



The Road to the Future

How **HERE Technologies on AWS** addresses
jobs to be done in the automotive industry



Driving on data

The way we drive, and ride, is changing. Modern automotive solutions like connected cars, electric vehicles (EVs), and autonomous vehicles (AVs) are not “the future” but a very real part of today’s world. For example:

- **Connected cars** stream telemetry data that provides manufacturers insights into vehicle health and inspiration for future R&D.
- **Electric vehicles** generate telematics data related to battery health, remote diagnostics, and even predictive maintenance.
- **Autonomous vehicles** transform logistics and daily life, like driverless deliveries (think: food takeout and packages) and rideshare services.

The intersection of data and technologies like AI enables innovation and scalability previously out of reach.

In this guide, we’ll explore key automotive trends and jobs to be done, from optimizing operations, to leveraging telematics data from connected cars, to driving responsible innovation, and show how HERE Technologies can help.



Connected cars



Electric vehicles



Autonomous vehicles

Job #1: Optimizing operations

For greater efficiency and security

Let's consider operations. From planning to manufacturing to release, there are many checkpoints along the road that could work more efficiently and effectively. Rather than identifying these opportunities manually, automation and AI can accelerate the process—helping teams drive measurable change, faster.

Consider an AV manufacturer that leans on the internet of things (IoT), data analytics integrations, and machine learning. Together, these technologies enhance the operational efficiency and safety of the software-as-a-service solutions for truck fleets.

Or look at another EV company that meticulously optimizes its operations to handle edge cases in real-world driving. Its cloud-based tech stack, managed across multiple clouds, ensures it can ingest and process data at scale and with high availability. The company also leverages AI, deep learning, and computer vision for advanced 3D detection. And security is never lingering in the rear-view mirror. The company's cloud infrastructure team has established processes and systems for robust authentication and incident response, helping safeguard data and operational integrity.

These efforts go beyond productivity for its own sake. Automotive companies that embed AI and generative AI into core operations, like manufacturing and product design, can reduce costs and unlock significant returns on investment. According to Boston Consulting Group (BCG), companies can reduce costs by 8–12% and achieve ROI of 10–15x in under three years.¹ That's real business torque.



Job #2: Using data

To elevate the customer experience and sharpen your competitive edge



Data is the key to unlocking everything from smarter decision-making to next year's vehicle designs. Telemetry data, for example, provides automakers with insights into current features, fuels future innovation, and enables proactive planning for safety and predictive maintenance.

One U.S. automaker is integrating cutting-edge technologies to deliver personalized services tailored to modern consumer expectations. Its connected cars generate real-time data that can be analyzed for insights used to improve vehicle performance.

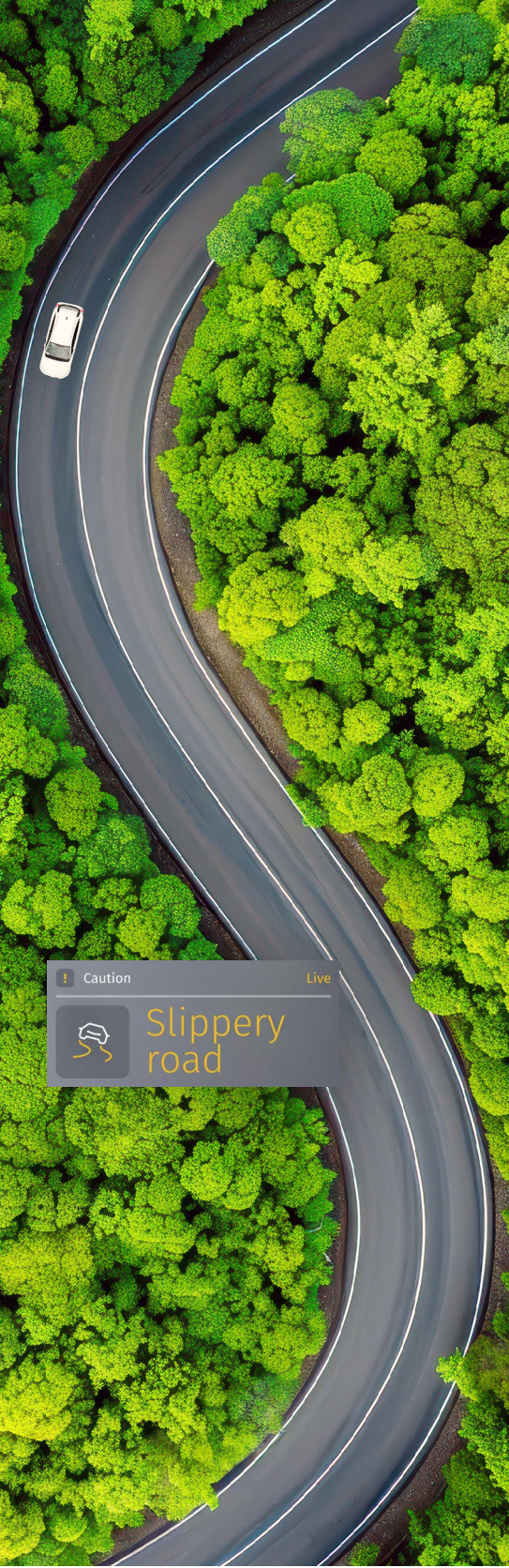
That's a solid start—but it's just first gear when it comes to the potential of data in automotive innovation. According to McKinsey,² "OEMs can expect average take rates of up to 60% for connectivity features, if packaged and priced well."

What's more, personalization can drive real results. According to a Blue Yonder survey:

- **43% of global car buyers** consider personalization options "extremely" or "very" important.
- **92% are willing to pay extra** for personalized features
- **Of those, 38% open to paying 6–10% more.**

Equipped with rich insights, automakers can deliver personalization—and capture new profit opportunities.

2 Source: <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/car-connectivity-what-consumers-want-and-are-willing-to-pay>



Job #3: Building responsibly

For the future of mobility

Responsible automakers prioritize safety for all—from drivers and passengers to pedestrians—throughout the production and release lifecycle. One automaker develops EVs and AVs on a sophisticated tech ecosystem. Deep learning frameworks support neural network training and computer vision systems to improve vehicle perception and decision-making in real time—ultimately helping protect passengers and others on the road.

Automakers also bear a corporate responsibility to build and manufacture innovative vehicles that serve not just the needs of today, but those of the future. The automotive industry is buzzing with Jetsons-style innovation, like advanced EVs and AVs powered by robust, data-driven navigation systems. McKinsey projects demand for electric vehicles will grow sixfold by 2030.³

But scaling up EV production to meet the demand requires addressing challenges in raw material sourcing, battery manufacturing, and charging infrastructure.

In other words, it's not just what gets built—but how it's built. From reducing emissions to complying with sustainable manufacturing regulations, automakers must balance innovation and impact. Circularity in automotive means adopting practices like reusing materials, extending vehicle life, and improving resource efficiency—all of which reduce emissions and move the industry closer to carbon neutrality. These practices could cut carbon emissions by up to 75% by 2030, according to a report from Accenture, the World Economic Forum, and the World Business Council for Sustainable Development.⁴

³ Source: <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/can-the-automotive-industry-scale-fast-enough>

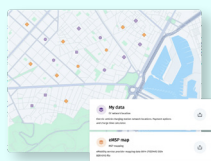
⁴ Source: <https://newsroom.accenture.com/news/2021/the-circular-economy-can-help-reduce-vehicle-lifetime-emissions-by-up-to-75-percent-by-2030-according-to-accenture-and-the-world-economic-forum>



Together, HERE on AWS can help you:



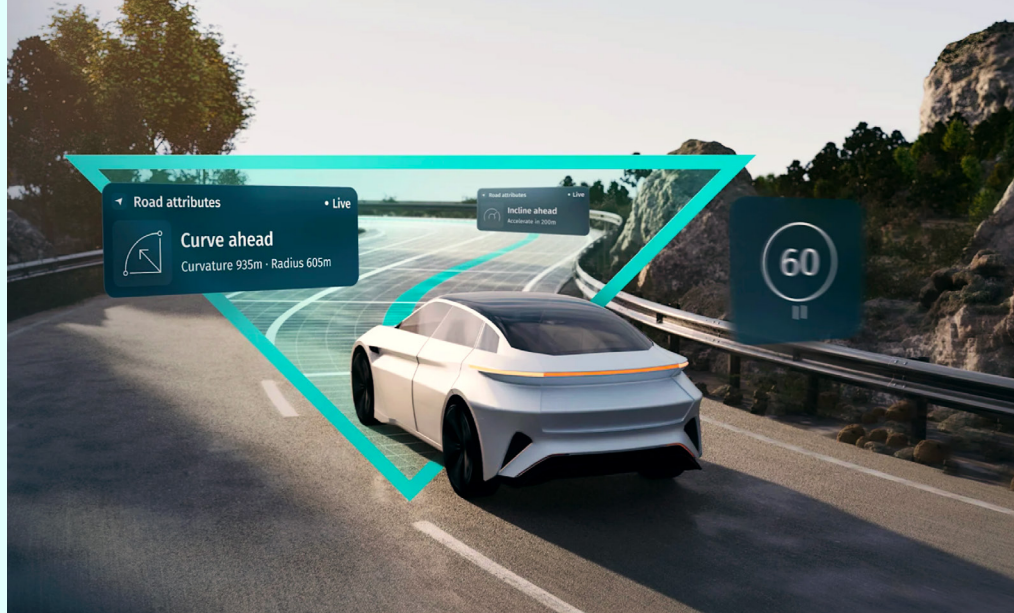
Build better with accurate and real-time data while maintaining full control of what's yours. HERE products, accessible directly in your environment, are built to run on AWS, with reduced latency and the scalability needed to right-size workloads, along with the performance, power, and efficiency of the world's most comprehensive and widely adopted cloud.



Gain accuracy and precision by combining your data with location context from HERE to develop auto solutions quickly in a secure environment. Get a comprehensive developer toolkit that enables you to innovate using location data to incubate, test, and simulate, backed by AWS scalability and services. Your data is protected by HERE's privacy and anonymization tools and supported by AWS security.



Offer leading-edge solutions in the automotive space to delight drivers and run sustainable operations. With AWS and HERE, you can build applications and automated systems that optimize EV routing and charging. Or develop in-house solutions to improve sustainability, comply with regulation, and deliver more differentiation, efficiency, savings, and safety.



Modernize operations to drive change with HERE Technologies on AWS

HERE Technologies, with nearly 40 years of innovation, offers mapping and location technology to empower autonomous driving, seamless logistics, and dynamic mobility experiences. The company was recognized on **Counterpoint's 2024 Location Platform Effectiveness Index** as a top location platform, based on its AI-powered mapping, strategic partnerships, and customer-centric solutions.

HERE offers software, built in collaboration with Amazon Web Services (AWS), that enables automotive developers to recreate real-world environments for advanced driver assistance systems (ADAS) and automated driving (AD) simulation. The software, SceneXtract, enables automakers to access highly precise, accurate and continuously updated map data without manually searching, locating, or converting real-world environments into simulation-ready scenes.⁵

Natural language processing and generative AI services from AWS—built with Amazon Bedrock and Amazon OpenSearch Service—help developers quickly locate and export HERE HD Live Map data into scenes for testing, reducing the time and effort typically required for simulation preparation.

HERE is available in AWS Marketplace, so you can take advantage of streamlined procurement, pay-as-you go pricing, control, and governance.

5 Source: <https://www.here.com/about/press-releases/en/here-technologies-and-aws-unveil-ai-powered-scenextract-to-transform-real>



We'd love to hear from you. Drop us a line.



About HERE

HERE is a global leader in mapping and location technology. For 40 years, we've been powering innovation for the world's most recognizable companies: from launching our first digital map in 1985, to shaping the future of software-defined vehicles today. With the industry's freshest and richest unified map and a portfolio of products, services and solutions that serve the needs of multiple industries, HERE reveals opportunities that drive progress and unlock new possibilities for every moving vehicle. Discover more at here.com.