



# Mobility providers, maximizing operations

Improve asset efficiency and profitability  
with location intelligence



# What's inside?

Mobility providers face the same big challenges when looking to boost profitability: How to reduce costs and improve operational efficiency.

In a competitive landscape, providers that rise above these challenges can shape the future of urban transport, deliver effective, lower-cost services and scale activities to new cities, regions and countries.

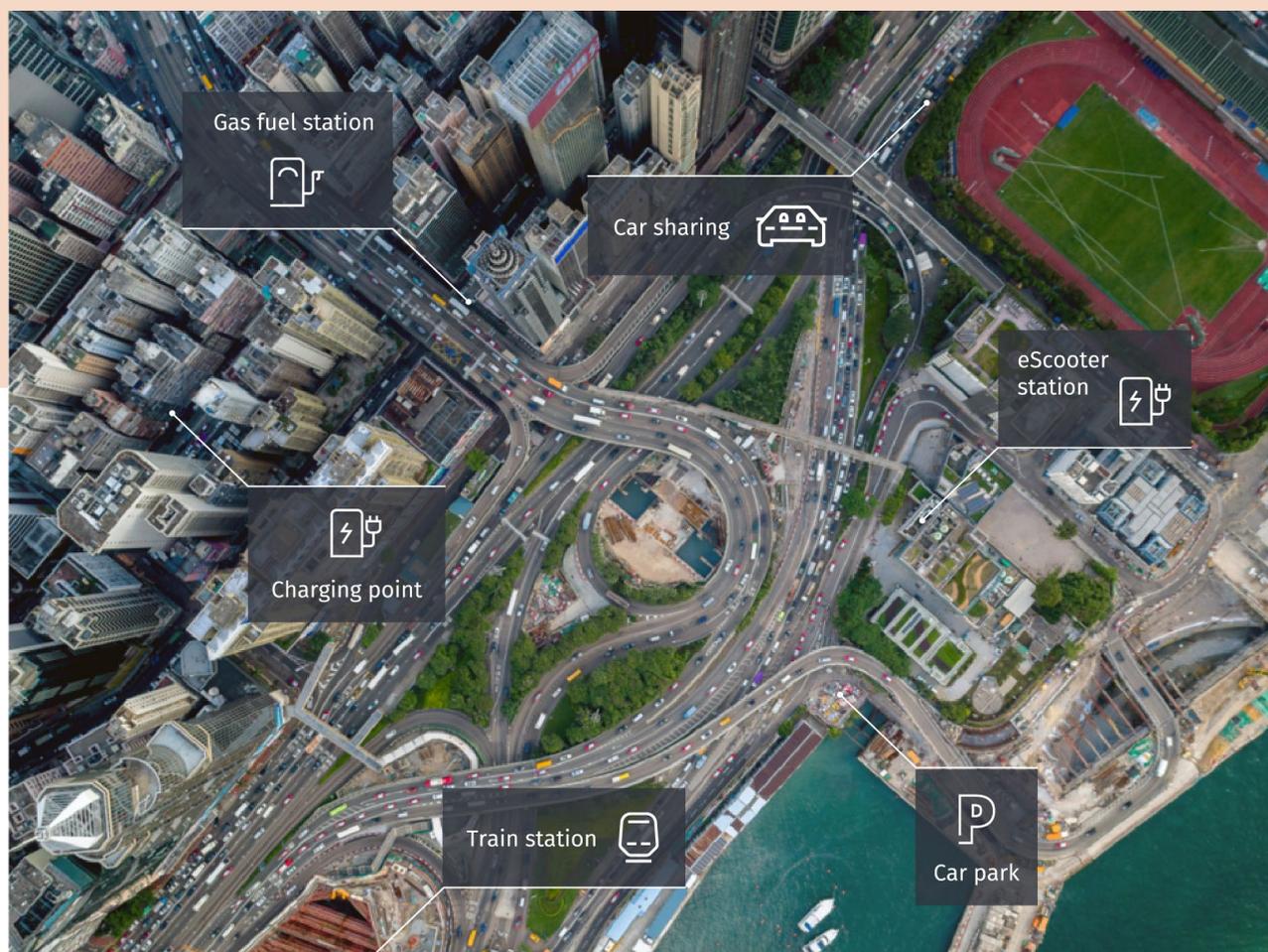
Vitally, they will also be able to supply simple, frictionless, intermodal travel and, in doing so, establish critical relationships with consumers.

In this eBook, we'll outline three significant opportunities for mobility firms to optimize operations with location technology and boost profitability.

<b>Everything in its right place</b>	3
A better view of the ideal operational zone	
<b>Smart distribution, better allocation</b>	7
More effective asset management	
<b>Efficient rides, every time</b>	11
Consistently assign the right driver	

# Everything in its right place

A better view of the ideal operational zone



Where to deploy? Figuring this out is a critical first step for mobility providers, whether they are operating in a new location, adapting to changing demand or expanding their services.

Providers need to work in a broad enough area to ensure sufficient coverage and meet consumer demand, while balancing this against the requirement to complement, rather than overlap with the public transport network. They also need to establish relationships with city authorities and create a sustainable business model that meets regulations and brings value to the urban environment in which they operate.

Overcoming operational challenges will enable providers to standardize and optimize processes. They can reduce costs and consumption, allocate assets more effectively and better support intermodal journeys. They can also speed up operations and, as a consequence, do it all in a profitable way.

This standardization also makes it easier for these companies to scale up globally.



# The case for location technology

By making use of HERE location technology, mobility providers can:

- Design sustainable operations that meet regulations and establish good relations with authorities
- Define a profitable operational zone, minimizing costs and offering full coverage to customers
- Identify high-demand areas to predict hotspots and assist smart fleet deployment
- Respond to city and consumer changes, adapt and scale accordingly
- Operate in areas of good cellular and GPS coverage for better connectivity and to grow services
- Complement existing public transportation options to expand operational areas
- Make intermodal journeys easier and boost customer satisfaction
- Evaluate new market opportunities globally with proven insights on venues, places and demand modeling



## Gain a better view of the operational zone, with HERE

With its high-quality location data, APIs and SDKs, HERE can help providers optimize daily operations with a greater understanding of their deployment areas.

**HERE Map Data** is a fundamental tool with highly accurate digital representations of the real world. Providers can make use of more than 1,000 map attributions for display and search, to produce data visualizations of the world, for localization to specific networks and to easily track and trace assets.

**HERE Transit** delivers valuable insights to help solve complex commuting problems. People

can choose the best routes and transit modes, then navigate easily between lines and platforms with detailed instructions. Applying the **Intermodal Routing API** allows developers to provide routes by combining three different transport modes - cars, pedestrians and public transit – with access to information on parking near transit stops.

**HERE Cellular Signals** helps predict network connectivity along a route and determine the streaming potential. It identifies signal strength to assist the prioritization of network investment and planning.



### How else does HERE help?

- **HERE Parking** is a service that makes finding a spot in advance faster and easier
- **HERE Geodata Models** pinpoints roadside objects and infrastructure, with sub-meter accuracy, for more precise demand modeling
- **HERE Map Tile API** delivers a base map with a range of custom overlays to support fleet management
- **HERE Postal Code Boundaries** enhances productivity with visual displays and data analysis
- **HERE Admin Boundaries** supplies a hierarchy of the admin structure, enabling search and rendering with global content layers providing polygonal boundaries



# The deployment

## Establishing operations in a city



### Set the operational zone

A ride-hailing provider analyzes likely demand in a city where it wants to offer services. It determines its operational zone and divides the city into working areas. It concludes 1,000 vehicles are needed.



### Complement existing services

The provider focuses on transit hubs connecting outlying neighborhoods to downtown. Via its app, it's easy for customers to plan simple intermodal journeys to the city. It assigns 50 cars to meet demand.



### Change deployment planning

A mall opens with a new transit hub connecting to unserved areas. The provider expands, adding new services, routes and directions to its app. Thirty cars are redeployed from other hubs and shopping areas where demand will dip.



### Scaling operations

As the city grows, the provider calculates that it needs 100 extra cars. They're deployed and tracked, helping to meet demand all over town, every day.



# Smart distribution, better allocation

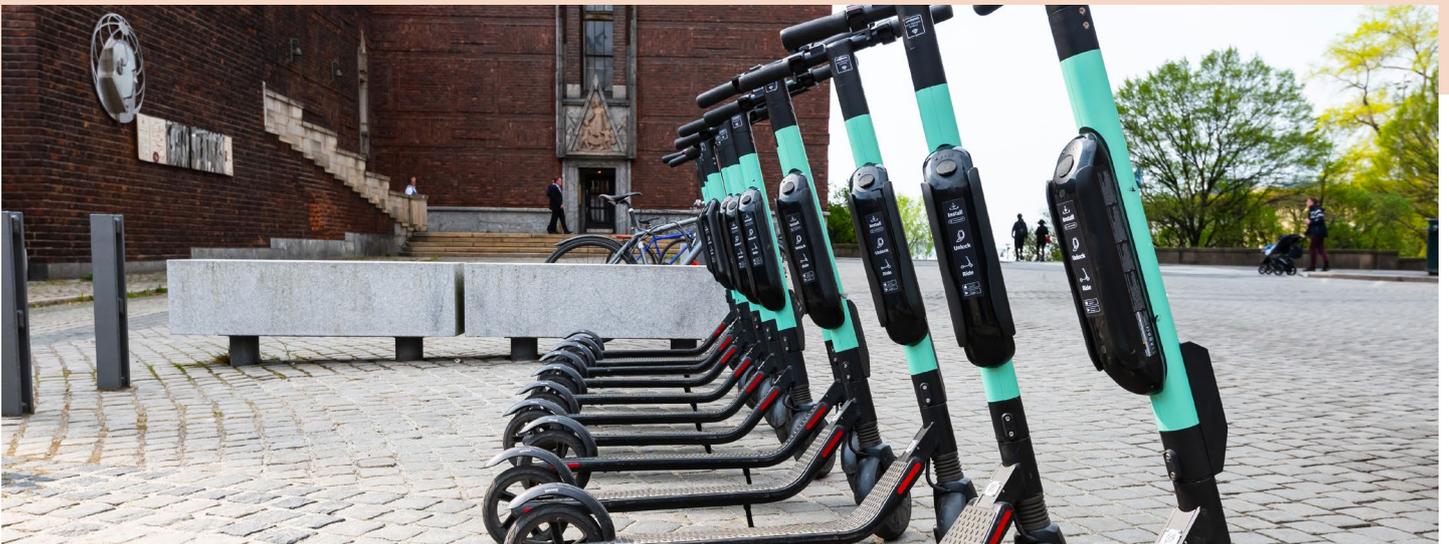
## More effective asset management

Intelligent fleet management is a mobility operator's most vital capability. If it can maximize asset utilization, that benefits both profitability and user satisfaction.

Much can be achieved through reallocation of assets in reaction to (and ahead of) real-time events. By not overserving areas with low demand, providers can deliver more dedicated services.

Mobility services need the flexibility to respond to the market. They do this with real-time information, asset tracking, positioning and post-trip analysis to learn from their experiences and plan better for tomorrow.

Supplying a highly dynamic service can have a huge impact on customer satisfaction as people get quick access to the rides they need and quicker journeys.



## Real-world advantages

With its location expertise, HERE helps to deliver the asset visibility needed to underpin those big steps toward operational efficiency:

- Know the precise position of assets
- Optimize maintenance and redistribution of eScooters/bikes and vehicle batteries
- Understand positioning in real time for accurate asset tracking
- Allocate assets based on user preferences and operational dynamics
- Provide routes based on smart asset allocation and customer collection
- Analyze driver behavior for safety compliance
- Lower costs, including minimizing asset idling costs
- Boost profits through improved asset utilization



# Understand how to allocate your fleet

In addition to its vital search, display and track and trace capabilities, **HERE Map Data** assists with advanced destination, routing, navigation and mobile asset management.

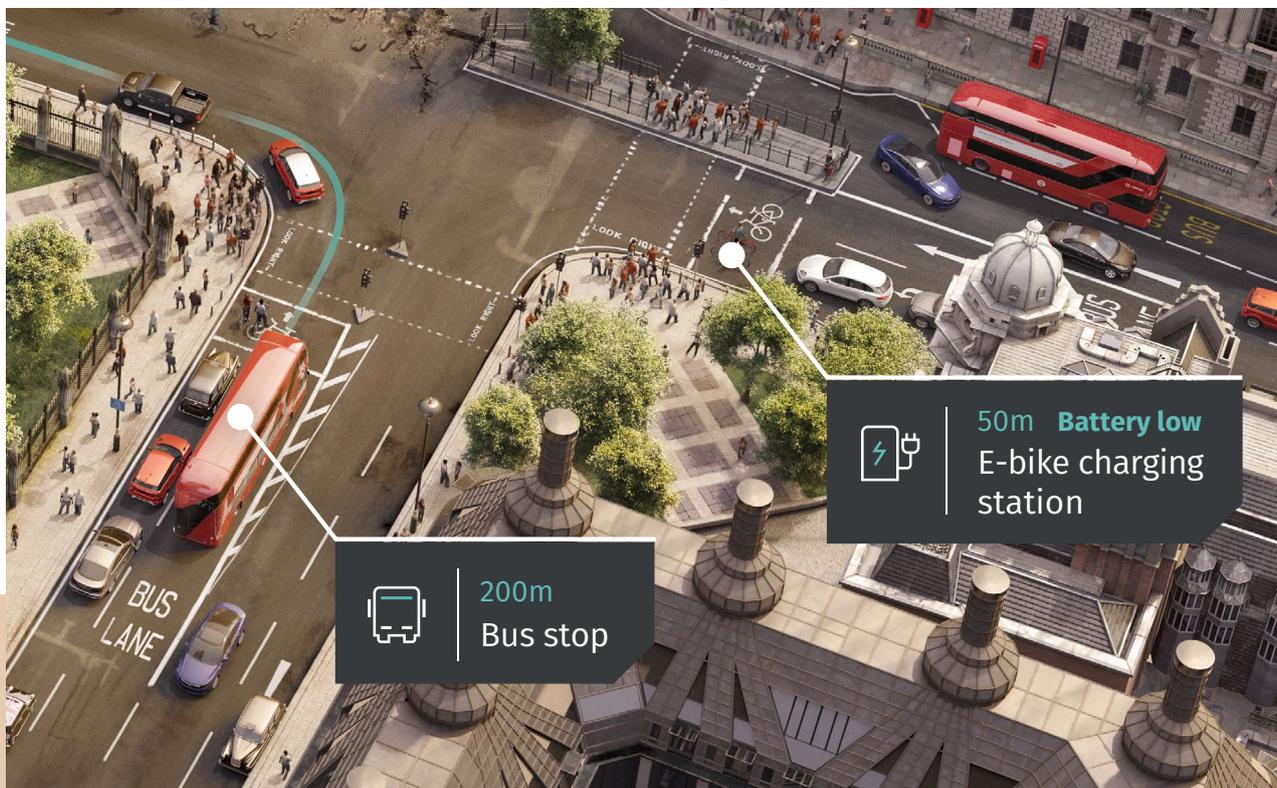
The **HERE Positioning API** enables providers to build applications that require location estimates based on radio network measurement data. The supported data includes 2G, 3G, 4G, and WLAN measurements.

**HERE Fleet Telematics** helps providers control fleet management, using advanced location algorithms. It makes it easy to match GPS traces to a road network, change geometries, modify road restrictions and more. Fleet operations can even add their own data into the mix.

**HERE Traffic** and **HERE Hazard Warnings** supply historical and real-time awareness of hazards to help re-planning based around congestion, road closures and maintenance.

## How else does HERE help?

- **HERE Routing** makes it easy to maximize routing for repair crews and asset redistribution
- **HERE EV Charging Stations** details points to repower shared vehicles and scooters
- **Point Addressing** from HERE facilitates faster arrivals when addresses are not in sequential order. This helps both with service delivery and maintenance
- **Areas & Boundaries** from HERE assists with the administration of post code boundaries for analytics reporting and zonal asset dispatch and management



# The changing city

## Preventing asset underuse



### Monitoring asset locations

With an overview of the whole city, a mobility provider can know how its assets are distributed and their exact location at any given time.



### Know where demand will be next

In the late afternoon through the evening, demand for rides in the business district will rise as people finish work and move to transport hubs and leisure venues.



### Move assets to busy areas

Demand analysis determines how many underused assets can be redeployed from overserved areas.



### Meet demand, ensure maximum asset usage

When people leave work, they use apps to book their ride home. As the right number of assets is already deployed locally, demand is met and costs reduced by having no vehicles standing idle.



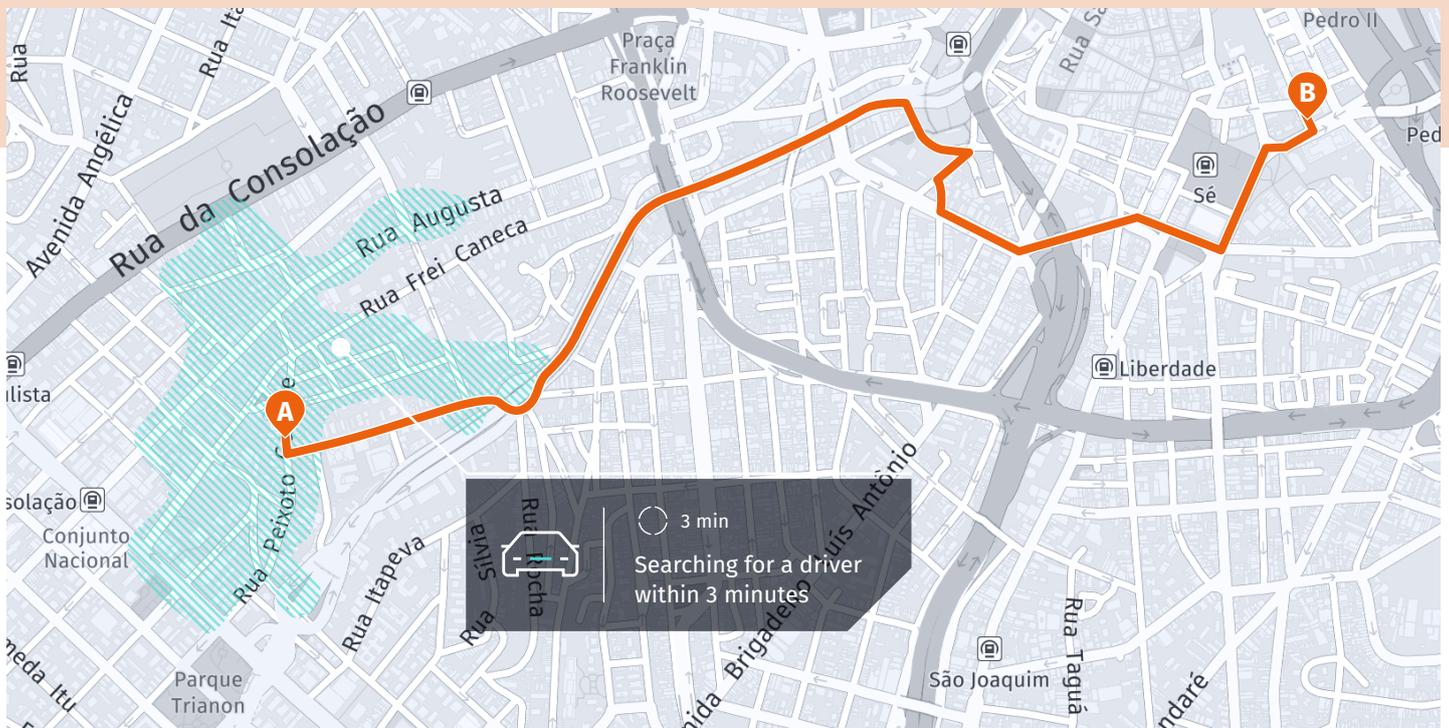
# Efficient rides, every time

## Consistently assign the right driver

Trips need to be distributed across all drivers while ensuring waiting times are kept to a minimum. The provider also needs to optimize by reducing fleet idling time.

Currently, most providers can't calculate the pickup stage and destination stage as a single

trip. The result is two sub-optimal journeys. Additionally, passengers often wait in unsafe or inconvenient pickup places. Despite having time to reposition, these bad locations can end up making the whole trip longer.



## Smarter routing

Providers that can establish real-time visibility of both vehicle and user locations can supply riders in an optimal way. This can include consideration of distances, pickup times and fuel consumption.

From a range of drivers, they calculate routes

to the pickup, onto the destination and assign the one offering the best ETA. The provider might even suggest the user moves to a new pickup point and route the driver accordingly, so the total journey time is reduced further.



## Operator gains

-  Increase the utilization of drivers
-  Lower overall travel times and prices
-  Avoid dangerous maneuvers for pickups
-  Improve the driver and consumer experience
-  Soften impact on local congestion
-  Reduce fuel consumption across a fleet
-  Help drivers complete more rides each day
-  Operate within city regulations
-  Increase safety with lanes and road hazard information



## Valuable local content, with location intelligence

Providers can use **HERE Isoline Routing** to identify drivers within a specified distance of a pickup. Using a polygon in mapping indicates reach in all directions around a given point by time, distance or fuel consumption. This helps the provider understand how many drivers are in range to provide an efficient pickup and, equally, the number of potential pickups that are within range of a specified driver.

The **Matrix Routing** algorithm optimizes journeys by accounting for traffic, transport mode and route preference. Routes are calculated between the location of different drivers, the pickup point and destination. The driver with the shortest ETA can then be assigned. Matrix Routing also supports synchronous multi-route requests:



- Order multiple destinations, so drivers don't go back and forth. Optimize both the distances traveled and time taken
- Make it easy to find the closest fuel and EV charging stations
- Calculate the nearest vehicle with the best ETA, when a user hails a ride

**HERE Places** offers a vast searchable POI database with context for a truer representation of the world. POIs from HERE are accurate and deliver meaningful, value-added information.

**HERE Places Footprints** adds a further layer of detail by assisting with understanding pickup points and destinations for locations in multi-tenant buildings:

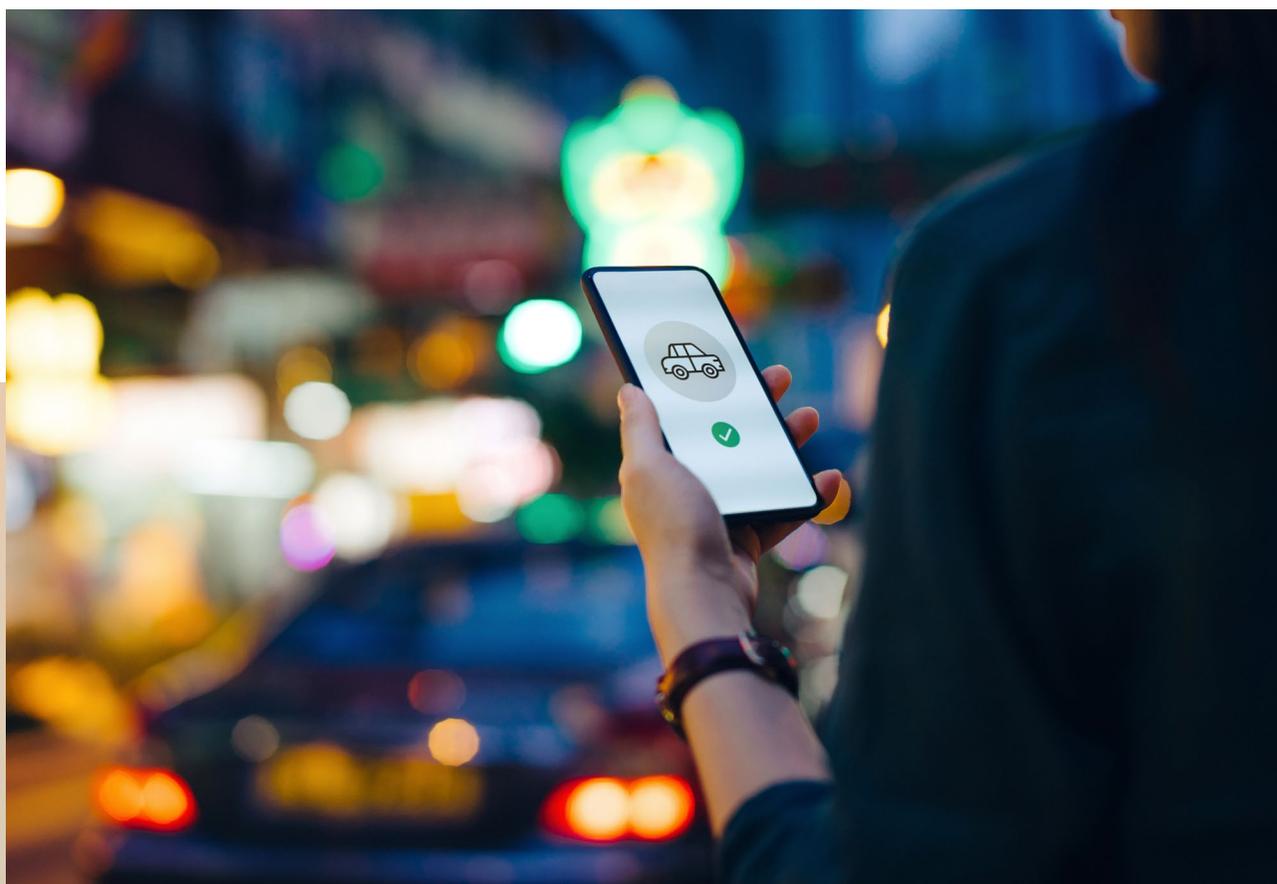
- Enhance analytics, place search, destination selection and navigation guidance

- Direct drivers to the right door by displaying exit names and numbers
- Use isoline routing envelopes to determine smart pickup locations along the route

Additionally, **Point Addressing** from HERE provides accurate location address data, while **Postal Code Points** uses a single, calculated midpoint to represent all addressees in a postcode.

**HERE HD GNSS Positioning** is a real-time service that provides pinpoint precision for pickup locations, while **HERE Venues** helps pinpoint locations and plot routes inside buildings.

Finally, **HERE Traffic** and **HERE Hazard Warnings** help with driver assignment through providing a fresh and detailed view of the road network.



## The rush hour trip

Send the right driver with smart routing and guidance



### After work

Betty wants to go for an early evening workout. From the curbside, she hails a ride.



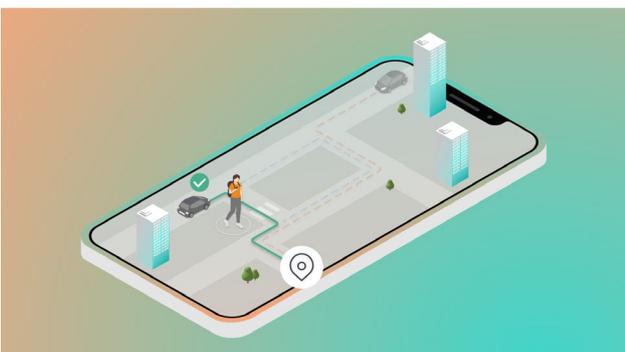
### Better driver assignment

Considering available drivers, the road network and traffic conditions, the app calculates all possible routes to Betty and her destination. The app assigns the driver with the shortest overall time.



### Cross the road

For a quicker trip that avoids the one-way system and an unnecessary driver maneuver, the app suggests moving the pickup point across the street.



### Arrive earlier

A new route is calculated, the driver offering the fastest and most fuel-efficient trip is assigned. Betty arrives at the gym before it gets busy. Speedy journeys like this help drivers serve more passengers every hour.



## You may also be interested in:



**How HERE and Verizon use video images for more accurate location.**

[CASE STUDY](#) ⇨



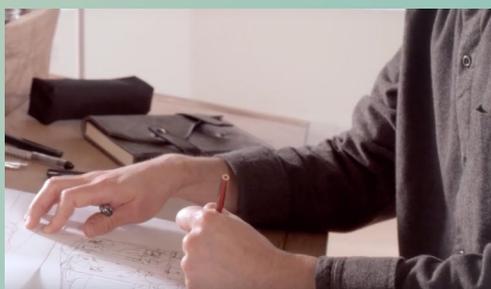
**How else do we help mobility operations?**

[SOLUTION](#) ⇨



**How location intelligence is transforming movement in cities.**

[GUIDE](#) ⇨



**Can mobility solutions solve social inequity in our cities?**

[BLOG](#) ⇨

## Want to know more about location-powered mobility operations?

[Get in touch](#)

### About HERE Technologies

HERE, a location data and technology platform, moves people, businesses and cities forward by harnessing the power of location. By leveraging our open platform, we empower our customers to achieve better outcomes – from helping a city manage its infrastructure or a business optimize its assets to guiding drivers to their destination safely. To learn more about HERE, including our new generation of cloud-based location platform services, [360.here.com](#) and [here.com](#).