



The Kerbside Booking Platform

Putting the **kerb** into kerbside charging

TTF EV Charging Infrastructure & Innovation update
Bolton 21st Feb 2024

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grid[®]

Urban Freight

Kerbside Management

Environment



Grid is our company

Grid Smarter Cities is a UK based software solutions company specialising in kerbside management, providing sustainable and efficient solutions **addressing today's key logistical challenges and environmental issues** using smarter technological innovations.



Kerb is our Product

Kerb is a **digital platform that allows advance booking, flexible use, and optimisation of existing kerb space.** It offers a seamless connection between logistics operators and local authorities.

Chaos in the last mile

Cities are growing, populations are expanding, congestion is increasing, **impacting on...**

Health

40,000 extra deaths in the UK caused by poor air quality

Economy

Congestion costs the UK economy **£8.0bn per annum**

Environment

CO2 is responsible for **60%** of the greenhouse effect

Cities

Contribute to **72%** of global CO2.

And it is forecast to get worse, by 2030 it is predicted that there will be...



+21% more congestion



+60% people living in cities



+78% last mile deliveries

At the kerb there are many competing users, diminishing capacity, inflexibility and no dynamic prioritisation or management.

Commercial freight, servicing & delivery operators are currently forced to function on an uncertain 'first come first served' basis leading to increased space conflict, inefficiencies and penalty charges.

Kerbside chaos - *Right now users experience chaotic, dysfunctional and unsafe streets*

The 'kerbside' refers to the area of the roadway immediately adjacent to the kerb. It is a complex, critical, multi-dimensional site of interaction between people, vehicles and 'place'.

Historically dominated by private vehicle parking, in dense urban environments local authorities have struggled to effectively regulate demand and allocation, relying on approaches that focus mainly on restricting activities or providing a limited amount of specific, dedicated space.

It has been over 40 years since the use of the kerbside was last significantly considered and set out in regulation, predominately through consideration of car parking controls.

As a result, right now users experience significant frustration, unsafe situations, stress and conflict in attempting to carry out activities at the kerbside. Much of the mismatch in supply and demand is currently 'tolerated' by society through day to day illegal or non-compliant behaviour and limited or patchy enforcement activity.

The scale of problems encountered by users and how 'unmanaged' the kerbside feels to them is best understood and conveyed through the snap shot examples opposite.

“
I can PCN you to my heart's content because you're not meeting the rules, but we've also made it impossible for you to carry out your business operations effectively - Local Authority User
”

“

Kerbside is only visible where there is a power struggle for access – the rest of the time its forgettable/ invisible - Local Authority User

”



School delivery blocking pavement despite 'Keep Clear' road markings and installed banner



Major challenge of new, concentrated demand driven by food delivery services



Allocating space for new mobility and enforcing rules



Eating and charging - defining the purpose, use and allocation of kerbside



Communicating clearly to users in an enforceable way



Wide variety of kerbside uses – no application for suspending the loading bay it's situated in

Local Authority Landscape - multiple teams, many priorities



Smart Cities:

- Digital innovation



Highways:

- Network management



Public Realm:

- Increased safety of all users



Business:

- Asset efficiency



Air Quality:

- Improved air quality



Parking:

- Increased compliance

Challenges faced by Commercial Operators

Freight, servicing and delivery operators faces greater pressures on limited space and are looking for innovative ways of enabling greater kerbside usage in a way that is flexible, safe and offers equitable access to all.



Traffic Congestion

Vehicles circling and idling whilst looking for parking access contributes to congestion



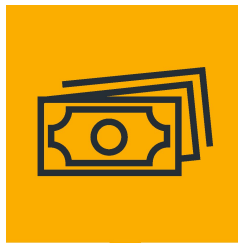
Environmental Impact

Logistics journeys make up 23% of all road transport CO₂ emissions, 33% of NO_x, and 29% of all PM2.5



Operational Inefficiency

Prolonged journeys due to circling and idling cause reduced productivity



PCN Charges

Unwanted Penalty Charge Notices (PCN) can cost a logistics operator £1,000,000 annually

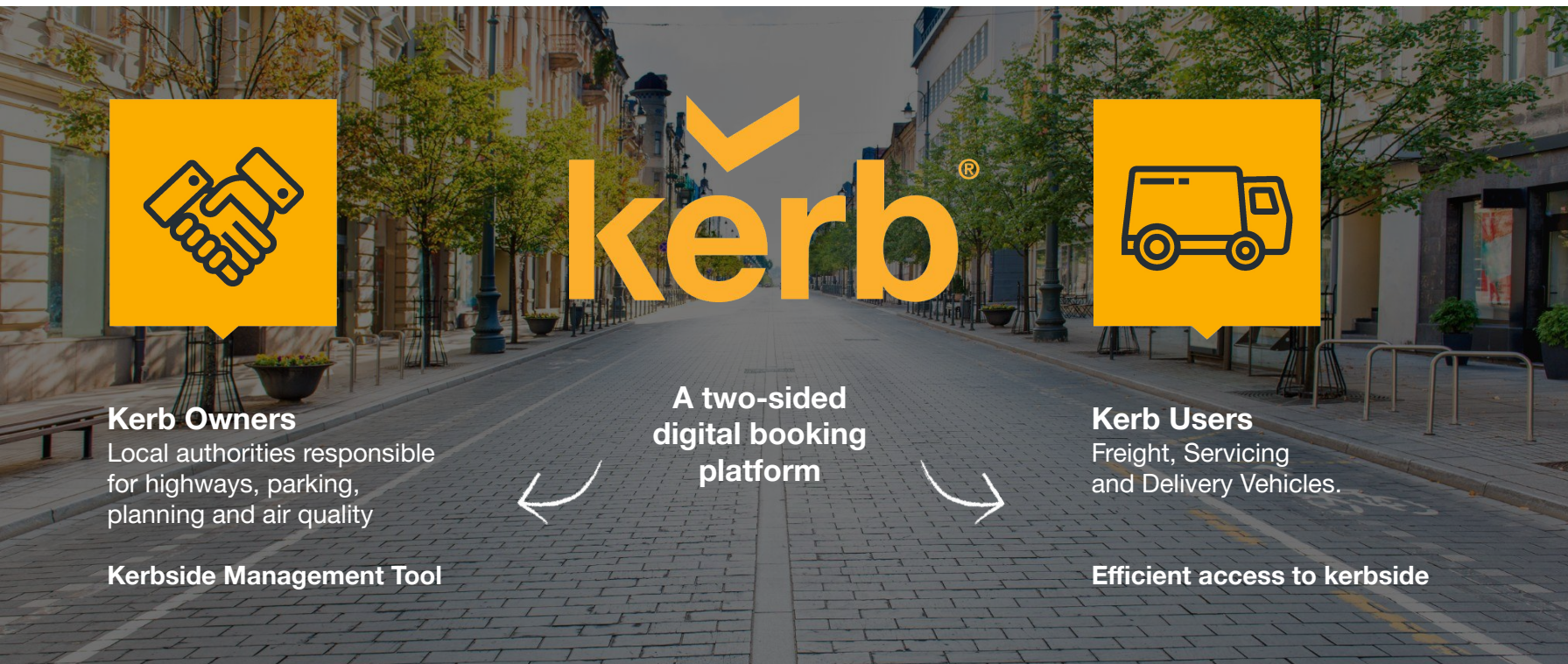


Safety

Lack of access increases safety risks for drivers and other users

Dynamic Kerbside Management

Grid's **Kerb® platform** turns the current static kerbside into a **dynamic, three-dimensional, bookable asset**. Empowering local authorities to prioritise, track, better manage and monetise kerbspace.



Dynamic Kerbside Management

An integrated software and hardware solution developed, deployed and managed by experts enabling sustainable and efficient management of kerbside and urban spaces.



Software

Booking App, integration
with other technology, data
management



Hardware

Smart signs, 3rd party
hardware integration

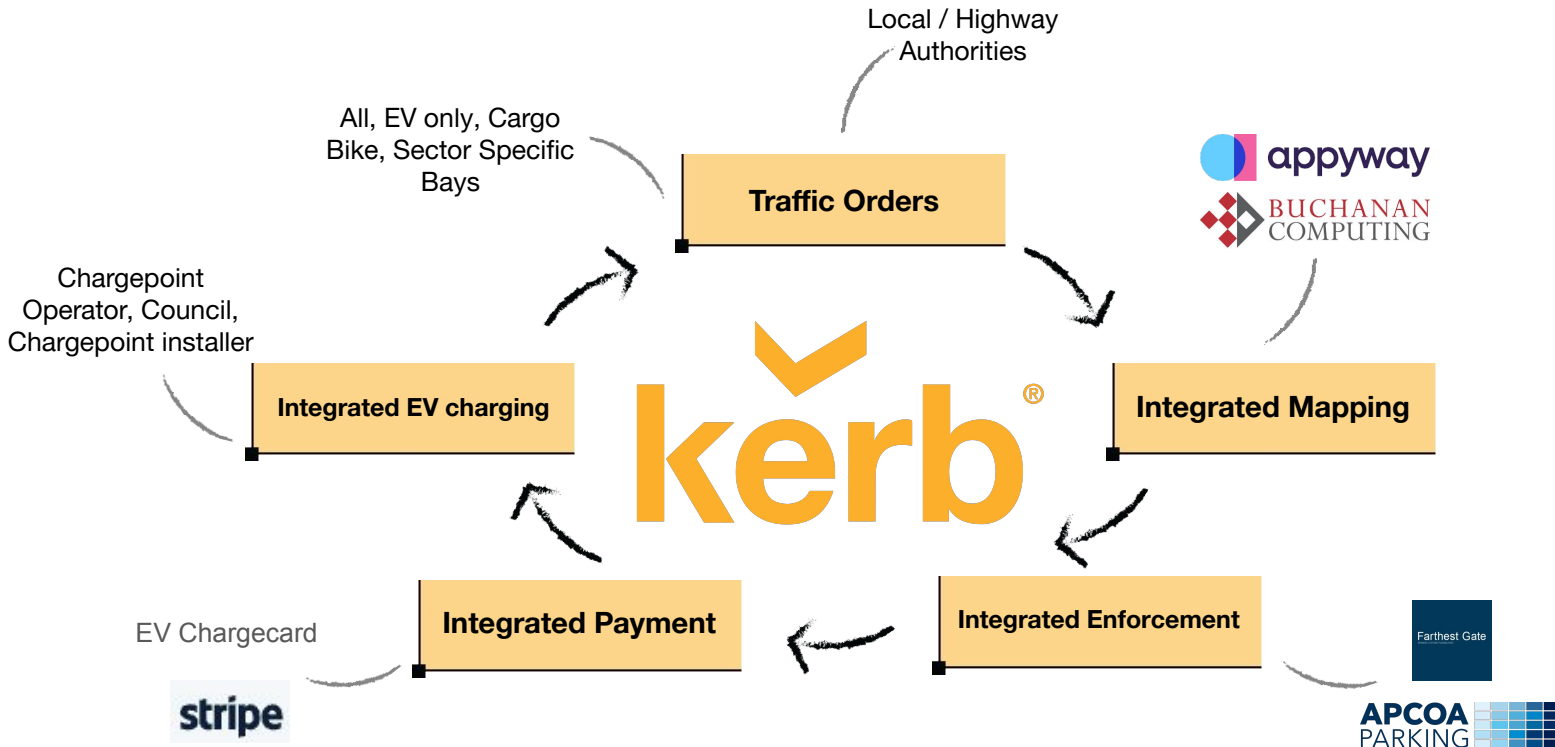


Expertise

Consultancy, project
management,
deployment

Kerb Ecosystem

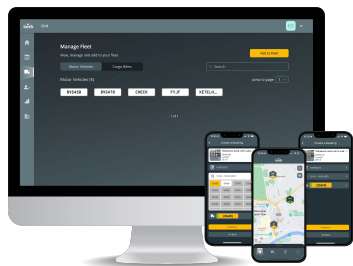
Kerb® platform turns static kerbside into a **manageable, changeable, 3 dimensional real estate.**



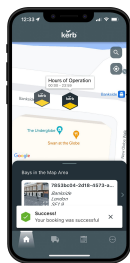


Seamless Booking & Kerbside Management

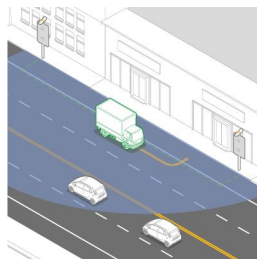
Integrated with existing mapping, enforcement and payment platforms with an easy step-by-step approach



Bookings can be made via web application or mobile app



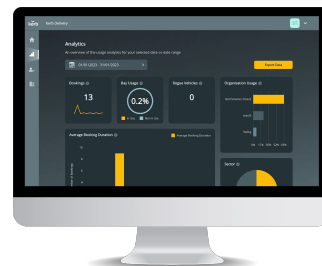
Guaranteeing space for Kerb Users (and EV charging)



An advanced booking reduces vehicle dwell time



Enforcement integration for compliance



Greater efficiency, improved productivity & safety, less CO2 in cities

kerb® - Platform solutions

Kerb® provides **advanced booking capability** to access kerbside locations. It incorporates a web app for the delivery company, a mobile app for drivers and connects directly to the highway authority's mapping, enforcement and payments solutions. It currently has **three bay types**, designed to meet the specific needs of different kerb users, and the rules and priorities of the kerb owner.

- **Permit Loading Bay:** The digitalisation and management of an existing or newly created on-street parking or loading bay allowing bookings to be made in advance by time slot on the Kerb platform.
- **Virtual Loading Bay:** Digitally created alternative location for the Permit Loading Bay if it is blocked or unavailable; OR as a standalone digitally created dispensation bay that requires no physical signage or infrastructure.
- **Chargerie™:** Addition of a fast/rapid EV charger in a bay(s) on-street and/or off-street, allowing fleet parking, charging & payment in one simple transaction.



Different Bay Types:

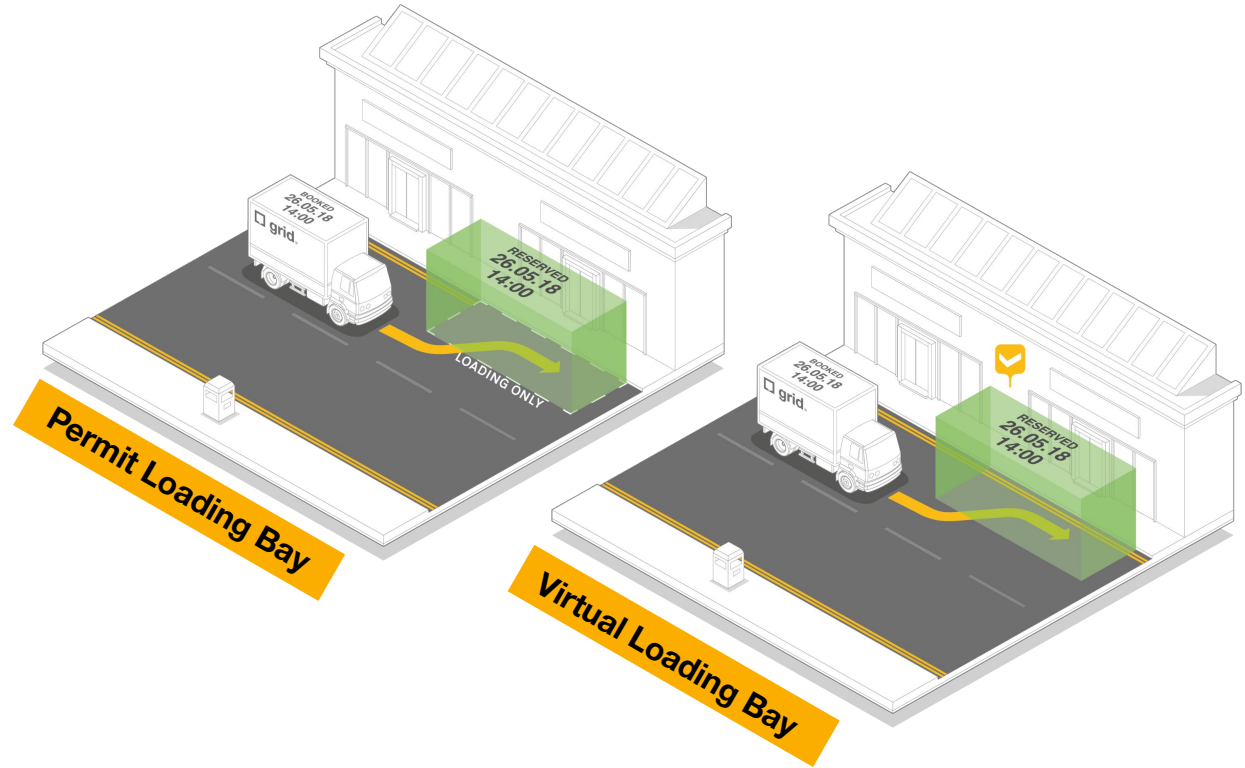
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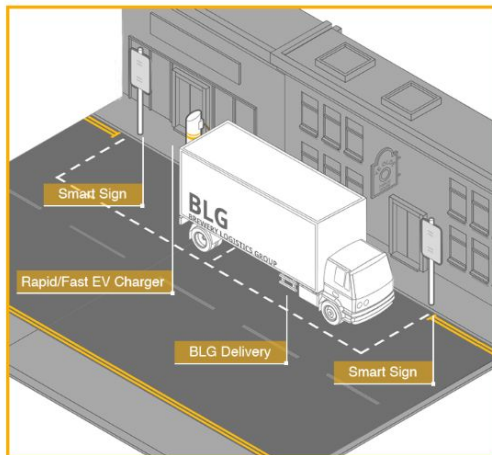
kērb® Chargerie™

Accelerating the move to EV

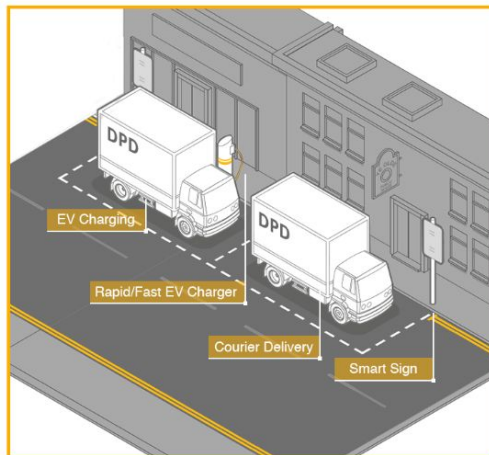
- Book, park, charge, pay in one simple transaction
- Accelerate the transition to EV
- Increased throughput of bay users



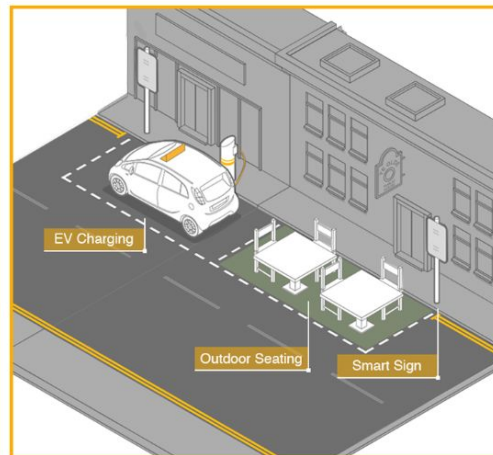
Morning



Afternoon

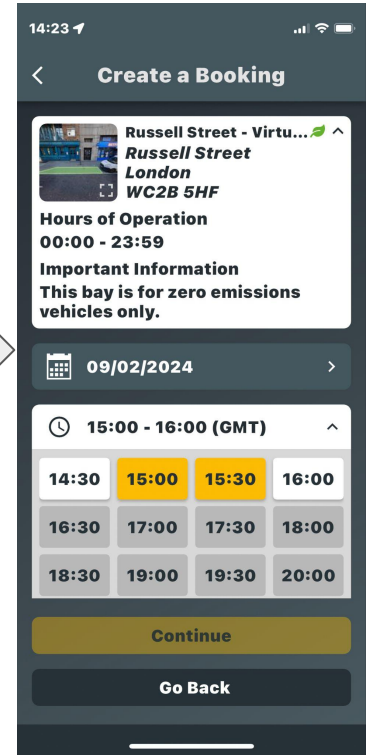
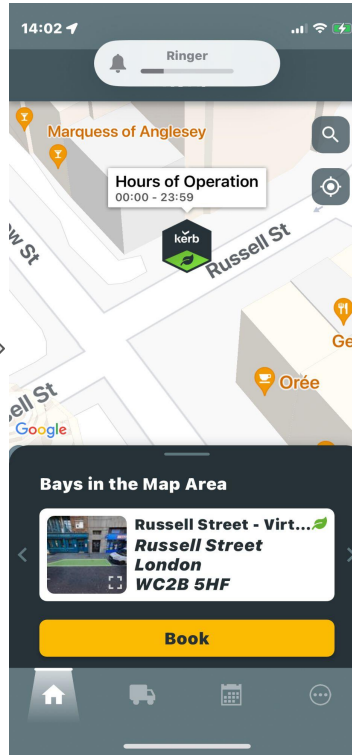
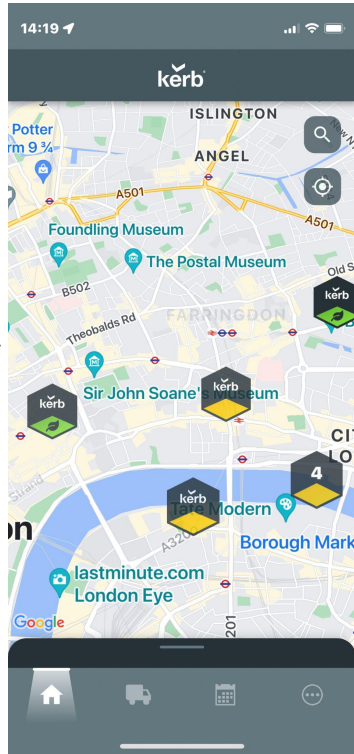
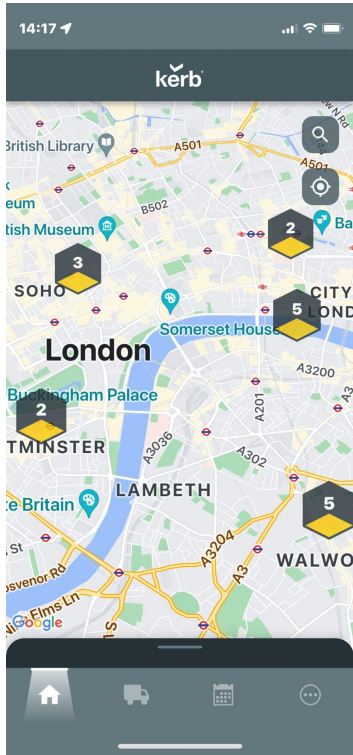


Evening



Grid's dynamic kerbside management solution with Chargerie™ concept.

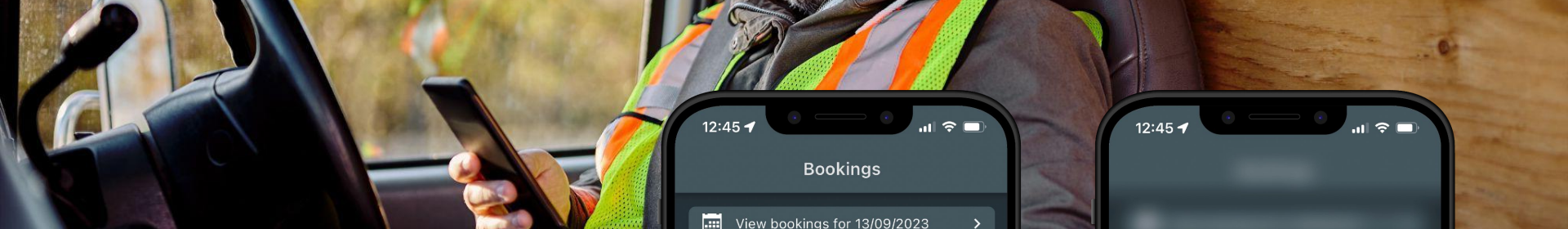
kērb™ Mobile application



EV Only Bays depicted by green icon

available on Android & iOS





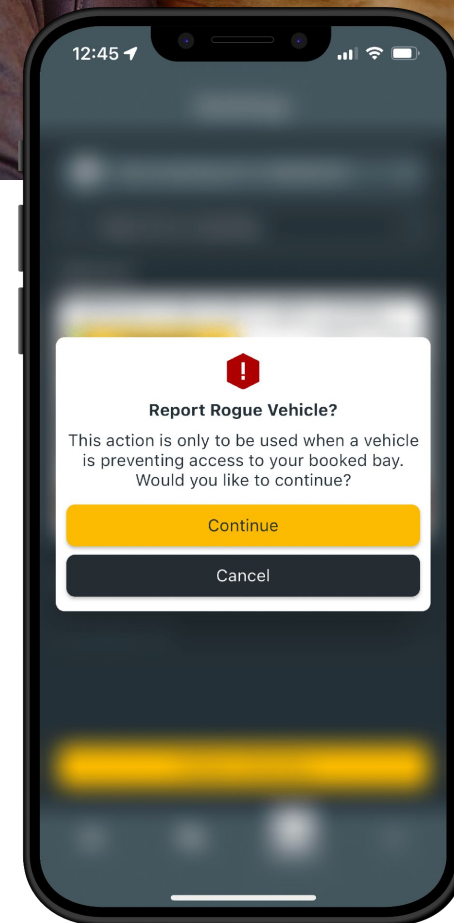
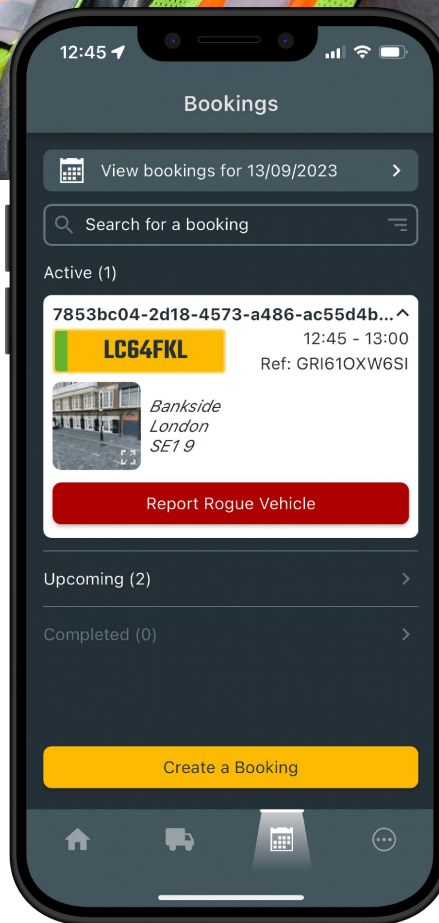
Rogue Vehicle Reporting

A rogue vehicle is an illegally parked vehicle or a vehicle that has 'overstayed' in a booked bay.

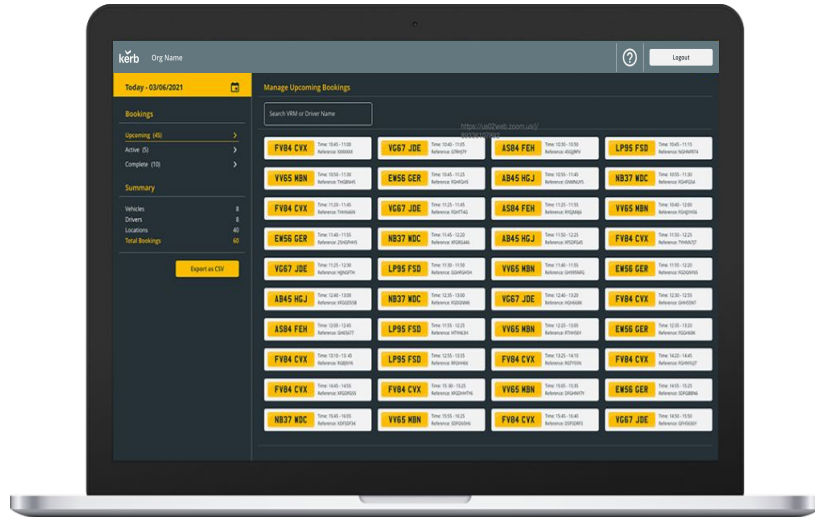
If a driver arrives at a booked bay and finds an unauthorised vehicle, they can press the rogue vehicle button in the app to report it.

An alternative location will be automatically generated to enable the safe and successful delivery.

The rogue vehicle reporting is linked to the local enforcement team to ensure that compliance of bays is enforced.

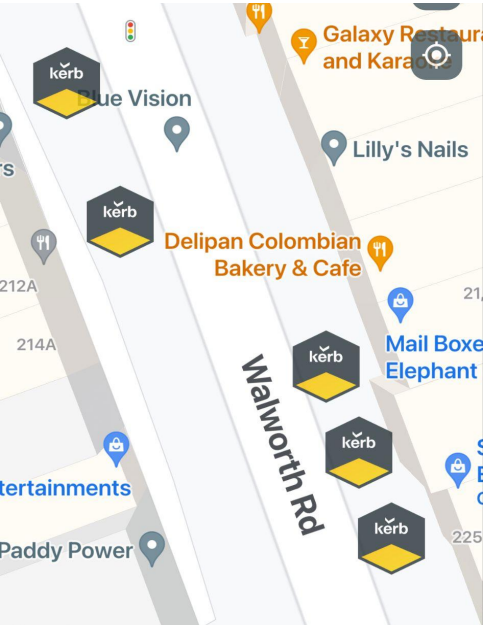


kerb™ Web application & dashboard





5 Permit Loading Bays in a high street setting



Kerb Dock (Southwark, Permit Loading Bay)



Walworth Road (Southwark, Permit Loading Bay)



The Swan (Virtual Loading Bay)



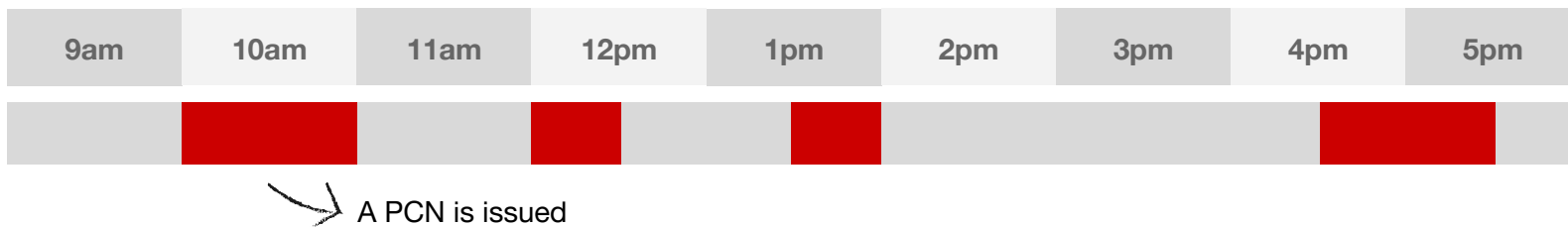
The Globe (Virtual Loading Bay example)

Digital Kerbside Utilisation Data

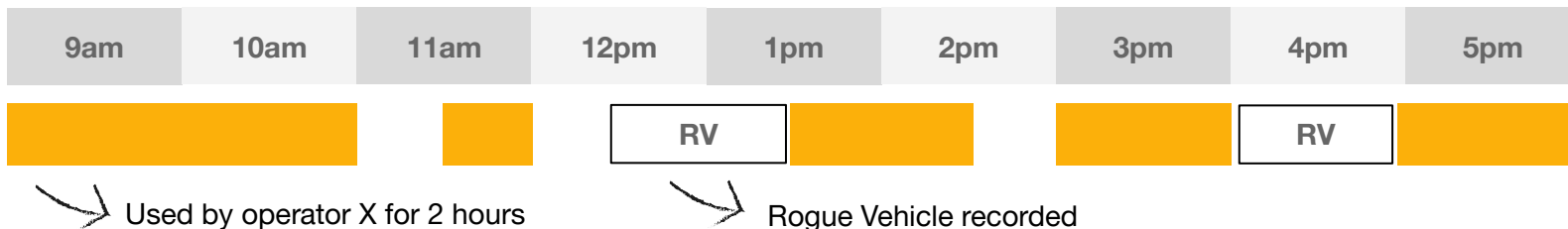
Digital platform enables accurate data collation for LAs on actual versus perceived use at kerbside locations



Current: only knowledge when a PCN is issued



With Kerb: Provides local authorities with data showing exactly when the bay is being used and by what operator





Council A



Council B



Private Owner



Councils can tailor their Kerb offering to freight operators.
Consolidate multiple demands from different spaces into one simple platform.

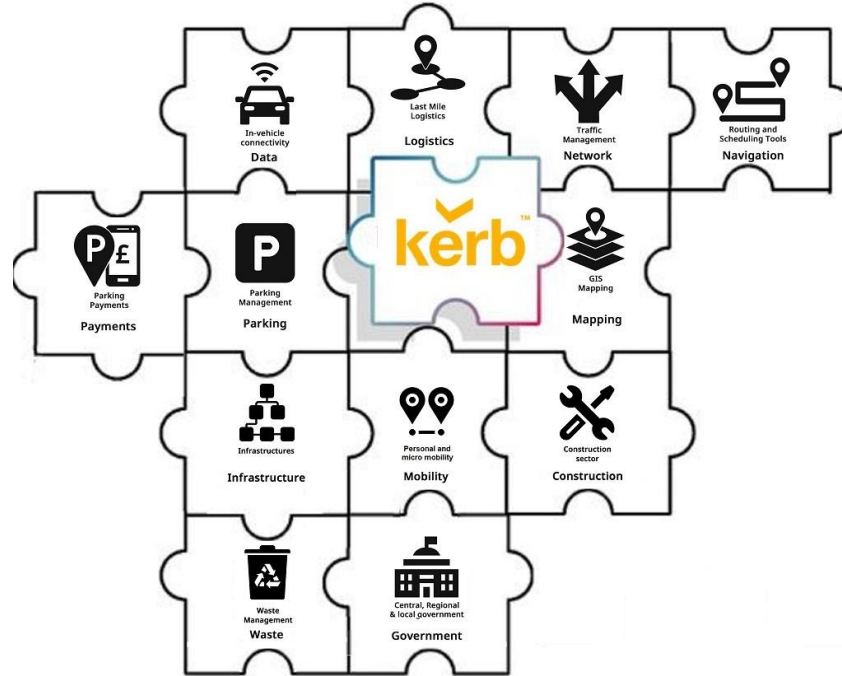
Operator

Operators delivering and servicing nationally across multiple councils.

Business

Visitor and Residents

Kerb® is the key jigsaw piece dynamically connecting the on and off-street ecosystem.





Grid Smarter Cities

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Delighted to see the King's Speech referencing the Automated Vehicles Bill, and in particular the requirement of Digitised Traffic Regulation Orders (DTROs). This will enable Local Authorities to speed up their deployment of digital kerbside management solutions such as Kerb® whilst building the capability for the connected fleets of today and the autonomous fleets of the future. **Grid Smarter Cities** looks forward to working collaboratively with the Government and colleagues from across industry to deliver the social, environmental and economic benefits this will undoubtedly unlock.

<https://bit.ly/3tXYJRE>



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1 repost



Department for Transport (DfT), United Kingdom

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- **Digitalise Traffic Regulation Orders (TROs).** Local authorities will be required to send the legal orders they make (for example, to set speed limits, close roads and designate parking bays) to a central publication platform. This data will be used to create a digital map of the road network to support the safe operation of self-driving vehicles. This will also help make parking easier for all drivers, providing better information like the location and availability of parking spaces, as outlined in the Plan for Drivers.



The **kerb** advantage

The benefits of implementing Kerb across Greater London was assessed in the 2021 **'Loads Easier'** report by global transport and infrastructure consultancy Stantec.



Reduce CO2 emissions
by **15,000 tonnes per annum**



Enables **21% more deliveries** by
improving operational
efficiency



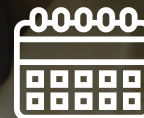
The scheme could
generate up to **£140 million in revenue** for
London per annum



Reduces freight, servicing
and delivery kilometres by
20 million per annum in
London



Equivalent to removing
12,600 cars off the road per annum



Saves over **3 million hours** in wasted delivery
driver time per annum

Questions?



Urban Freight

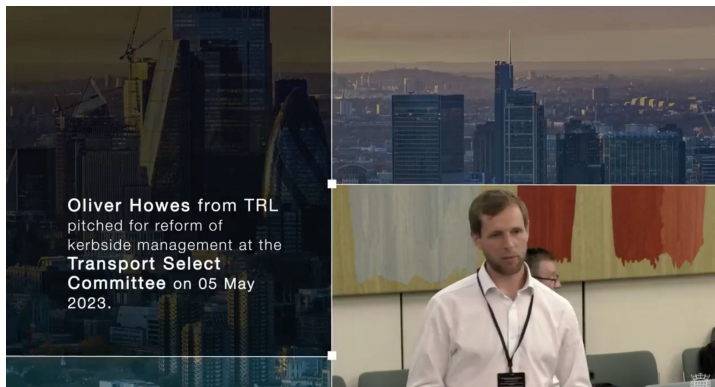
Toby Hiles, Strategic Partnerships Director
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Kerbside Management

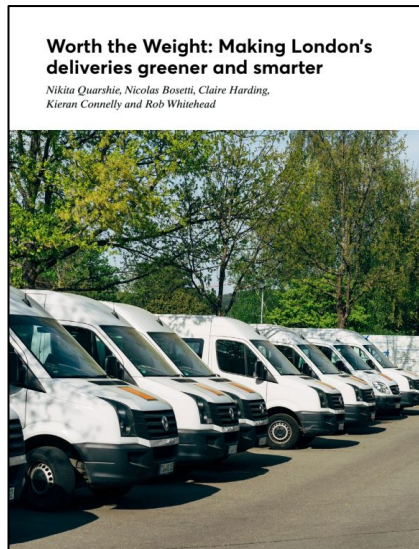
Chargerie

Leading the change: **Fostering innovation through thought leadership and advocacy for a greener city.**

Our intellectual influence and innovative thinking aligns with policies that **help shape and foster innovation**, making us one of the **key enablers of a sustainable and smarter cities** of the future.



[Transport Select Committee video, 2023](#)



[Worth the Weight, 2021](#)



[Loads Easier, 2021](#)

The Blue Posts Delivery Day Timelapse

