

# HERE 101 Mapping Solutions for Business Success

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# Welcome to today's webinar

## How can I ask a question?

Chat feature can be used to type questions

# Can I view this presentation after the session?

- Yes, the webinar is being recorded
- The recording and slides will be available after the presentation

## **Additional support post-webinar:**

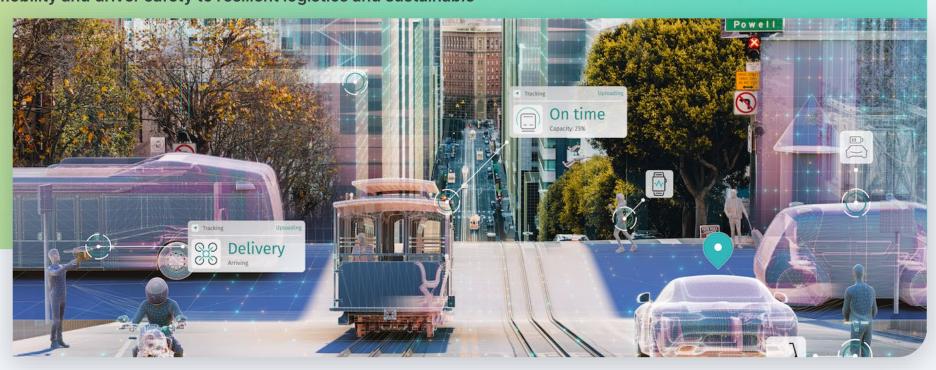
- Dedicated Mapping Support Team
- HERE to Help Fridays

# We're the world's leading location data and technology platform.\*

We provide data and software that helps our customers and partners build better solutions, better services and a better future.

The HERE platform is a location toolkit with which you can upgrade everything from urban mobility and driver safety to resilient logistics and sustainable

operations.



\*According to <u>Omdia</u>, <u>Counterpoint Research</u> and <u>Strategy Analytics</u>, 2022-23



# Today

#1 location data and technology platform





## **HERE** is the leader

According to Omdia, Counterpoint Research and Strategy Analytics

Ranked #1 in completeness across the industry Outranking Google, Mapbox, TomTom and Apple

# A platform operating at scale

35+

years of experience in map-making and location technology

1.3k

enterprise customers – from automakers and tech leaders to global logistics and telecoms brands

550k
direct developers



153bn

API calls per month

40m

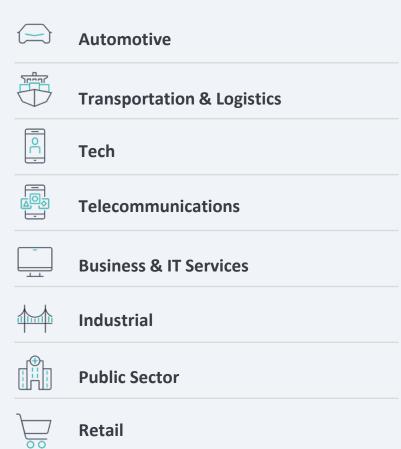
vehicles supplying real-time probe and sensor data

24/7

customer access to map content; update visibility for all data products within 24 hours via UniMap

Our platform addresses major market challenges across several industries

# **Industries**



# **Markets**





**Customers and partners like ...** 

DESCARTES"
HOLCIM

**Glympse**<sup>®</sup>



#### ... use the HERE platform to improve



Tour planning



Route optimization



Last mile efficiency



Driver & customer apps



# Build better supply chain solutions with HERE.

Leverage the HERE platform to give customers unprecedented visibility of shipments and assets – to keep yards, warehouses and goods moving efficiently.



**Customers and partners like ...** 



le@gistics



SIEMENS ... Healthineers

#### ... use the HERE platform to improve



Asset tracking



Shipment visibility



Warehouse & yard management



# **Build better driver** experiences with HERE.

The HERE platform helps OEMs develop the digital cockpits that customers want and expect – creating more differentiation in the era of the electric, software-defined vehicle.



#### **Customers and partners like ...**



**SCANIA** 













#### ... use the HERE platform to improve



Electric vehicle services

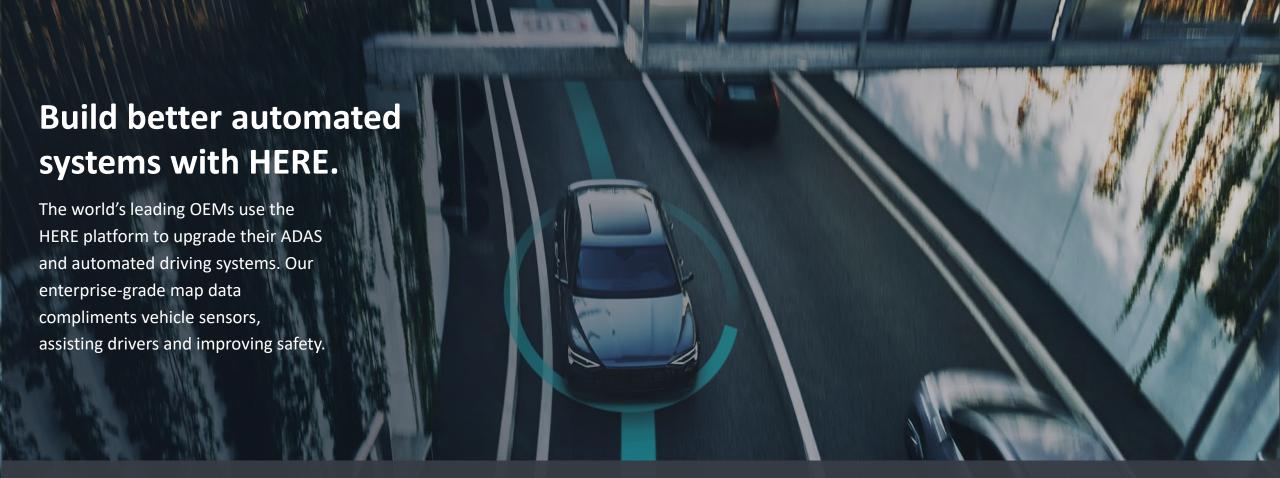


Connected vehicle navigation



Connected vehicle services





**Customers and partners like ...** 







#### ... use the HERE platform to improve



Road safety & awareness



**Advanced Driver Assistance Systems** (ADAS)



**Highly Automated** Driving (HAD)



# **HERE Differentiating Factors**

01

#### **Benchmark**

HERE provides the most industry specialised solutions

02

## Quality

Better quality of content & co-operation models

03

## **Flexibility**

In pricing models & contract

04

#### **Price**

Lower year-on-year investment

05

#### Invest

Engagement model for a strategic partnership

06

#### Accelerate

HERE is ready to deliver and to accelerate!



# **Competitive strengths**

#### The strongest differentiating functionalities



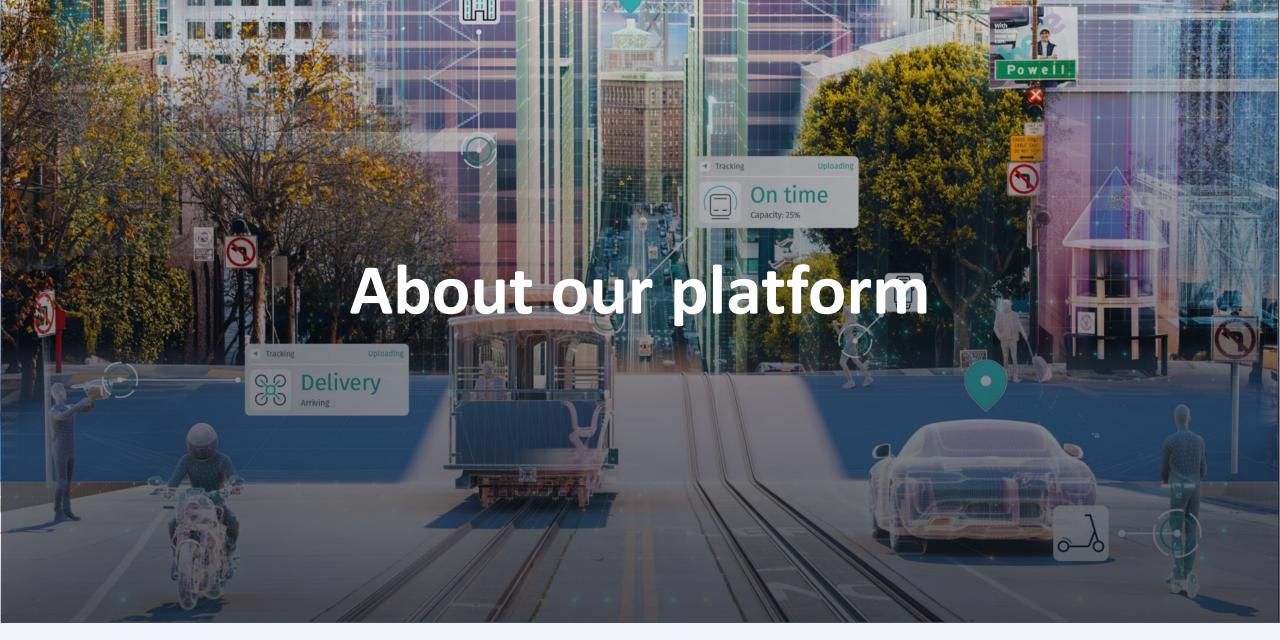
- Truck Routing and Navigation
   (Custom Speed Profiles for light, medium and heavy trucks)
- EV charging aware Routing
- Toll cost calculation (Extensive Global Coverage)
- Isoline Routing (Longest isoline, reverse Isoline)
- Waypoints Sequencing (largest number of 150 waypoints)
- Matrix Routing (supports up to 100M routes)
- Route Matching and Map Attributes (Batch processing for large GPS traces)
- Fleet map Schema
- Self-hosting deployment (Available for all essential location services)

## Capabilities enabling true B2B partnerships

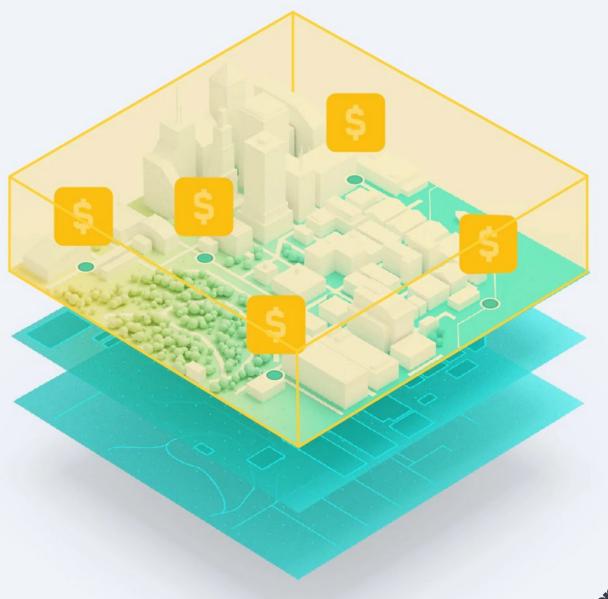


- Flexibility to leverage both Services and Content
- Transparent license models
- Data privacy, ownership and security
- Configurability and support for private data
- Global offering with consistent APIs
- Technical customer support
- Most comprehensive service offering on the market

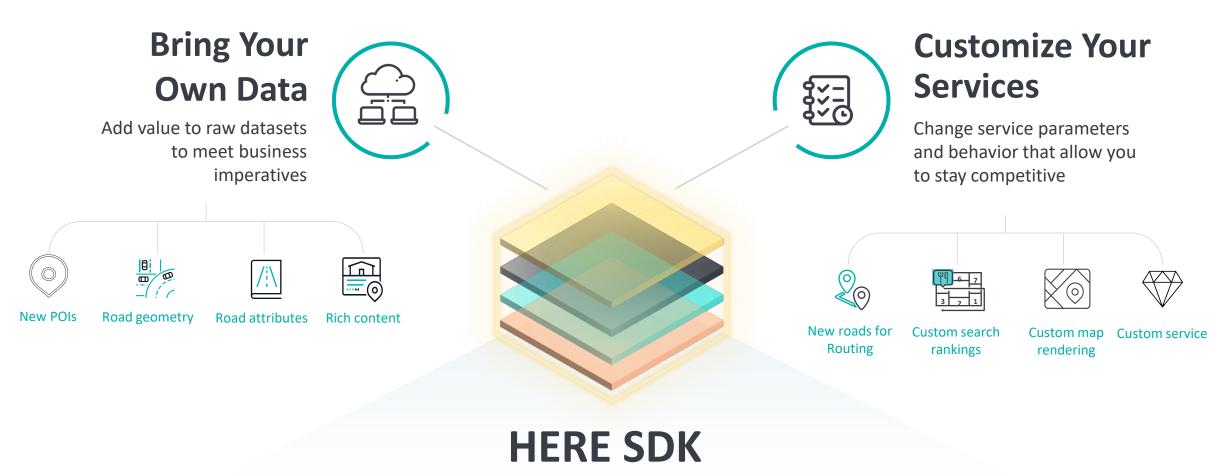




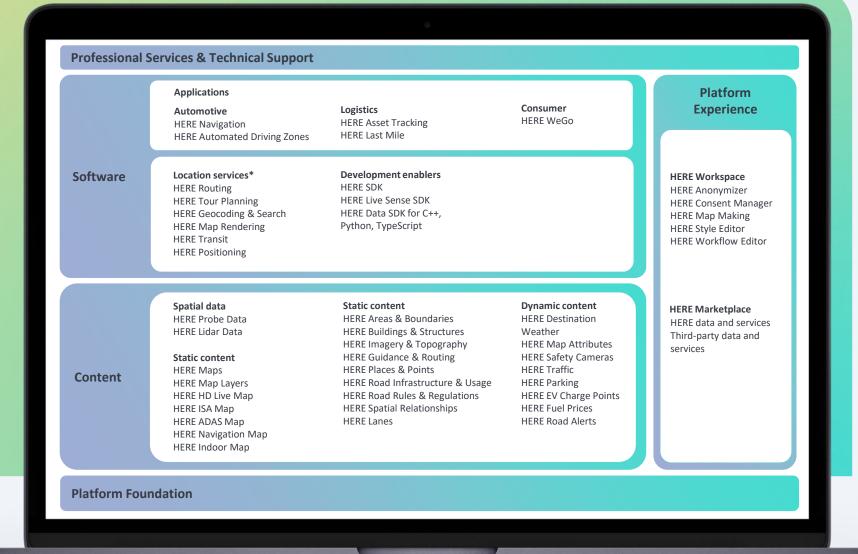
**Build better with all the** enterprise-grade map data, software tools and control you need in one flexible location platform.



# Moving towards a future of data and service enhancement and customization with BYOD and BYOS

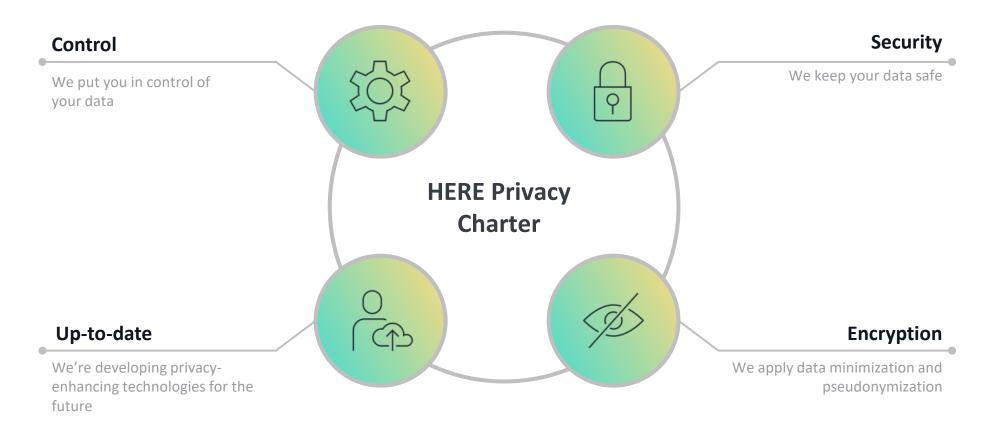


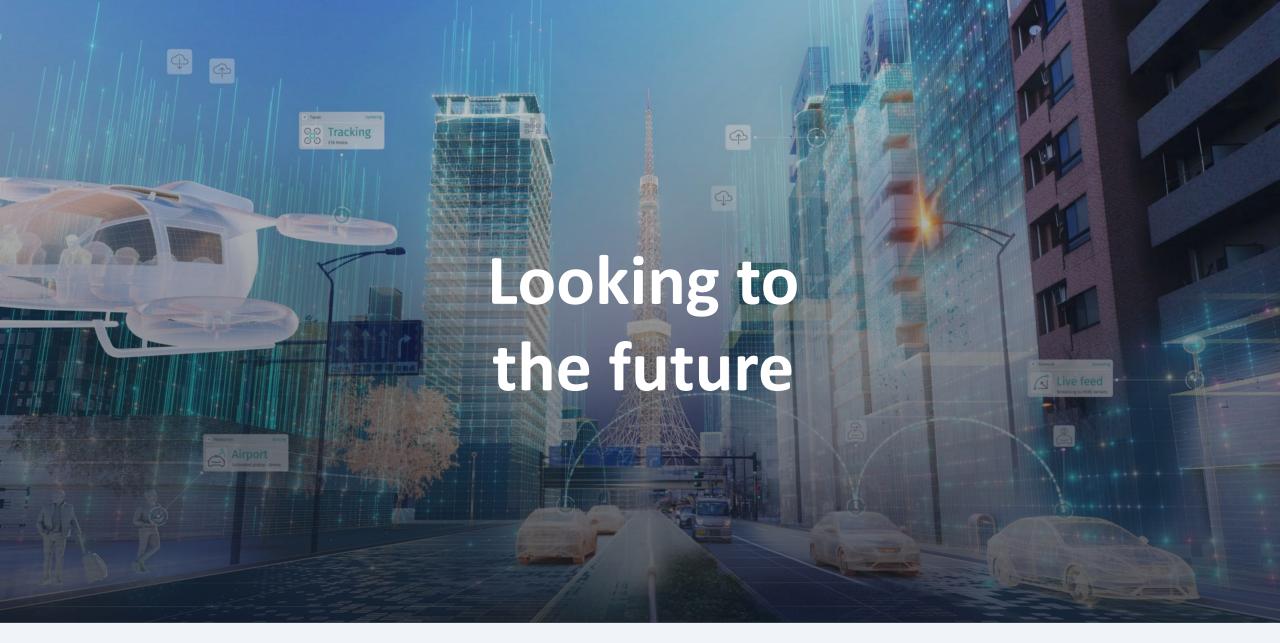
# HERE portfolio architecture



# **Built with privacy in mind**

We go beyond mere regulatory compliance and make privacy an integral part of our corporate culture





# A new era of mapmaking

2023

# **Introducing UniMap**

HERE's new automated mapping system revolutionizes how maps are created, updated and used.

UniMap rapidly fuses large quantities of data from diverse sources – including vehicle sensors, industrial lidar and satellites – into a fully aligned and unified global map, stored in a single environment.





# UniMap powers emerging use cases

2023

Nextgeneration in-vehicle experiences



Highly automated driving



Predictive logistics



EV services

Private mapping





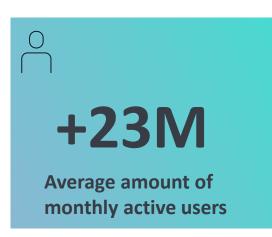
# **About HERE SDK**

## **HERE SDK**

**Product summary** 

A set of programming interfaces that give access to a rich portfolio of location features such as mapping, routing, geocoding, search, traffic, transit, indoor and navigation

- Three separate standard variants (Lite, Explore, Navigate)
   targeting Android and iOS
- Builds on the core set of HERE Location Services and uses consistent concepts and terminology
- Released bi-weekly to all customers product roadmap is providing constantly relevant value to drivers throughout the program timeline
- Allows for cross platform development for iOS and Android, from a single code base, with Flutter









## **HERE SDK variants**





**Explore Edition** for smooth map experiences and highly performant map rendering for high-end devices



Navigate Edition for accessing all the features that come with the Explore Edition + turn-by-turn navigation



Lite Edition for basic mapping use cases on devices w/limited ROM capabilities



# **HERE SDK** as a part of the HERE Environment

HERE SDK seamlessly integrates with the HERE Ecosystem

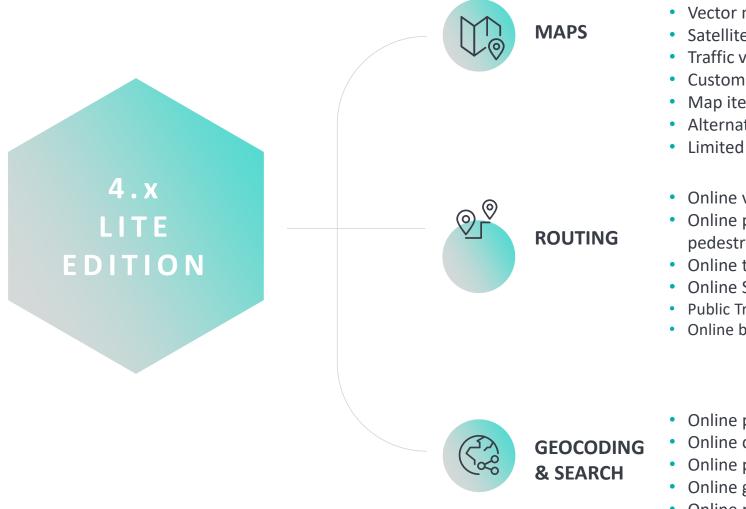




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# **Product variants**

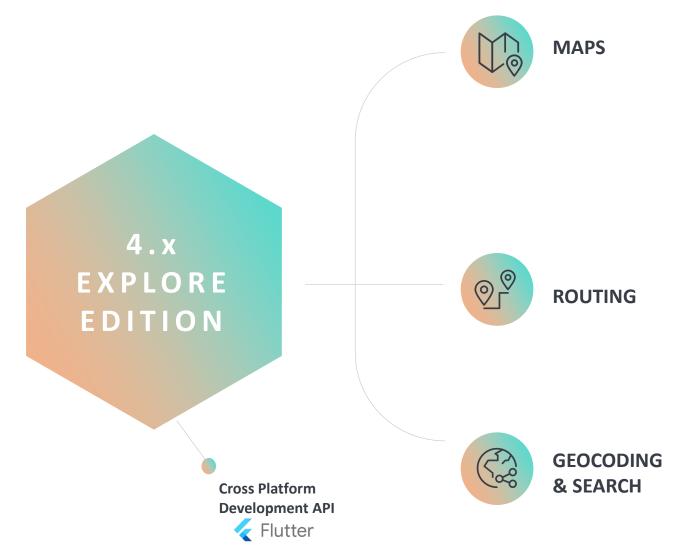
# **Key features: HERE SDK 4.x- Lite Edition**



- Vector map tiles
- Satellite imagery
- Traffic vector tiles
- Custom raster map tiles
- Map items (e.g. lines, markers)
- Alternative schemes day, night
- Limited Map Customization tool
- Online vehicle routing
- Online pedestrian routing using pedestrian specific walkways
- Online truck routing
- Online Scooter routing
- Public Transit routing
- Online bicycle routing
- Online place search
- Online category search
- Online place information
- Online geocoding
- Online reverse geocoding
- Multi-language support



# **Key features: HERE SDK 4.x– Explore Edition**



- Vector map tiles
- Satellite imagery
- Traffic vector tiles
- Map items (e.g. lines, markers)
- Alternative schemes: day, night, hybrid
- Map customization tool
- Political views
- Custom raster map tiles
- Camera and map item animation
- Online vehicle routing
- Online pedestrian routing using pedestrian specific walkways
- Online truck routing
- Online Scooter routing
- · Public Transit routing
- Online bicycle routing
- Online place search
- Online category search
- Online place information
- Online geocoding
- · Online reverse geocoding
- Multi-language support



# **Key features: HERE SDK 4.x – Navigate Edition**

- · Online navigation for vehicles, Trucks, Scooters & pedestrians
  - Lane assistance
    - Signposts
- Commercial Vehicle Regulations
  - Junction views



- Search: POIs & Geocoding
- Vector maps rendering
- Routing: Passenger cars & EV, Trucks, 2wheelers, Pedestrian Q4 2022

**OFFLINE** 

Region based Map Loader



**MAPS** 

- Vector map tiles
- Satellite imagery
- Traffic vector tiles
- Map items (e.g. lines, markers)
- Alternative schemes: day, night, hybrid
- Map customization tool
- Political views
- Custom raster map tiles
- Camera and map item animation



- Camera warner
- Truck restrictions Environment

  - School zone Q3 2023



**ALERTS** 

4.x NAVIGATE **EDITION** 

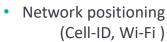


**ROUTING** 

**GEOCODING** 

& SEARCH

- Online vehicle routing
- Online pedestrian routing using pedestrian specific walkways
- Online truck routing
- Online Scooter routing
- Public Transit routing
- Online bicycle routing



- HD GNSS
- Vehicle Dead Reckoning



**POSITIONING** (Android Only)

**Cross Platform Development API** 





- Online category search
- Online place information
- Online geocoding
- Online reverse geocoding
- Multi-language support



HERE SDK

# Product Use Cases Transport & Logistics

# Why choose HERE SDK for your Fleet Solutions

A complete solution to your

#### **Global location DNA footprint**

Ranked as the #1 location platform by multiple analysts given its data completeness and accuracy

#### Offline/Edge/Multi - Cloud

In case of no online connection, there is offline capability to support you until an online connection is available.

#### **Back End Support**

Reliable foundation of shared economics for The Alliance, as HERE's Platform is built to **complement users' value chain** 



# Visualisation and Multi-modal Routing

Design

#### Data ownership & sovereignty

**Neutral** platform that provides its partners complete access and **control** of their data and customer relationships

#### Privacy by design

Privacy-by-design ensures highest level of data **privacy** and security for customers and partners



# **Enabling various market and use cases**



Truck Routing EV Routing



Matrix Routing
Waypoints Sequence
Tour Planning



Geocoding and Reverse Geocoding Geofencing



**Fleet Map** 



Offline Navigation HERE SDK



Route Matching Map Attributes

# **Fleet Management**



# Route Optimization

Calculate large number of routes between multiple locations



# **Driver facing Applications**

Offline truck navigation



# Commercial Vehicle Visibility

Monitor your vehicle on fleet map



#### Driver & Job Analysis

Capture illegal maneuver, driver rest time and overall behavior with Route Matching

A complete set of Truck enabled routing improves ETA and efficiency

Increase Fleet Efficiency

**Reduce Cost** 

**Meet SLAs** 

Reduce CO<sub>2</sub>







#### **Traffic enabled routing**



Matrix Routing
Waypoints Sequence
Tour Planning



Geocoding and Reverse Geocoding Geofencing



**Isoline Routing** 



Route Matching Map Attributes

# **Mobile Workforce Management**



### Job Planning

Calculate large number of routes between multiple locations



### Real – Time Job Management

Dispatch mobile employees to new job



### Vehicle Visibility

Monitor your vehicle on map and use Isoline Routing for Job dispatching



# Driver & Job Analysis

Capture illegal maneuver, driver rest time and overall behavior with Route Matching

A complete set of routing capabilities improves productivity and efficiency

Increase field worker efficiency

**Reduce Cost** 

**Meet SLAs** 

Increase employee satisfaction







Truck Routing
Traffic enabled truck
routing



**BYOD** 



**HERE SDK** 



Geocoding and Reverse Geocoding Geofencing



**Fleet Map** 



Route Matching
Map Attributes – Speed
Limits, Truck POIs

# **Supply Chain**



# Dynamic re-planning

Re- plan your journey on the move with RT traffic enabled routing



# **Shipment Visibility**

Track your shipment ETA on Fleet Maps



### Yard Mapping

BYOD to map your private sites and enable search & routing services

Unique capabilities that allows you ensure data privacy while optimizing supply chain

**Optimize Cost** 

Increase Asset
Utilization

**Meet SLAs** 

Increase Productivity







Traffic enabled routing
EV Charge Aware Routing
Predictive Routing
Intermodal Routing

Explore nearby Places, By Category

**Search POIs along the route** 



Display rich, trusted information about a place

Interact with places "get me there!"

# In – Vehicle Integration



Search Places & POIs

Enhanced search capability while driving



Intermodal Routing

Park & Ride allows a seamless journey experience

A complete set of search and routing capabilities improves overall driving experience

Stress- free Driving

**Ensure Driver Safety** 

**Enhance customer satisfaction** 







#### **Traffic-enabled routing**



#### **Matrix Routing**



Geocoding and Reverse Geocoding Geofencing



Search



Route Matching Map Attributes

# **Vehicle telematics**



Roadside Assistance Service



**Emergency** service



Concierge services



Stolen vehicle tracking

Identify customer/vehicle location and dispatch according resources based on reachability using Matrix Routing or Isoline Routing in combination with Search.

A complete set of Traffic enabled routing improves ETA and efficiency

Increase customer satisfaction

Increase efficiency

**Meet SLAs** 

**Reduce CO<sub>2</sub>** 





## **Key Differentiators**



**Isoline Routing** 



Search



**Geocoding Reverse Geocoding** 



**HERE SDK** 



Pedestrian Navigation
Dynamic Car Navigation

## Mobility (Web & Mobile)



## Pre- Trip Planning

Plan your trip ahead of your journey with multi-modal Routing



### Find the Closest Car

Enable locating the closest car/taxis with the help of Isoline Routing



#### **Journey Planning**

Optimize your journey experience with dynamic navigation & detailed turn-by-turn instructions



### Post Trip Analysis

Capture overall driver behavior with Route Matching

A comprehensive set of location services and SDK for improved mobility experience

**Stress- free Driving** 

**Ensure Driver Safety** 

**Enhance customer satisfaction** 





## **Key Differentiators**



**HERE SDK** 



**Search & Geocoding** 



**Map Visualization** 



**Offline Experience** 



Dynamic Truck & Car Navigation

## **Mobile Applications**



#### Places & Address Search

Enhanced search capability while driving



### **Navigation**

Offline navigation



#### **Journey Planning**

Optimize your journey with dynamic navigation & detailed turn-by-turn instructions



## Location Based Advertising

Provide location specific advertising with Search & Geocoding

A unique set of location services enabling several location based mobile solutions

Increase Brand Value **Reduce Cost** 

**Meet SLAs** 

**Reduce CO<sub>2</sub>** 





## **Key Differentiators**

## **Finance and Insurance Services**



Route Matching Map Attributes



**HERE SDK** 



## Driving behaviour Analysis

Understand roads driven, capture illegal maneuver, speeding with Route Matching and Map Attributes



## Driver facing Applications

Navigation and driver coaching

A unique set of location services enabling usage based insurance solutions

**Improve safety** 

Incentivise safe and economic driving

**Reduce CO<sub>2</sub>** 







## **Customer challenges**



Minimize costs / minimize distance travelled / minimize emissions



Maximize effective use of available driver hours



Align fleet structure with mix of activities – including height /weight /width/emissions restrictions plus the terrain covered and driving conditions (e.g., Desert/Arctic routes)



Use accurate address data to improve predicted ETAs / meet customer KPIs /SLAs



Alleviate the stress related to trip completion on current battery charge and live and dynamic traffic updates



Gain insights into the road conditions to improve productivity



Enhance customers' experience to drive adoption and new user acquisition



# Location Services enable new opportunities in multiple industries and markets







Mobile Workforce Management



In-vehicle Integration

Vehicle Telematics

Mobility

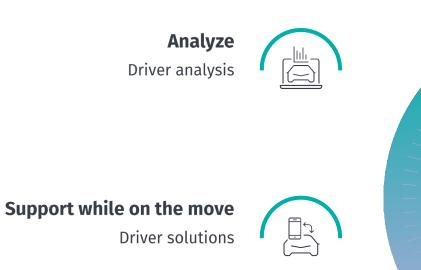
Marketing & Sales

Finance and Insurance Services



## The four key phases those markets have in common

Our products enables inter - connected opportunities to upsell/cross sell across the operational cycle







#### Plan in advance

Finding locations
Route & process optimization



#### Monitor while on the move

Visibility on assets and operations status

Dynamic re-planning





HERE Location Services are a rich set of Application
Programming Interfaces (APIs) and Software
Development Kits (SDKs) that enables businesses
across industries and markets to integrate location
functionalities into their web and mobile applications



- A modular cloud services that allows deployment across multiple screens and OS
- **Flexible and scalable:** HERE location services support any customer size and any data traffic in any region, all supported by strong Service Level Agreements
- Provides **full control over data security** without compromising on what's best for their business by offering:
  - Cloud Environment: Services hosted by a 3<sup>rd</sup> party i.e., Azure
  - **Self-hosting:** A wide range of services can be run on your own server
- HERE Location Services are fueled by the most comprehensive, rich and fresh location data enabling business optimization and growth within fleet management, supply chain, electric mobility, connected vehicles and automated driving.

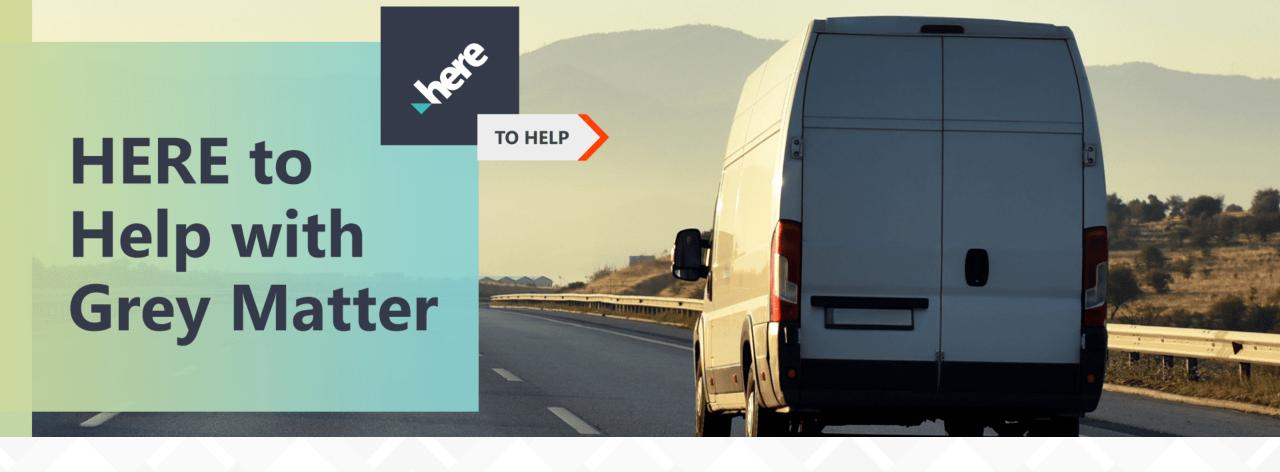




Grey Matter is a software reseller and cloud service provider devoted to developers and technology-led companies. We're known for our quick, accurate and impartial advice.

## **Additional support post-webinar:**

- Dedicated Mapping Support Team
- HERE to Help Fridays



# Bring us your technical questions and we'll get you the answers

Email us and we'll match your use case to the appropriate HERE Technical Expert for a 30-45 min. one-to-one session.

Our goal is to help deliver timely and effective resolutions and recommendations to enable you with the support you need when you need it. That's the Grey Matter difference.

Book your HERE to Help session today! >>

# **Our Grey Matter Mapping Team**



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