albeit the use of these areas will be on a first come first served basis unless otherwise advised.

II.1.3. The capacity of parking provision across the Trial Area may also act as a de-facto upper limit to the number of e-scooters an Operator can deploy, irrespective of its Permitted Fleet Size, given e-scooters must be parked in designated areas.

II.1.4. The demarcation of designated parking areas may vary. Within the types of parking that may be made available by the Full-service Borough Operators must meet the following requirements:

In physically marked bays, e-scooters:

- Must only be parked in an e-scooter parking bay (i.e. not in parking bays reserved for motorcycles or other motor vehicles), as designated by the Full-service Boroughs or TfL as a parking area (except where additional agreements exist as per section 7.7);
- Must be left fully within the bay;
- Must be parked in an upright, stable position and remain upright;
- Should not be parked in a way that inhibits entry or parking by other e-scooters;
- Should not exceed any maximum capacity set for that parking area.

Outside of physically marked bays (but still in designated areas) e-scooters:

- Must only be parked in a designated area (albeit these may not be demarcated physically), away from the carriageway and close to the kerb or at existing cycle parking;
- Must be parked in an upright, stable position and remain upright;
- Must not be parked:
 - outside any areas designated by Full-service Boroughs or TfL as parking areas (except where additional agreements exist as per section 7.7);
 - at bus stops, Santander Cycles docking stations and other public and active transport related facilities (except cycle parking);
 - adjacent to disabled parking or loading bays;

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- on private property without the prior agreement of the landowner, or in a way that restricts access to private property, especially fire exits or other emergency access routes.
- Must not be parked or deployed in a manner that:
 - inhibits access to dropped kerbs, crossings, or creates any access, safety or pedestrian crossing visibility issues;
 - inhibits access to any emergency facilities or utility facilities;
 - obstructs the highway (footway, cycle lanes and carriageway);
 - obstructs street furniture that requires pedestrian access (e.g. benches, parking meters).

II.1.5. Any e-scooter parked outside agreed parking areas will be non-compliant and Operators must ensure removal within the timeframe specified below:

If parked outside an agreed parking space	12 hours from notification received, Operator to complete removal.	Failure to remove the e-scooter within these timeframes may lead to its removal by TfL, a borough or the Police. Where an e-scooter is removed by TfL, a Borough or Police, the Operator will be liable for the cost of removal and storage.
If parked in a way that causes a danger or obstruction	2 hours from notification received, Operator to complete removal.	
In extreme circumstances	Without notice , removal may be completed by TfL, a borough or Police.	

- II.1.6. Operators will be expected to have efficient means of identifying when these events occur, and for rectifying the situation within these timescales. Where possible, Operators should consider the use of technological means to automatically notify an Operator of issues, for instance where an e-scooter has been knocked over when parked.
- II.1.7. Full-service Boroughs and TfL will endeavour to give Operators at least 48 hours' notice in advance of pre-planned changes to designated parking areas. Operators will be required to make any corresponding changes in their own systems to ensure compliance.
- II.1.8. Where specific events, incidents or emergencies occur, Operators will be required to immediately remove or otherwise vary parking areas as per any request from a Full-service Borough, TfL or the Police. See section 24 of the Specification for more details.
- II.1.9. The Operator must ensure that Users are aware of these designated parking areas, and the restrictions that apply. As a minimum, this is to

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include a map showing all permitted parking areas. Users must also be provided with clear instructions on how to park the e-scooter to ensure e-scooters are left securely and do not create an obstruction.

- II.1.10. Operators must deploy solutions that drive good user behaviour. Systems must include education, including elements of disability awareness so that riders understand the possible implications of their actions, and could also include penalties and incentives. Operators must notify TfL of any material changes to their proposed user behaviour systems that may alter their effectiveness ahead of any change being made.

12. DISTRIBUTION, PRIORITY AREAS AND KEY ZONES

- 12.1.1. Where possible, Operators should consider working together to coordinate distribution of their e-scooters and other operational activity to minimise wider impacts on safety, the environment and congestion.
- 12.1.2. Operators must also take reasonable measures to minimise any negative impacts on safety, the environment and congestion associated with deployment, collection and redistribution of e-scooters.

12.2. Distribution of Minimum vehicle numbers

- 12.2.1. As outlined in section 9.2, at the start of every TP Day each Operator shall ensure that a minimum number of individual (i.e. the same e-scooter cannot be used to meet this requirement in multiple places) fully operational e-scooters are located in each Full-service Borough.
- 12.2.2. E-scooters distributed to comply with the Minimum Vehicle Requirement (see section 9.2) may be placed anywhere within a Full-service Borough (within a designated parking area), unless a Full-service Borough chooses to designate specific areas ('Priority Areas') where this redistribution must happen.

12.3. Priority Areas

- 12.3.1. It will be the responsibility of the Full-service Borough to identify Priority Areas (if any) for the Trial. A Priority Area should be a specific area that the Full-service Borough wants to guarantee provision of e-scooters, be that to support the use of e-scooters by particular groups for inclusivity reasons or to support trips for specific purposes (e.g. outside a rail station to support a shift from short car trips).
- 12.3.2. Where a Full-service Borough has chosen to designate Priority Areas in its borough, an Operator shall ensure that all, or a proportion of, the Minimum Vehicle Requirement is located specifically within these areas. It is for the relevant Full-service Borough to determine how much of its Minimum Vehicle Requirement should be placed specifically in Priority Areas. Where only a proportion of the Minimum Vehicle Requirement is allocated to

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Priority Areas, the remainder must still be placed in the Full-service Borough but can be located at the Operators discretion.

- 12.3.3. It is for the Full-service Borough to decide how many Priority Areas they have, if any, and how the specified number of e-scooters are divided between these areas, albeit the requirement shall be split equally among Operators. However, to avoid a proliferation of areas, related distribution impacts and to provide greater certainty to Users, Full-service Borough cannot designate Priority Areas for fewer than three (3) e-scooters per Operator.
- 12.3.4. Priority Areas may be introduced or otherwise varied (in size, number of e-scooters or location) during the Trial, and any changes will be set out at the end of a Trial Period, so that they can begin from the start of the next Trial Period.
- 12.3.5. An Operator is free to place more e-scooters in these Priority Areas if they wish, so long as they are left in a designated parking area.
- 12.3.6. An Operator shall be expected to comply with any requirements within Priority Areas at all times, other than when exceptional circumstances (e.g. particularly bad weather) arise.

12.4. Key Zones

- 12.4.1. Full-service Boroughs are able to set 'Key Zones' throughout the Trial to mitigate excessive numbers of e-scooters being parked in sensitive locations, possibly to the detriment of the general public. This tool is only likely to be relevant where designated parking bays are not used, given the number of vehicles parked can otherwise be more appropriately controlled by the location and capacity of parking bays provided.
- 12.4.2. Operators must not permit more than the stipulated maximum number of e-scooters to be parked within each Key Zone to ensure local hotspots such as town centres do not become inundated by e-scooters. Any limit set by a Key Zone must be split equally between Operators.
- 12.4.3. Given the operational complexity of implementing and abiding by Key Zones, Full-service Boroughs are encouraged to engage with Operators prior to implementing Key Zones and should limit the number of Key Zones created to ensure the trial remains operationally viable. Full-service Boroughs should also not seek to limit the number of vehicles able to be parked in a Key Zone at an artificially low or inappropriate figure.
- 12.4.4. An Operator must remove any surplus e-scooters from Key Zones within these timeframes:

If Operator is notified that there are more e-scooters parked within a Key Zone than permitted	2 hours from notification received, Operator is to complete removal of the e-scooters.
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- 12.4.5. Within this timeframe, an Operator may choose to incentivise Users to take trips which reduce the number of e-scooters parked within the Key Zone. If User movements, or active redistribution, reduces the number of e-scooters below the stipulated maximum within this time limit then the situation will be considered resolved. If e-scooters are not removed within the stipulated time limits, these e-scooters may then be collected and stored by the relevant authority, the costs for which the Operator will be liable for.
- 12.4.6. Key Zones and their associated e-scooter limits may be introduced or otherwise varied during the trial to reflect changes in overall fleet size. Any changes will be set out at the end of a Trial Period, so that they can begin from the start of the next Trial Period. These maximums will be split equally between operators.

13. NO-GO AND GO-SLOW ZONES

- 13.1.1. In addition to the DfT's requirement of ensuring e-scooters are not ridden on footways (pavements) and other areas solely for pedestrians, the Operator should also prohibit the use of these e-scooters on high speed roads or other roads, where pedal cycles and e-bikes are prohibited (e.g. the A2, Blackwall Tunnel), or where a wider set of vehicles are prohibited (e.g. bus stations) by applying geo-fenced restrictions on these roads and areas. Participating Boroughs and TfL shall identify any such roads or areas in advance of a Participating Borough joining the Trial.
- 13.1.2. TfL and all Participating Boroughs may introduce or otherwise vary any No-go and Go-slow Zones on their roads/in their borough at any point throughout the Trial, and the Operator must ensure compliance as follows:
- **No-go Zones:** these are areas where the use of e-scooters is prohibited. Operators must have automatic (i.e. not within the remit of the rider) location-based deactivation capabilities which safely cuts the motor out and will not reactivate until the e-scooter is taken outside the geofenced No-go Zone and back into the Trial Area. Operators must have a mechanism in place to explain to Users why this has occurred and how the situation can be rectified. Operators must ensure that Non-Participating Boroughs are geo-fenced as No-go Zones.
 - **Go-slow Zones:** these are areas where the speed of e-scooters is restricted for safety reasons but not prohibited, for example shared space areas where pedal cycles are permitted and would also be expected to proceed at a reduced speed. Operators must have automatic (i.e. not within the remit of the rider) location-based speed restriction capabilities which safely reduces the maximum speed possible to 8mph when e-scooters are used within these zones.

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- 13.1.3. The Operator must ensure that Users are aware of these areas, and the restrictions that apply. As a minimum, this is to include a map showing all Go-slow and No-go Zones.
- 13.1.4. Participating Boroughs and TfL will endeavour to give Operators at least 48 hours' notice in advance of pre-planned changes to No-go and Go-slow Zones. Operators will be required to make any corresponding changes in their own systems to ensure compliance.
- 13.1.5. Where specific events, incidents or emergencies occur, Operators will be required to immediately remove or otherwise vary No-go and Go-slow Zones as per any request from a Participating Borough, TfL or the Police. See section 24 of the Specification for more details.

14. RESEARCH, DATA GATHERING, MONITORING AND EVALUATION

- 14.1.1. TfL and the Participating Boroughs research, data gathering, monitoring and evaluation interests for this research and development trial are in line with six key objectives as set out in section 2.2, as well as DfT requirements.
- 14.1.2. This section sets out the current requirements and aspirations for regular data reporting, research, monitoring and evaluation.
- 14.1.3. TfL and Participating Boroughs will regularly review the process of data gathering, research, monitoring and evaluation to find ways to improve the process.

14.2. DfT requirements

- 14.2.1. Operators must comply with DfT data sharing requirements and monitoring and evaluation processes as set out here:
<https://www.gov.uk/government/publications/e-scooter-trials-guidance-for-local-areas-and-rental-operators/e-scooter-trials-guidance-for-local-areas-and-rental-operators>

14.3. Regular data reporting to TfL

- 14.3.1. Operators will be expected to provide the data set out in Table I. These are our current assumptions on the data we would like to gather at the commencement at the Trial. Any data suffixed with an asterisk (*) is mandatory for Operators to share. Data will be shared between TfL and Participating Boroughs as necessary throughout the Trial, for instance for operational, compliance and evaluation purposes.
- 14.3.2. The data to be provided will need further assessment following Contract Award, to ensure data is sufficient for the Permitted Fleet Size Review process and to check whether there is any likelihood of individuals being identified from data shared pursuant to the Trial. The accuracy of GPS data is one factor that will be taken into account. If necessary, a Data Protection Impact Assessment will be carried out to ensure that any processing of

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personal data is compliant with the GDPR. Any data collected will need to be aligned with a clear purpose of use to ensure only the minimum data required is shared, in line with the obligations of 'data minimisation'. TfL and the Operators will work to agree the process, format and regularity of this data sharing, and to standardise and automate this to streamline the process for Operators. If required by TfL, all Operators must sign a data sharing agreement with TfL within two weeks of Contract Award, unless a longer time period is expressly permitted by TfL.

- 14.3.3. The Operator will be required to submit a monitoring and evaluation report to TfL before launch outlining the agreed format, granularity, process and regularity for sharing the information set out in Table I and any further data provided. Where required by TfL to supply any of the relevant data set out in Table I or any other data that may be requested as the Trial progresses, the Operator must provide Application Programming Interface(s) (API) in an appropriate format (such as the Mobility Data Specification (MDS) format or equivalent where relevant), using the most current version of any applicable standard and any APIs must be made accessible to officers from TfL. Data must be provided in 'near real-time' where required by TfL. Where other formats are required to supply any of the data set out in Table I, or other data that may be requested as the Trial progresses, Operators must provide data in the format as required by TfL.
- 14.3.4. Operators must also agree to work with the provider of the Data Platform to ensure all data feeds are compatible. TfL expects the APIs to be fully functional before the launch of the service. Testing of this two-way data feed will need to be part of mobilisation. All Operators will be required to provide data in the same format, and provide the same APIs allowing for two-way data exchange.
- 14.3.5. TfL will share with the Operator the geofencing data set out in sections II, I2 and I3, but solely data related to TfL and Borough land and highways, and Operators will need to demonstrate the performance of their systems to accept, accurately display the information, implement each of the relevant requirements within the time limits set out in this Specification and share information regarding user-facing geographic requirements with Users.
- 14.3.6. Though we hope to work with the DfT on its User survey, TfL expect to have further survey(s) to address London-specific questions. For example, to understand the immediate and longer term impact this mode may have on travel behaviour in London, as well as to capture the User experience on our infrastructure. TfL will work with Operators to agree the best process for such survey(s).
- 14.3.7. As this is a research and development trial, TfL will be undertaking mid and final trial evaluations and we would value any additional data or insight that Operators can provide throughout the Trial to inform these reports and support us with assessment of the Trial against our six learning objectives. This might for example include swerve data to understand impact of infrastructure, or insight sessions for TfL staff on day to day operational issues, or how the business model works.

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14.3.8. Operators will be required to submit a monitoring and evaluation report ahead of Trial commencement, detailing how the data requirements and requests set out in this section will be met throughout the duration of the Trial. TfL must approve this report before the Trial start date. This report will include details of:

- the format, granularity, process and regularity of sharing the data set out in Table I below;
- the provision of APIs for the Data Platform;
- any further data offered to help support TfL objectives;
- the content/structure of the six-weekly data summary requested by DfT;
- how User feedback will be shared with us;
- proposed incident log and incident response process; and
- proposed process for how to share complaints and issues with TfL in appropriate and usable format.

14.3.9. Compliance with data requirements, and performance of the two-way data sharing through the Data Platform will be part of regular discussions with the Operator and TfL, with any contraventions that can't be resolved escalated to Operational Board meetings.

14.3.10. Operators will also be required to submit a final evaluation report themselves (within four weeks of the end of the Trial), based on the six objectives TfL has set out for the Trial. Further details of this report will be agreed with Operators as the Trial progresses.

Table I: Data requirements

Data	Notes
E-scooter utilisation and trip data	
Unique trip IDs*	Each trip to be recorded with unique trip ID
Routing of each trip*	Lowest level of granularity to be discussed with Operators
Trip start data*	Starting point and date & time stamped
Trip end data*	Ending point and date & time stamped,
Distance travelled*	Distance travelled for each trip by trip ID
Trip time*	Time taken for each trip by trip ID
Maximum speed*	Maximum speed reached on trip, by trip ID
Unique e-scooter identifiers*	Unique ID for each e-scooter in operation
Locations of all e-scooters*	Using unique e-scooter ID and time & date stamp
Vehicle type for each e-scooter*	For each unique e-scooter ID
Propulsion type for each e-scooter*	For each unique e-scooter ID

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E-scooter status (available for hire/on-hire/out of service) *	Using unique e-scooter ID and time & date stamp
Number of trips *	Summary data aggregated from above
Aggregate trip origin/destination information*	Summary data aggregated from above
Fleet utilisation *	Summary data aggregated from above
Device quantities by locations *	Summary data aggregated from above
Understanding Users and Usage	
Age-band* †	Required by DfT. Aggregate level, interest in reports on usage, behaviour, survey responses and travel patterns
Ist-part postcode* †	As above
Gender* †	As above
Disability* †	As above
Race & Ethnicity* †	As above
Mode shift question* †	As above, related to short survey questions asked at random at end of trip
Perception/actual safety* †	As above, related to short survey questions asked at random at end of trip
Customer feedback *	Customer feedback (positive and negative) through app or customer services options
Contacts made to customer service – to include complaints, issues and compliments from Users and non-Users *	Number, issues, location, action taken, User vs non-User spilt in terms of type of concerns/ issues
Fines levied by Operator on Users (i.e. for poor parking)	When, reason and size of fine
Pricing option used for trip*	Aggregate level data. Trips using different pricing options, origins and destinations of these trips.
User survey responses*	Aggregate level to understand aspects like mode choice, mode shift, longer-term impact on travel habits and behaviour, plus User experience on London's streets
Registration figures	Understand level of interest, time between registration and first ride
Safety and incident reporting (including cleaning and maintenance)	
Type of incident*	Operators to collate in occurrence/incident log & share anonymised, aggregate data
Outcome of incident *	See above
Location of incident *	See above
Non-personally identifiable User information *	Customer information relevant to the incident (e.g. type of licence held, number of trips taken prior to incident etc.)
Time of incident and conditions (e.g. weather, light) *	See above
Vandalism	Record of e-scooters, using unique ID that have been vandalised and how

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Theft	Record of e-scooters, using unique ID that have been stolen and last known location
Cleaning*	Unique e-scooter ID, date of last regular and deep clean
Maintenance *	Date of last regular and pro-active e-scooter inspection, using unique e-scooter ID.
Environmental and sustainability related metrics	
Source of energy	Used to re-charge e-scooters
Scooters removed from circulation*	Unique ID, reason and location
Recycling of e-scooters*	Unique ID, elements recycled and how
Efficiency rating*	To understand impact on environment
Disposal of batteries	Number and disposal approach used
New batteries issued	Number of new batteries issued
Vehicles used for redistribution*	Details of vehicles used for redistribution of e-scooters
Battery life remaining	By unique e-scooter ID, date & time stamped
Tracking Education, Marketing and Outreach activities	
Type of courses offered*	List of training options and delivery methods, including new User sign up training
Number of each course type completed*	Type of course and number of Users completing course
Users required to do additional training	Type of course and number of Users completing course and reason for offering the course
Details of outreach and marketing activity *	When, where, activity conducted and number of participants

† This is a DfT data request, so TfL hopes to be able to collect this data for London from the DfT. Any survey questions TfL or the Participating Boroughs have will be discussed with the DfT to see if they can be part of a national survey. However, TfL and Participating Boroughs are likely to have extra research requirements for London and may wish to run our own survey. We would work with Operators to agree the best process for this.

15. DATA DOCUMENTATION AND REGULATIONS

- 15.1.1. TfL and the Boroughs are subject to FOI Legislation and the Operator will need to assist and cooperate with TfL to support TfL and the Boroughs in complying with its obligations where reasonably requested by TfL and/or the Boroughs.
- 15.1.2. The Operator will need to have in place, and agreed with TfL, the following Trial specific policies/agreements in order to run the Service:

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- Data sharing agreement between TfL and the Operator (If required by TfL);
- User agreement;
- Privacy policy; and
- Data collection, handling, storage and sharing policy.

15.1.3. TfL and the Operator will work together to agree the most appropriate, secure mechanism to collate and transfer the data required and frequency of sharing it. It is expected data would be collected from the app, website, management information system, GPS/telematics, incident/safety and User survey data. Operators must also adhere to TfL's Cyber Security Standards and Policies.

15.1.4. The Operator must comply with Data Protection Legislation and agreed security standards as further set out in an Administration Agreement. Applicable security standards will be finalised before the launch of the Trial and may be reviewed throughout the Trial.

16. VEHICLES

16.1.1. Throughout the Trial the Operator's e-scooters must comply with the vehicle definition and technical standards set out by the DfT (the definition can be found in paragraph 4.2.1). E-scooters must be approved for use in UK trials by the DfT ahead of any contract being signed and e-scooters being placed on roads in London.

16.1.2. In addition to these minimum DfT standards, all e-scooters must have the following specific features³:

- Be capable of efficient braking at all times, for instance where the battery is drained, and on all road surfaces in typical weather conditions;
- Have a bell or acoustic warning device fitted which can be easily used by the rider without them having to move their hands from the handlebars;
- Have forward and rearward lighting which is always on throughout a rental;
- Have a unique identification number on each e-scooter which is easily visible, as well as other distinguishing features which allow e-scooters

³ Some of these additional requirements may already be covered by the DfT's vehicle assessment procedure that an Operator must successfully complete to be approved for trials

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to be easily identifiable as a rental e-scooter. These numbers should link e-scooters to data collected;

- be easily distinguishable from other Operators participating in the Trial;
- Have on-vehicle information outlining contact details for reporting; and
- Have a means of being self-standing (e.g. a kick-stand).

16.1.3. Operator's e-scooters must also be designed:

- with the safety of Users, including under impact, and the general public in mind;
- To be adequately weather resistant and suitably robust for frequent, outdoor use across all of the Trial Area;
- With physical measures to prevent theft and vandalism;
- to ensure the stability of the rider on the carriageway and cycling facilities including under minor impacts (in line with DfT standards referenced in section 4.2.1) of varied road surfaces; and
- to prevent the battery exploding, catching fire or leaking upon impact, or otherwise causing injury to riders or the public.

16.1.4. As for on-board technology, e-scooters used in the Trial must have the means of:

- reporting and tracking in near-real time the location of the e-scooter and recorded trip origin and destination;
- automatic (i.e. not within the remit of the rider) location-based speed restriction and deactivation to comply with areas set out in section 13. Deactivation capabilities must enable an Operator to safely, by remote means, immediately make an e-scooter unavailable to rent in the event that it is reported as unsafe (see paragraph 17.1.3), but also where an Operator is notified that an e-scooter may have been used in criminal activity or have been involved in a collision or injury and is needed for investigative purposes;
- enforcing location-based parking restrictions as set out in the designated places for parking determined by the relevant Participating Borough; and
- reporting the live status of the e-scooter, including battery charge levels and if any faults have been reported.

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- 16.1.5. The maximum speed limit across the Trial Area will be 12.5mph (other than in No-go and Go-slow zones where alternative restrictions apply). TfL, following consultation with the Operational Board, may at any point alter the maximum speed limit across the Trial Area (outside of No-go and Go-slow zones where other restrictions apply) and/or the maximum speed limit in Go-slow Zones, and Operators must ensure its e-scooters comply with any changed maximum speed limits.
- 16.1.6. Throughout the Trial, Operators will be encouraged to introduce enhanced e-scooter designs, hardware or technology to improve rider safety, experience and compliance with the aims of the Trial (e.g. enhanced battery life to increase the reliability of e-scooters as a genuine alternative mode of transport). Changes may need to be approved by DfT, Participating Boroughs or TfL prior to implementation, and Operators will need to notify Participating Boroughs and TfL of any changes adequately in advance to enable assessment of the proposed changes. For clarity, neither TfL, London Councils nor Participating Boroughs will cover the costs involved with introducing new e-scooter designs.

17. MAINTENANCE REQUIREMENTS

- 17.1.1. The Operator must ensure that all e-scooters (both individual parts and the e-scooter as a whole) made available to rent are maintained to ensure they are safe to operate, in good working order, are adequately charged and cleaned regularly.
- 17.1.2. Maintenance regimes must include:
- Regular and deep cleaning and disinfection of e-scooters, particularly in light of the risks presented by COVID-19, with additional processes in place for e-scooter touchpoints (e.g. handlebars, brake levers, etc.) to be cleaned at least once a day. Cleaning products in use for these purposes should be effective and must not cause a risk to riders or have adverse environmental impacts;
 - Regular and pro-active e-scooter inspection for wear and tear, and stress-based damage that could lead to failure, consistent with or exceeding manufacturer's maintenance recommendations, and associated record keeping which must be made available to TfL upon request; and
 - A strategy and activities for maintaining and disposing of electric batteries.
- 17.1.3. E-scooters that are not operable or are unsafe for whatever reason must be made unavailable for rent immediately and removed from the public highway within the following timeframes:

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<p>If e-scooters are not operable or are unsafe. This includes inoperability due to insufficient battery power, communications failure, other systems and software failures, unhygienic cleanliness or vandalism and involvement in a collision or User injury.</p>	<p>Made unavailable to rent immediately and removed within 24 hours from the time notification received (by a Borough, TfL, the Police, Operator's own systems or riders / non-riders) unless e-scooter is also in contravention of another requirement with a shorter time period.</p> <p>E-scooters removed for this reason must be repaired before being returned into service.</p>	<p>Failure to remove the e-scooter within these timeframes may lead to its removal by TfL, the Borough or the Police. Where an e-scooter is removed by TfL, the Borough or Police, the Operator will be liable for the cost of removal and storage.</p>
<p>If the e-scooter presents a danger or an obstruction</p>	<p>Made unavailable to rent immediately, and removed within 2 hours from the time notification received (by a Borough, TfL, the Police, Operator's own systems or riders and non-riders)</p>	
<p>In extreme circumstances</p>	<p>Without notice, removal may be completed by Police, Boroughs or TfL.</p>	

18. ENVIRONMENTAL REQUIREMENTS

18.1.1. Operators must take reasonable steps to minimise the environmental impact of all aspects of their operations. This includes:

- Ensuring that e-scooters are designed, manufactured, maintained and disposed of (if necessary) in a manner which adheres to circular economy principles and ensures a low lifecycle environmental impact;
- Ensuring that e-scooters are maintained using processes that extend the durability and lifespan of the e-scooter and ensure the safe and legally compliant repurposing or disposal of batteries;
- Minimising waste generated in the course of delivering the service by implementing the waste hierarchy and circular economy principles;

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- Ensuring that deployment and redistribution processes are conducted in as environmentally friendly manner as possible, with particular regard to the vehicle/methods used for redistribution and the time of day it is conducted at;
 - Minimising energy consumption and using renewable sources for e-scooter recharging and other purposes where possible.
- 18.1.2. Any motor vehicles used for collection and distribution activities must, as a minimum, be ULEZ compliant and Operators are strongly encouraged to use zero emission or non-motor vehicle methods wherever possible.
- 18.1.3. Operators must ensure their e-scooters do not cause damage to, or pollution of, waterways or water courses including rivers, canals, lakes and pond, as well as other particularly environmentally sensitive sites. Serious environmental breaches may be considered a breach of contract, for which an Operator may lose its permission to operate in London.
- 18.1.4. Operators are encouraged to set out how they will fulfil the above requirements in an environmental management plan. Any such plan should be made available to TfL and Participating Boroughs, include identification of the key environmental risks associated with the provision of the services, any mitigation measures that will be used to remove or minimise any adverse impacts, and also how the Operator will report on environmental performance. Operators will also be encouraged to improve their environmental performance throughout the Trial.

19. MITIGATING HIGH RISK BEHAVIOURS

- 19.1.1. Operators must have strategies in place to minimise high-risk behaviours, including:
- Intoxicated riders (including both drugs and alcohol);
 - Use of mobile phones and other technology while riding;
 - Use on footways/pavements;
 - Use on high speed roads (50mph +) or other roads where there are additional risks (e.g. tunnels) where bicycles are prohibited;
 - Use at night and associated reductions in visibility;
 - Use by unauthorised including underage persons;
 - Use by more than 1 person;
 - Any other threats riders may face before, during or after a rental (e.g. risk of assault); and

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- For the prevention of theft and vandalism, and the use of the e-scooters in criminal activity.
- 19.1.2. An Operator will be expected to take action where they are aware (or have been made aware) of individuals that repeatedly exhibit these risky behaviours or use the e-scooters in a way that is dangerous or illegal. Operators must maintain a record of Users barred from its service throughout the Trial, and this shall be made available to the Police if relevant to any investigation. Operators may also consider sharing their record of 'banned' Users with the other Operators undertaking the Trial for mutual benefit.
- 19.1.3. The Operator will take full responsibility for managing any issues of e-scooter theft, vandalism and recovery of abandoned e-scooters. As already noted, where e-scooters are moved and stored by the Police, TfL or a Borough, the costs of doing so shall be payable by the Operator.

20. ENGAGEMENT AND EDUCATION

- 20.1.1. The Operator must conduct education for Users and outreach for both Users and non-Users of the e-scooters, as well as with community and stakeholder organisations. This should be designed to have the maximum reach, including for those who would not come into contact with the Operator's app or digital channels and those whose first language may not be English. The intention of this education and outreach is to inform Users and non-Users alike about:
- the Trial;
 - how they can use your e-scooters (including information on riding safely and promoting equitable access programmes); and
 - how to access customer service, community feedback and complaints channels
- 20.1.2. The Operator will also be encouraged to share its wider experience of e-scooters with TfL, Boroughs and the Police throughout the Trial, and to engage with and support efforts to tackle the wider issues (e.g. use of e-scooters in criminal activity) related to e-scooters, both private and rented.

20.2. Training and safety information for Users

- 20.2.1. The Operator must make easily available within its app at all times, comprehensive and clear training to Users on how to ride e-scooters safely and considerately, with training mandatory for first time riders before they can start a ride. This information must be made available in a format that maximises understanding, including for those whose first language may not be English, and as a minimum should cover:

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- which parts of the road e-scooters can be used on, with absolute clarity provided as to the prohibition of riding the e-scooters on footways (pavements);
- where e-scooters can and cannot be ridden, including the different types of areas relevant to Users (including No-go and Go-slow Zones) and the implications of entering each area. These areas, along with designated parking areas, will need to be communicated clearly to Users on a map throughout the Trial;
- how to ride and operate the device safely, and in a considerate manner to other riders and road Users, for instance by including basic elements of the highway code (e.g. avoiding vehicle blind spots);
- the implications for road traffic offences (given these e-scooters are considered motor vehicles) including but not limited to rules concerning:
 - use of mobile phones and other electronic devices;
 - drink and drugs (intoxicated riding); and
 - that only one person is permitted on an e-scooter.
- where and how to safely park the e-scooters without causing obstruction, including elements of disability awareness training to ensure riders are aware of the possible implications of poorly parked e-scooters;
- any Trial, London or other local specific rules, for instance that Users cannot use the e-scooters on train platforms, and that non-folded e-scooters cannot be taken on TfL services; and
- any hygiene-related recommendations, in particular that Users are recommended to wash their hands thoroughly before and after use.

20.2.2. To ensure the safety of Users, the Operator must have systems in place to:

- verify riders, their age (16 years or older) and their driving licence validity to avoid use by unauthorised persons. Users must hold a minimum of a provisional driving licence to legally use the e-scooter. The Operator should consider 2 factor authentication or equal alternative means to prevent fraudulent misuse;
- confirm that first-time Users have understood the training information in advance of being able to start a ride, and that riders are periodically prompted to refresh themselves of rules, training and guidance;