



TABLE OF CONTENTS



Introduction

Bird's Eye View

Executive Summary

Connectivity Trends

Feature Trends

Next Steps

RELATED SBD REPORTS



526 – Connected Services Guide

Although the opportunities to benefit from connectivity are rising, so are the risks associated with implementing the wrong strategy or falling behind competitors.

It's therefore important to ensure that you always have the latest, most comprehensive, and most accurate information at hand. These reports are the reference guide to OEM connected car services offerings.

#536

Connected
Car

Connected Car Forecast

Since the advent of the first in-vehicle telematics systems, the connected car market has seen exponential year-on-year growth. This growth has been fueled by the increasing accessibility of these systems alongside the growing number of new solutions offered by start-ups and suppliers offering new solutions - some of which have partnered with or received investments from legacy OEMs. At the same time, newer automakers are developing vehicles built around connectivity systems and features - marketing them as USPs.

As legacy OEMs continue to explore new connectivity opportunities while new players emerge and innovate, the connected car market will only grow in complexity. Today, it relies on the correlation between technology readiness, legal activity, OEM investment policies, and vehicle lifecycle management as well as the expectations and acceptance of the consumer. For premium and mass-market OEMs wishing to grow their footprint in this evolving market, maintaining this cohesion is crucial.

In the Connected Car Forecast report, a ten-year outlook is provided on the penetration of vehicle connectivity and key connected features as well as the fitment rate of connected systems. Covering more than 90% of the global connectivity market, it compares how these factors are expected to vary between different regions and different types of connectivity and services.

COVERAGE



GLOBAL



NA



CHINA



EUROPE

FREQUENCY



ANNUALLY



QUARTERLY



ONE-OFF

PUBLICATION FORMAT



PDF



POWERPOINT



EXCEL



ONLINE

PAGES



80+

Request price



Key questions answered

- > How will major OEM groups deploy connectivity in the next 10 years?
- > How will connectivity trends vary per region?
- > What is the expected evolution of specific connected services?
- > What connectivity services are offered in each region?

This research supports



PRODUCT PLANNERS



ENGINEERS

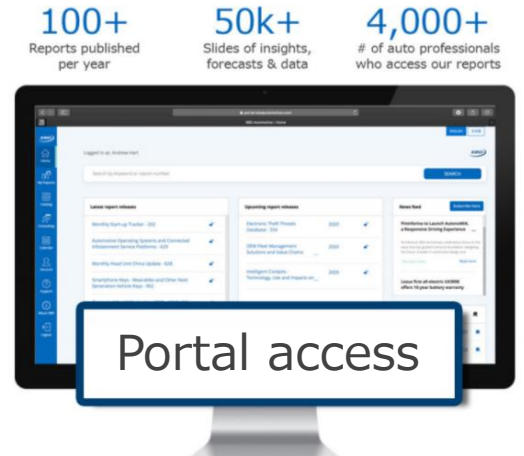


MARKETING



C-SUITE

Do I have access?



Request a quote for

Connected Car Forecast
Annual Report for 2024

Request price





Request price



CONNECTED CAR FORECAST

Global

536 Connected Car Forecast 2024

[Introduction »](#)

4

[Connectivity Bird's Eye View »](#)

8

[Executive Summary »](#)

16

[Connectivity Trends »](#)

20

- Cellular Connectivity
- Local Connectivity
- Smartphone Connectivity
- Screen Duplication

[Feature Trends »](#)

25

- **Driver behavior services and alerts**
 - Driver behavior coaching
 - Usage Based Insurance
 - Vehicle Locator
 - Proactive Alerts
- **Professional Services**
 - Conference calls
 - Email integration
 - Calendar integration
 - News/stocks/sports

▪ **In-vehicle social networking**

- Video streaming
- Social networking
- App/Service Store
- Web browser

▪ **Payments and Transactions**

- In-vehicle payment
- Toll payment
- User review
- Charging station transaction

▪ **Vehicle and Home Integration**

- Remote Device: Car to Home
- Remote Device: Home to Car
- Remote Climate Conditioning
- Send destination to car

▪ **Remote Diagnostics and call centers**

- bCall
- Remote Diagnostics – Customer Alert
- Remote Diagnostics – Service Center/OEM
- Call Centre concierge/ iCall

▪ **EV Charging and Fueling Services**

- Charging station information
- Remote charging control
- Local and POI search
- Fuel price info

▪ **Security and stolen vehicle services**

- Stolen vehicle control
- Stolen vehicle tracking
- Security alert
- Remote vehicle access

35

▪ **General information services**

- Weather information
- Parking space information
- Traffic information
- Internet radio

40

▪ **General safety and connectivity services**

- Location sharing
- eCall
- Speed / Red Light Camera
- Wi-Fi Hotspot

45

▪ **Navigation, maps and VPA**

- Map Update
- Last Mile Guidance
- Route Search and Download
- VPA

50


[Next Steps »](#)

78

[Contact Us »](#)


82

55



Data Deep Dive
View and analyze deep data in your own way

60

Customer Feedback
Provide your feedback to SBD regarding this report





Introduction



Chapter Introduction

SBD Automotive's Connected Car Forecast report provides an outlook of the penetration of vehicle connectivity type and key connected features by market up to 2034. This forecast delivers guidance for industry stakeholders to help understand the level of influence that barriers and enablers to connectivity are having.

The market for connected car features relies on the correlation between technology readiness, government mandates, regulations, OEMs' investment policies, vehicle lifecycle management, and customer expectations and acceptance.

SBD Automotive commits to delivering a realistic forecast up to 2034. The assumptions made in this forecast are based on influencers such as current and likely OEM vehicle fitment strategies, technology maturity, and consumer acceptance of a price point. The likeliness consumers will expect or accept certain connected services as part of a basic or optional fitment is also considered.

Global markets covered



European markets covered

Austria
Belgium
Bulgaria
Czech Republic
Denmark
Estonia
Finland
France
Germany

Italy
Hungary
Ireland
Latvia
Lithuania
Luxembourg
Netherlands
Norway

Poland
Portugal
Romania
Slovakia
Slovenia
Spain
Sweden
Switzerland
United Kingdom

Section	Content
Bird's Eye View	An overview of the key findings from SBD's view of what's important in Connected and Digital services
Executive Summary	Introduction to the forecast. Key highlights and conclusions from the report.
Connectivity Trends	Overview and analysis of connectivity types and the penetration rate trends across the forecasting window.
Feature Trends	Analysis of feature trends identified in the forecast, including expected trends, consumer expectations, and feature evolutions.
Next Steps	Can SBD help you with any unanswered questions?



Global Data is the premier automotive forecasting company and has an exclusive focus on the industry and an understanding of the dynamics that drive it. With offices in Oxford, Detroit, Shanghai, Bangkok and Frankfurt and representation in Brazil, Japan and Korea, they combine 30 years of experience in macroeconomics and demand analysis, with a global network of ground-level, intelligence gathering expert analysts to create unique perspectives and insights.

Global Data provides the vehicle sales history and forecasts which power SBD's forecasting services.

We Listened and Invested In Our Report to Align to Your Goals



You Said...

"I sometimes struggle to relate conclusions from research reports to the Outcomes and KPIs that we are working towards..."

"I would like to see what has recently changed within a forecast or domain to help decide if any changes to strategy need to be made..."

"I want to know where we stand 'head-to-head' against the competition on major industry trends..."

"I can find it difficult to take actionable next steps on Guides without assessing the future direction of the industry..."

"It would be helpful to identify disruptive companies and start-ups to keep an eye for partnerships in the future..."

"I would like the topics to be more 'forward looking' to help with future planning and take advantage of enabling technologies..."



We Did...

Added a connectivity **BIRDS-EYE VIEW** chapter with a high-level overview of all our Connectivity reports.

Enhanced **CROSS-REFERENCING** with insights from our Connected Services Guide.

More **DATA-DRIVEN ANALYSIS** through our Summary Table, Analysis, and Executive Summary.

Pushed boundaries to **UPDATE** and **IMPROVE** the Connected Car Forecast and add new information to the report.

What's new? Adding Industry Signals to interpret data

The Feature trend Section is now divided into **11 sections** reflecting the connected features categories. New slides focusing on historical trends and industry signals will introduce each section

Industry data highlights

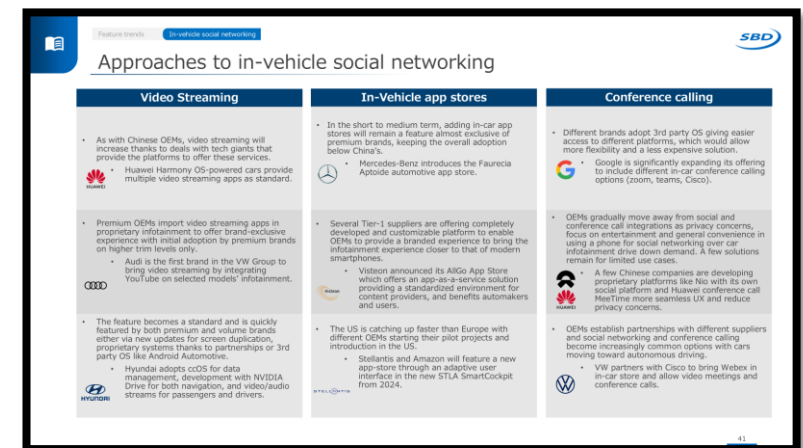
For each connected service category, we picked the **3 features** that **presented significant differences in terms of regional trends or premium and volume segments penetration rate**.

Along with a look at the data we also give an **outlook of where and how each feature highlighted is expected to develop** in the coming years over the forecasted period. The outlook is based on a combination of data analysis and industry signals reviewed in the second slide.


Industry Signals

The final slides of some chapters show industry signals **identifying 3 different 'routes', or approaches applied by OEMs** (sometimes also Tier 1 or tech giants) in the development strategy of the feature highlighted already.

These complemented SBD's data to **provide our outlook and offer an additional perspective** on the data in-depth that follows in every section with charts forecasting each feature one by one.



Example slides from the report

The slide features a blue SUV parked on a city street. Above the car are icons for Wi-Fi, a camera, a smartphone, and a music note. In the background, there is a city skyline and a green line graph showing an upward trend. The SBD logo is in the bottom left corner of the slide image.

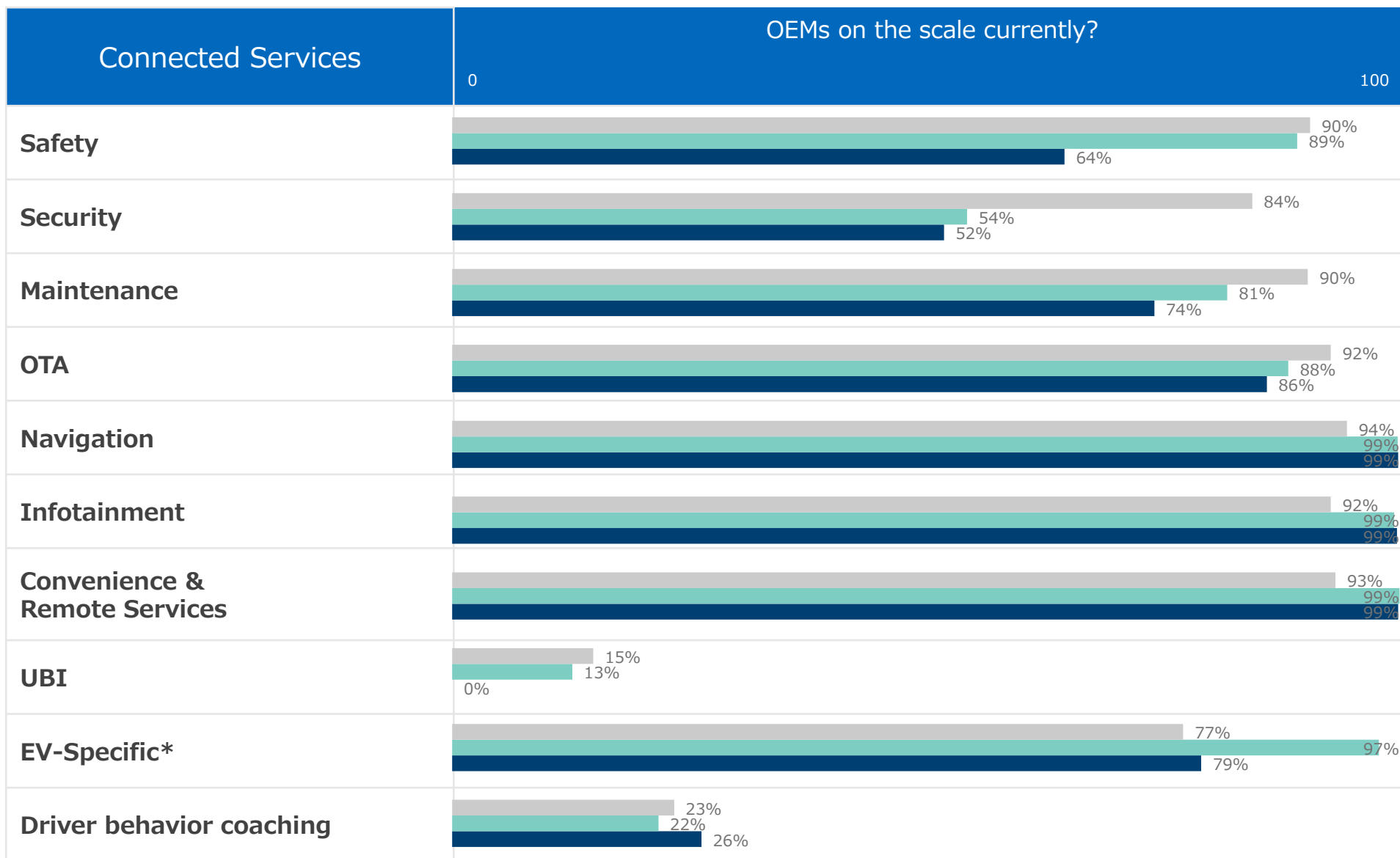
GLOBAL CONNECTED CAR FORECAST

Global

Request price >

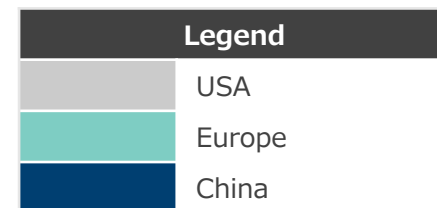


Connected services are scaling



* EV- Specific Services strategy is only analysed for EV models

USA is leading in scaling the Connected services in their model variant lineup.



Connected Services	OEMs on the scale currently?
Safety	90%
Security	84%
Maintenance	90%
OTA	92%
Navigation	94%
Infotainment	92%
Convenience & Remote Services	93%
UBI	15%
EV-Specific*	77%
Driver behavior coaching	23%

Connected Services Guide

This guide takes a deep dive into the comprehensive landscape of connected services, examining the strategies adopted by OEMs to enable them. Detailed insights and comparisons of key players, business models, and service availability, are shown.

[Learn more](#)



Local connectivity

Volume brands and regional differences

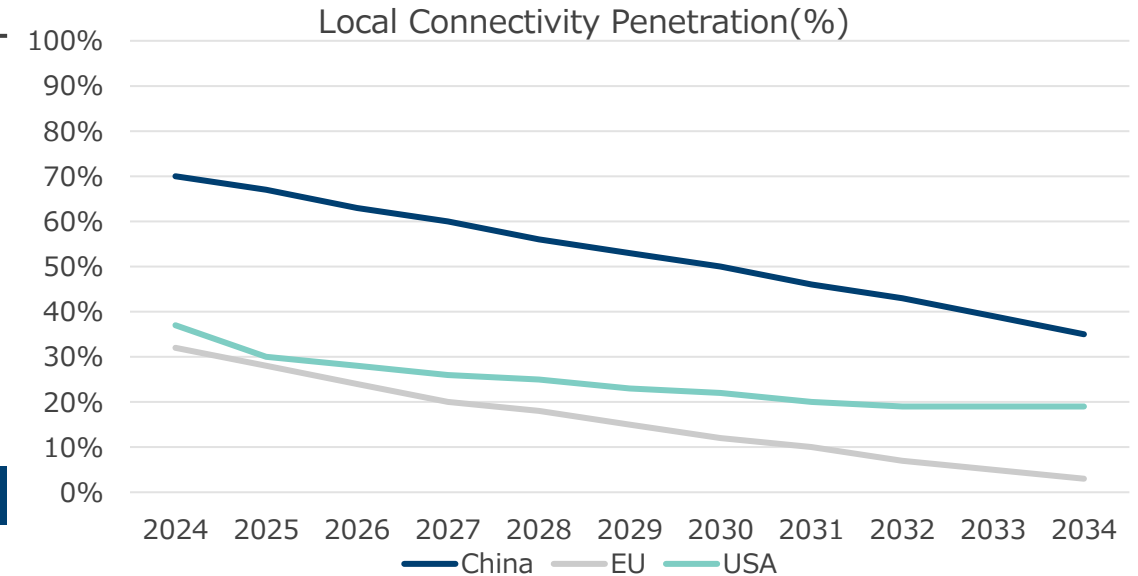
Some OEMs provide services that rely on local connectivity, but the overall usage of local connectivity is declining. Regional variations significantly impact the overall usage rate. SBD forecasts a decrease in the adoption of local connectivity as cellular connectivity becomes more prevalent.

Local connectivity is a cost-effective choice for mass-market brands that want to provide high-bandwidth services and over-the-air (OTA) updates for maps and software. It still supports real-time updates.

Consumers expect seamless digital experiences, which local connectivity cannot always provide. Local connectivity cannot be depended upon for critical services or safety-related software updates.

SBD Outlook

SBD expects the trend of decreasing penetration to continue over the forecast period. The percentage of local connectivity applications will decrease in favor of cellular equivalents.



Drivers

- The key driver for local connectivity is lower cost compared to a cellular equivalent, particularly for volume brands.
- The option is cost-effective for the user. It provides lower data download costs compared with cellular solutions.
- Local connectivity is suited to infrequent use cases such as over the air updates for maps and software. Local connectivity is maintained in China by some OEMs.

Barriers

- Cannot be relied upon as a means of connectivity due to consumer setup challenges.
- Not suitable for mission-critical or safety related software updates.
- Not a reliable way to harvest status or sensor data from the vehicle.
- Falling data costs makes the cost effectiveness argument weaker when compared with the lack of connectivity certainty.

Local Connectivity

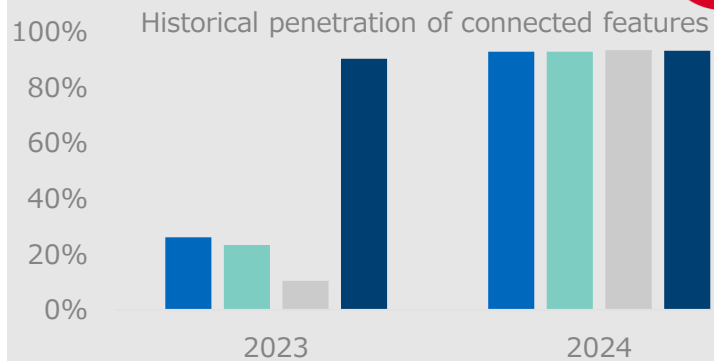
When the OEMs provide the software, hardware and firmware from the factory however, the connectivity is provided by the user.





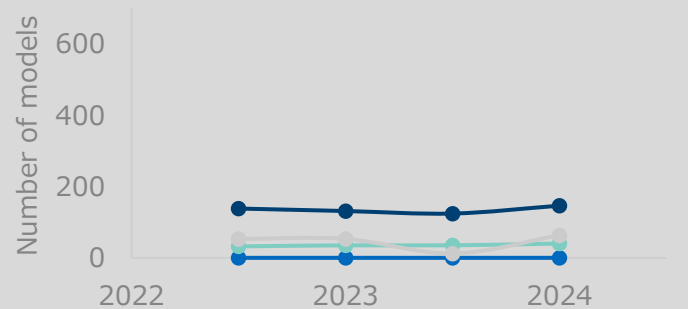
Professional Services

Historical trends in USA



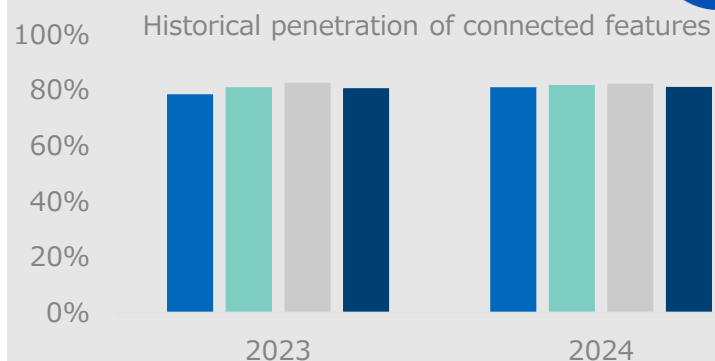
■ Conference calls ■ email integration
■ Calendar Integration ■ News/stocks/sports

Historical availability of connected features



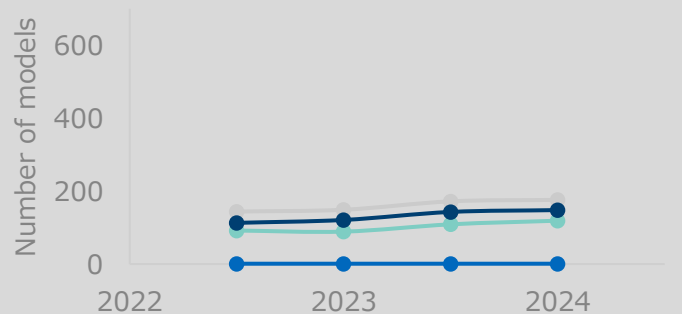
● Conference calls ● email integration
● Calendar Integration ● News/stocks/sports

Historical trends in Europe



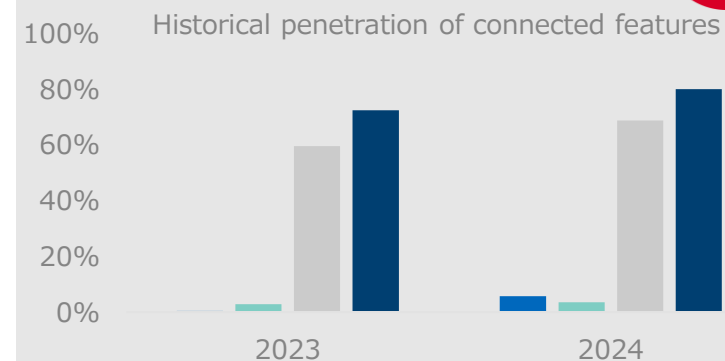
■ Conference calls ■ email integration
■ Calendar Integration ■ News/stocks/sports

Historical availability of connected features



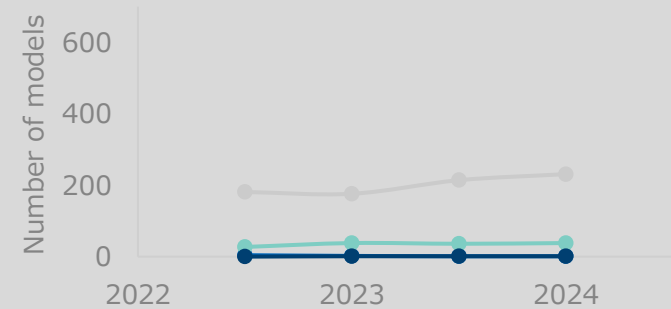
● Conference calls ● email integration
● Calendar Integration ● News/stocks/sports

Historical trends in China



■ Conference calls ■ email integration
■ Calendar Integration ■ News/stocks/sports

Historical availability of connected features





● Conference calls ● email integration
● Calendar Integration ● News/stocks/sports






Approaches to payments and transactions



Charging Station Transaction

- Premium OEMs (and volume ones to a lesser extent) increasingly continue the adoption of in-vehicle charge transaction reaching a significant penetration over the next 10 years.
 -  Audi enabled the Audi charge card via myAudi app to allow standardized and seamless charging through several countries in Europe.
- A few premium OEMs are following Tesla's example and developing an entire ecosystem including proprietary charging network which will allow an easier payment and overall experience.
 -  Mercedes-Benz is creating its own network with over 10,000 chargers globally bringing the entire experience in-house and making charging and paying more seamless.
- Other volume OEMs not having developed a proprietary in-vehicle payment solution rely on screen duplication and 3rd party apps.

In-Vehicle Payments

- In-vehicle payment adoption gradually increases but while lagging behind China, it remains mostly a premium optional features in both North America and Europe developed on proprietary platforms.
 -  Starting from Germany and Austria, BMW has integrated an in-vehicle payment function for Parking. The feature is being gradually extended at other markets.
- Volume brands gradually introduce in-vehicle payment features starting from a more limited range of use cases.
 -  Starting from selected markets throughout Europe Skoda has introduced a service that allows owners to pay for parking either from the MySkoda App on the phone or via infotainment system.
- Other volume OEMs enter partnerships with dedicated 3rd party providers.
 -  Hyundai Motor America has partnered with Parkopedia upon introducing is Hyundai Pay service to provide in-vehicle payment for parking.

Toll-Payment

- The feature initially is mostly adopted by premium brands and remains in the US, and as it has been so far is offered only as an optional feature on selected models.
 -  Audi has been the first to introduce an ITM (integrated toll module) in specific models sold only in North America.
- In the medium-term, for volume OEMs and brands it becomes more common as an additional features following more popular in-car payment capabilities and gradually overcoming also regional barriers.
 -  Hyundai is introducing in-car payment in the US for different use cases, but initial focus is on parking fees.
- In more fragmented markets, this might be seen as an unnecessary solution where customers are already used to 3rd party solutions that already offer a seamless experience.



Charging Station Information and Remote Charging Control

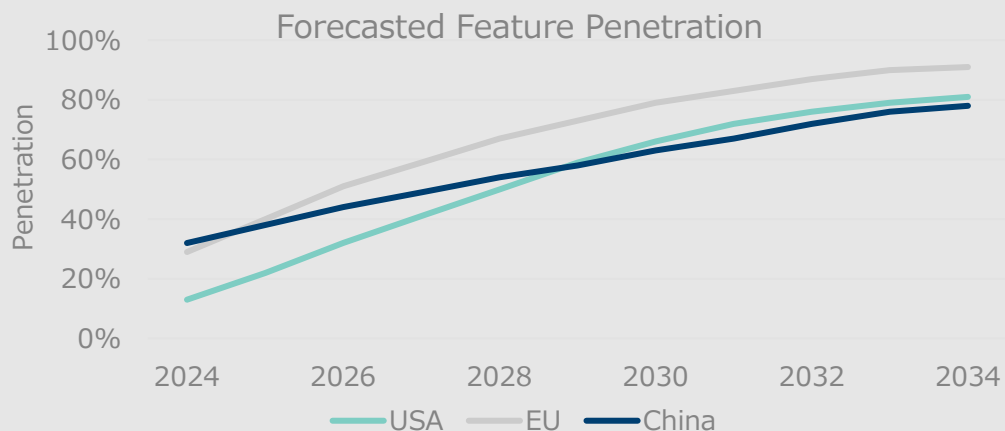
Charging station information

This is a hygiene feature for EVs (and PHEVs), with consumers expecting it as a critical service to arrange and plan charging when traveling. The feature has a high penetration rate for volume and premium vehicles in all three regions.

Charging station information is tailored to make the user experience predictable and remove range anxiety.

Further development, some of which are starting to appear, will involve predictive occupancy of EV stations and additional filtering options complementing location, brand, compatibility and others already available via infotainment or companion app.

This feature is mainly supported through cellular connectivity, despite alternatives through screen duplication.

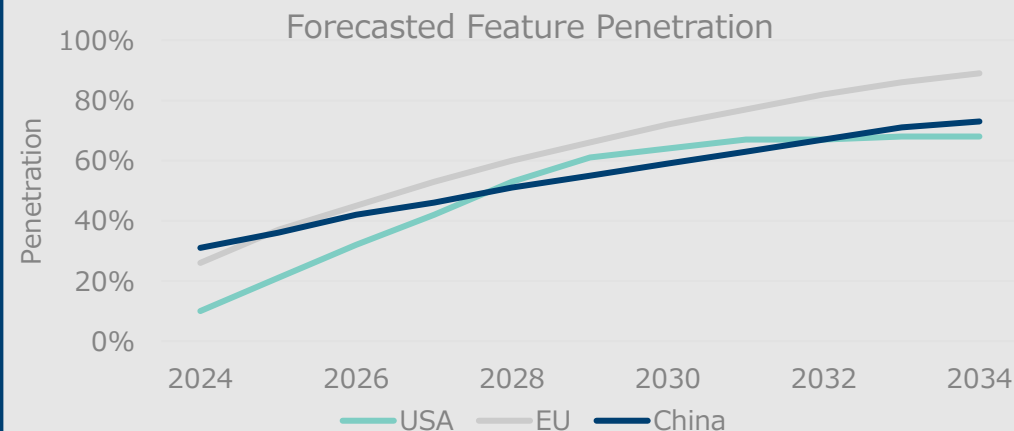


Remote charging control

Remote Charging control is a hygiene feature for EVs and has a high penetration rate in all three regions. China leads ahead of Europe and the US, but the EU region is set to overtake the US and China eventually.


Future development for the feature will see more in-depth control over charging schedules and proactive alerts as users become familiar with the ecosystem and charging processes. Also, battery management apps will increasingly focus on preserving the battery performance most effectively and minimizing warranty claims.

This feature is only supported through cellular connectivity, and it is expected to remain consistent despite some being supported by local connectivity.





Request the price



The graphic features a blue SUV parked on a city street. Above the car are icons for Wi-Fi, a smartphone, a music note, and a document. In the background, a city skyline is visible, and a green line graph shows an upward trend.

SBD
Global

GLOBAL CONNECTED CAR FORECAST

Request price >



Contact Us



Contact SBD Automotive

Do you have any questions?

If you have any questions or feedback about this research report or SBD Automotive's consulting services, you can email us at info@sbdautomotive.com or discuss with your local account manager below.



info@sbdautomotive.com



Book a meeting

USA

UK

Germany

India

China

Japan



Garren Carr
North America
garrencarr@sbdautomotive.com
+1 734 619 7969

Luigi Bisbiglia
UK, South & West Europe
luigibisbiglia@sbdautomotive.com
+44 1908 305102

SBD China Sales Team
China
salesChina@sbdautomotive.com
+86 18516653761

Andrea Sroczynski
Germany, North & East Europe
andreasroczynski@sbdautomotive.com
+49 211 9753153-1

SBD Japan Sales Team
Japan, South Korea & Australia
postbox@sbdautomotive.com
+81 52 253 6201