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Automotive App Guide – 531

In order to offer consumers, the functionality they have become accustomed to in the consumer electronics world, automotive OEMs and other developers are offering apps for the car. The Automotive App Guide helps you make sense of the app market for automotive OEMs and app developers.

SUSTAINABLE

Sustainable

#223

EV Apps & Digital Consumer Experience Guide

EVs have entered the mainstream and are now becoming more accessible as automakers target new consumer demographics with new models launched across a range of segments and price points. A common feature shared by these models, regardless of their category or pricing, is an ecosystem of EV-specific apps and services.

Here, EVs rely on a multi-channel communications approach that unites smartphone apps, owner portals and in-vehicle systems to inform the owner on battery status, charger availability, digital payments, and EV value-added services. With this approach playing a key role in the EV experience, it is critical for OEMs to balance a rich ecosystem of EV-focused digital apps and services with a holistic consumer journey that informs, supports, and maximizes the end consumer experience.

The EV Apps & Digital Consumer Experience Guide provides a detailed breakdown of how automakers are offering EV apps and a digital consumer experience through five key steps. While offering insight into how digital tools and services can be leveraged to drive EV adoption, the report also identifies the best practices for digitizing key components of the EV user journey and understands how the remote and in-cabin vehicle experiences work together to deliver information and support new EV-related digital experiences.

COVERAGE

GLOBAL | NA | CHINA | EUROPE

FREQUENCY

ANNUALLY | QUARTERLY | ONE-OFF

PUBLICATION FORMAT

PDF | POWERPOINT | EXCEL | ONLINE

PAGES

TBD

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Key questions answered

> What EV apps are in the market from each OEM, and what level of features are enabled?

> How can the EV digital experience be customized, personalized, and further digitzed overall?

> What is the payment strategy of each OEM with charging networks, apps, and services?

> What is the CX contrast between OEMs with owned vs multiple third-party charging networks?
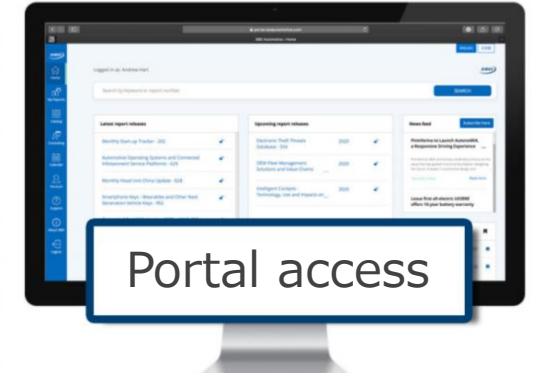
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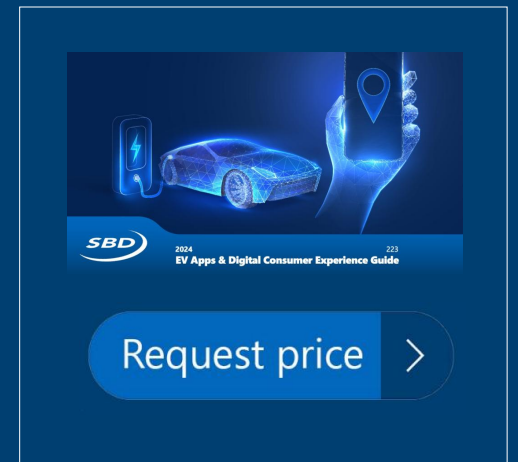### Annual Report for 2024

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2024

EV Apps & Digital Consumer Experience Guide
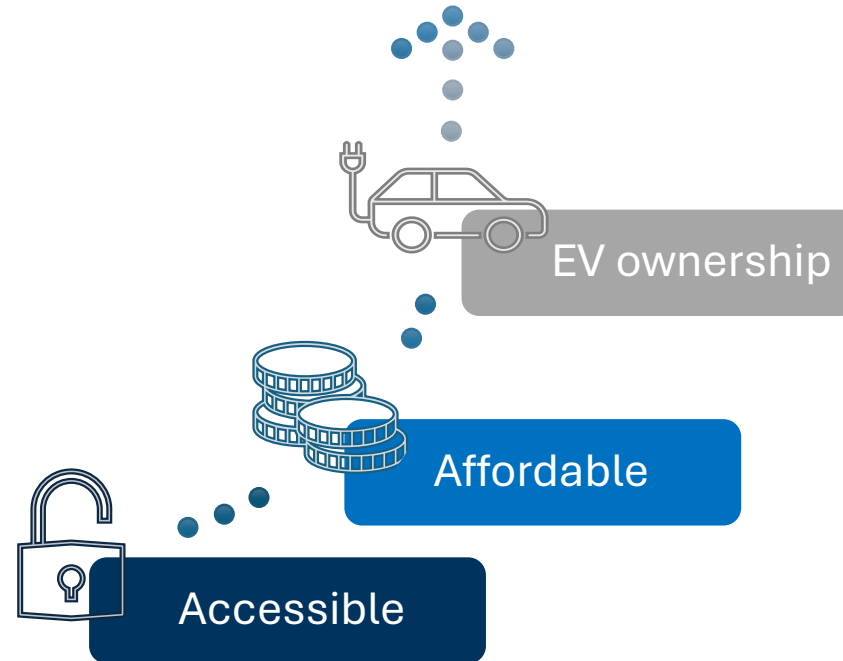
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Example slides
from the report

# Transforming the EV journey with charging offers and incentives

Free or discounted charging offerings, enhances EV ownership by making EVs more affordable and accessible

What's the best solution?

EV ownership

Affordable

Accessible

Recommendation

- The charging industry is currently strained with high capital investments and limited cash flow. Therefore, incentives for charging will need to come from automakers, rather than CPOs or eMSPs.

- OEM-branded eMSP offerings and charging stations helps to build customer confidence in the OEM's ability to deliver a seamless and complete EV ownership experience with their broad charging coverage, and it gives more opportunity for customers to receive offers on charging services.

- OEMs in-house eMSP could be through offering a white-label eMSP charging solution to customers, where the service is provided by the OEM despite being a 3rd party service. This approach limits the OEM's responsibility to initial sign-up only.

- With the charging industry already well-established, it is recommended OEMs to offer attractive rates and discounts through the 3rd party partnership, including offering limited free charging.
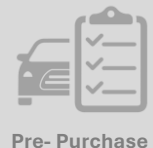
Pre- Purchase
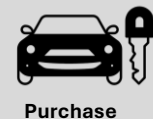
Purchase

Post- Purchase

End of life

Free or discounted charging offers by Automaker

- The cost of charging is a considerable **barrier to EV adoption.** Therefore, automakers offer **free and discounted charging** to comfort this cost barrier.

- Volume and premium OEMs are offering **up to 3-years free** fast charging offer for their EV customers. Many automakers in the USA such as Genesis, Hyundai, Jeep, Lucid Motors and VinFast have **partnered with Electrify America** to offer free charging. Similarly, in Europe, many automakers such as Toyota, Volkswagen, Porsche, BMW, Mercedes-Benz, **are offering free charging on the IONITY** network. However, a few such as Cadillac, Chevrolet, GMC and Subaru instead **offer a free charging credit** (up to $500) to be spent at specific charging network provider.

- Free and discounted charging are offered commonly by automakers; however, some of these offers are **typically less frequent and for shorter durations** or even **many volume OEMs do not offer free or discounted charging at all**.

- **Electrify America** in the USA is a subsidiary of the Volkswagen Group who has formed many partnerships with automakers, allowing them to use their charging stations.

- Also, the **IONITY** network in Europe, is a fast-charging infrastructure partnership between BMW Group, VW Group, Mercedes-Benz, Ford Group and Hyundai Motor Company

EU & USA OEM Groups

Free Charging: Free Charging sessions or credits after new EV purchase

EU & USA Charging networks

Discounted Charging: Discounted charging rates for certain periods or regional or network-specific discounts
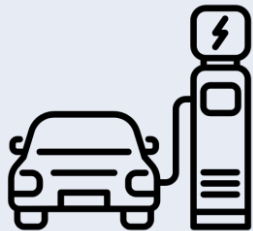
Battery data provided by OEMs is valuable for consumer experience

EV specific vehicle data	SBD expert view

Charging experience data

At the time of purchase, **the battery charging speeds** information is provided, which often do not match the advertised rates. With no data from OEMs, it is difficult to find out what cause this differences. This could be because of different reasons such as **charger fault, the car fault, or maybe it is because of the weather condition.** With no detailed information from OEMs, the reason cannot be determined.

A few years ago, China implemented real-time battery and charging data monitoring in New Energy Vehicles (NEVs). So, the manufacturers send battery and charging data multiple times a day to monitor battery performance and quality.

Specific data about charging information it goes beyond the automotive industry and **involves the entire ecosystem.**

These key information can make huge improvement in different aspects such as **charging, consumer understanding and to be able to publish the list of the fastest charging vehicles.**

Therefore, third party access to charging data, would be beneficial as this would be more of **consumer related matter.**

Battery degradation data
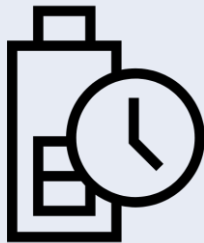
Battery degradation information over the time provides us with an understanding **of how quickly battery loses its capacity over the time.**

However, these information are usually not available from OEMs. But there are some suppliers might be able to **send little information form OBD connector**, and these data are mandated. Mostly are about basic traffic code and emission related data and so, **only little information can be received.**

There might be also some agreement with OEM, where the OEM have to sign up to the supplier platform, so that data collection can be operated.

Receiving the battery information from OEMs will be highly beneficial as this **would be about overall consumer experience** and it extends beyond **OEMs , charging information, battery suppliers and other aspects.**

However, OEMs hesitate to provide this information, so the **access to this type of data is restricted** as it brings security concern for OEMs.
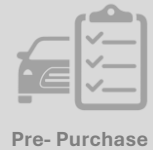
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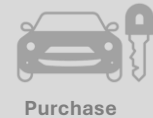
Purchase

Post- Purchase

End of life

Enhancing user experience through App and Car Communication

Category	Charging experience and the app communication	
Description	**Communication between an app and the car provides convenience and improves the battery life**	
SBD Viewpoint	Communication between an app and the car highlights **the importance of seamless integration**. This interaction provides **real-time data exchange** and allows the **app to remotely control, monitor, or enhance the vehicle functionality.** Some of this interactions includes: • **Set destination from navigation in the companion app, then send it to the car.** • Important question here is: **if that it is going to initiate the same respond as if the destination was set in the car?** • **Precondition before plug-in to charge.** When set destination to charging location, it automatically set pre-conditioning the battery to be charged. This helps not only charge faster but also is better for the battery life. This feature isoffered on some OEMs such as **Tesla and Acura ZDX (Charge Assist).** **Benefit**: provide better user experience while improving convenience and functionality.	
Customer experience impact	Low	Medium	High

Preconditioning when set destination to charging location

- Preconditioning battery for fast charging when a destination is sent to the car

- The vehicle will prepare the battery to charge at faster rate for when the user arrives
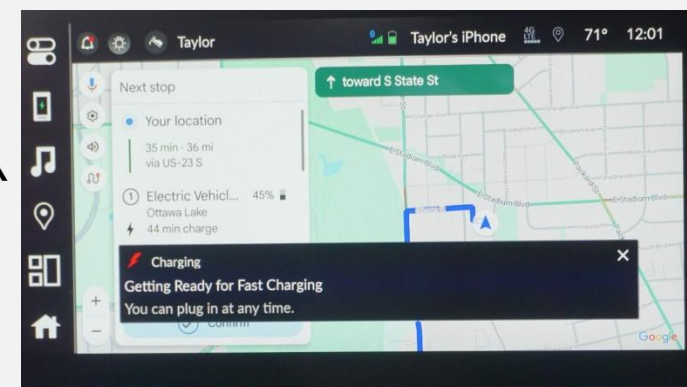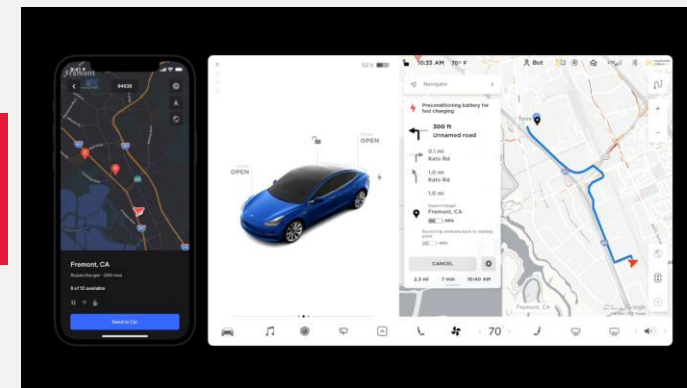
myBMW. Generally, well rated but some inconsistencies with IVI

App store logo(s) ▶

App Name(s) ▶ **My BMW**

Other App(s) ▶ **BMW Driver's Guide**
We@ BMW Group

Overview ▶

- Of the features researched for this report (see accompanying database to this report), users can adjust charge scheduling based on time of day and day of week in the myBMW app, but not in the infotainment.

- Of the user reviews considered in this report, some of note are not showing DC charging speed when using a high-speed charger and recurring problems of charging schedules being reset or forgotten by the app.

2024 App ratings ▶

87% growth in number of Android reviews in August compared to July. 115% increase in 5-star reviews from July to August.

Legend: Android Reviews, iOS Reviews, iOS Rating, Android Rating
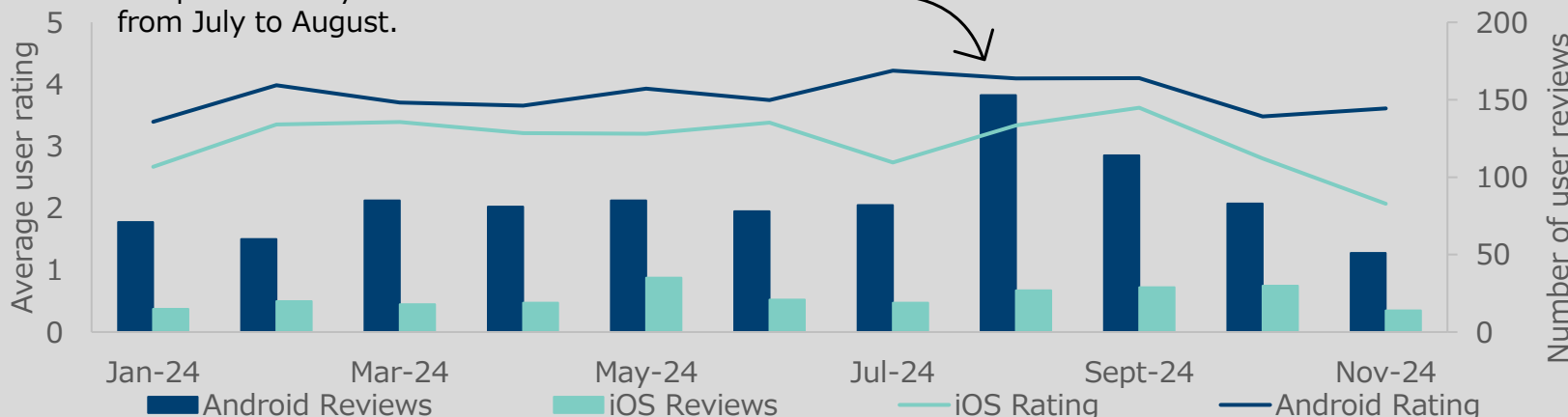
Charging features

Charging based on electricity price	Scheduling based on time of day	Scheduling based on day of week	Pre-planning of charging

Trip planning features

Multi Stop Planner	Departure charge level customization	Intelligent routing optimized for efficiency	Season and weather based

App updates

18 iOS
Since March 2024

6 Android
Since March 2024

Number of languages

26 Languages

24 Languages

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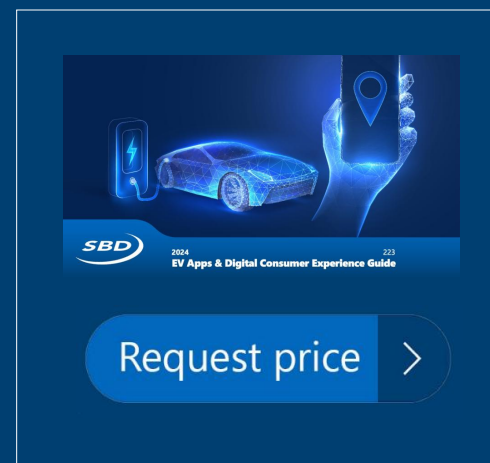
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