Q3 2024

Q3 2024   2210-24-Q3

Quarterly Wrap-Up

Summary and insights of the top trends from the last three months

About SBD Automotive

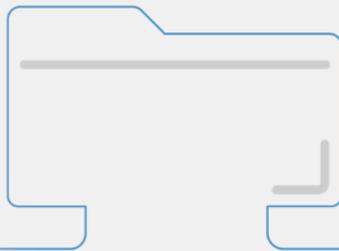Management & technology consultants to the automotive industry for over 20 years

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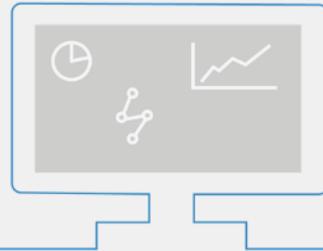
As our industry faces…

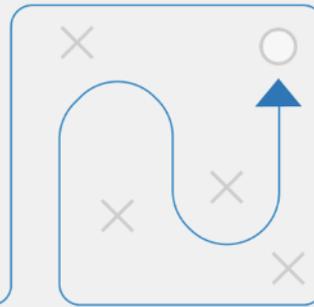We provide our clients with…

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2210 - Quarterly Wrap-Up – Q3 2024

Customer Feedback
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Total number of pages - 46

Introduction

> **SBD's Quarterly Wrap-up** helps you quickly catch-up on **CASES + SDV trends** from the **past few months**, providing **insights** from our analysts on the impact of **major announcements**.

How to use this Report

Top Trends

- Trends organized within SBD's **Trend Radar** and categorized by **CASES**
- **Related news** explained for each trend along with **data** and **insights**
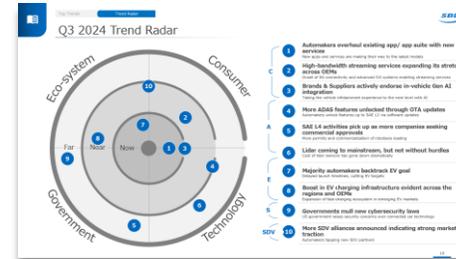
Major Movers

- **Five organizations** picked based on their **impact** over the last quarter
- **Announcements** relating to each of the companies **analyzed**

Everything Else

- Complete list of every **major news article** and **announcement** from the last quarter
- Articles organized by **CASES**

Europe sets a strong example of EV transition

	HERE–SBD EV Index – Europe	**HERE-SBD EV Index – USA**	**HERE-SBD EV Index – India**
Summary	• Europe is observed to boost **public EV charging power by 115%** since 2023. • **24 countries in Europe** achieve a satisfactory EV-to-public charger ratio. • **Norway** marks the highest market share in EU, while **Denmark** leads with the highest number of charging stations per road length.	• United States public charging power is up by 82% since 2023 but only 4 states meet a satisfactory **EV-to-public charger ratio.** • **Total count of public chargers grew by 29% in the past year,** with Delaware, Tennessee, Louisiana, Texas and Indiana showcasing most significant improvements.	• India's focus is on **electrifying public transport and two and three-wheelers.** • **Chandigarh** leads the index, with the ZEV deployment plan, while **Rajasthan** has the highest BEV penetration of 0.049%.
Road ahead	• Countries like Hungary, Spain, Ireland and Netherlands have seen a drop in their EV index. • **Strong incentives, steady infrastructure investment and consistent government support may help to boost EV adoption in those countries**	• Alaska, Arkansas, Kansas and Nebraska have a relatively low number of charging stations per road length. • The **slower rate of EV adoption** makes **expanding EV infrastructure a challenges. Both are related so need to grow together.**	• Active participation of government policies in conjunction with infrastructure adoption could **boost India's EV market to top 10 by 2030.**

" This herculean effort requires seamless coordination, not just among the industry players, but also with consumers, to ensure that demand for EVs is balanced with supply of both vehicles and charging options. Government incentives and consumer education will continue to play a significant role in accelerating the transition as the market moves beyond early adopters and into the majority. "

Robert Fisher
Domain Principal (Electric Vehicles)
SBD Automotive

Executive Summary

High-level summary of what's changed from the last quarter

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Executive Summary

	Trending companies	**Top themes**
C Connected	HONDA, SONY, NVIDIA, Cerence	Automakers announcing significant upgrades to their infotainment platforms with the integration of AI-based virtual personal assistants, high-bandwidth services and new apps and app suites.
A Autonomous	Mercedes-Benz, pony.ai, m, INNOVIZ	Automakers overhaul their ADAS suites by adding lidar and introducing new features via over the air updates (OTA). SAE L2+ hands-off assisted driving and SAE L3 piloted driving are likely to be introduced via OTA on many brands
S Shared		*No significant trends observed in the last quarter*
E Electric	Ford, Toyota, VOLVO	Amid global supply chain headwinds and economic concerns, many EV makers are re-visiting their electrification targets
S Secured	GOV.UK, Seal of the President of the United States	The government of the USA highlights the cybersecurity problem in connected cars emphasizing the risks associated with imported Chinese and Russian technology
SDV Software-defined Vehicles	HYUNDAI MOTOR GROUP, BMW GROUP, SAMSUNG	Many brands are forging new alliances and joint ventures to leverage each other's expertise in SDV development. Some brands are likely to co-develop SDV platforms.
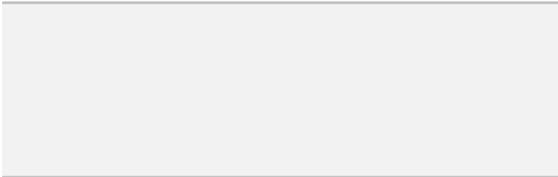
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A wide **Research Catalogue** designed to help **automotive professionals** navigate effectively through a rapidly-changing industry

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VARIETY
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Top Trends

The key trends fuelling the automotive innovation

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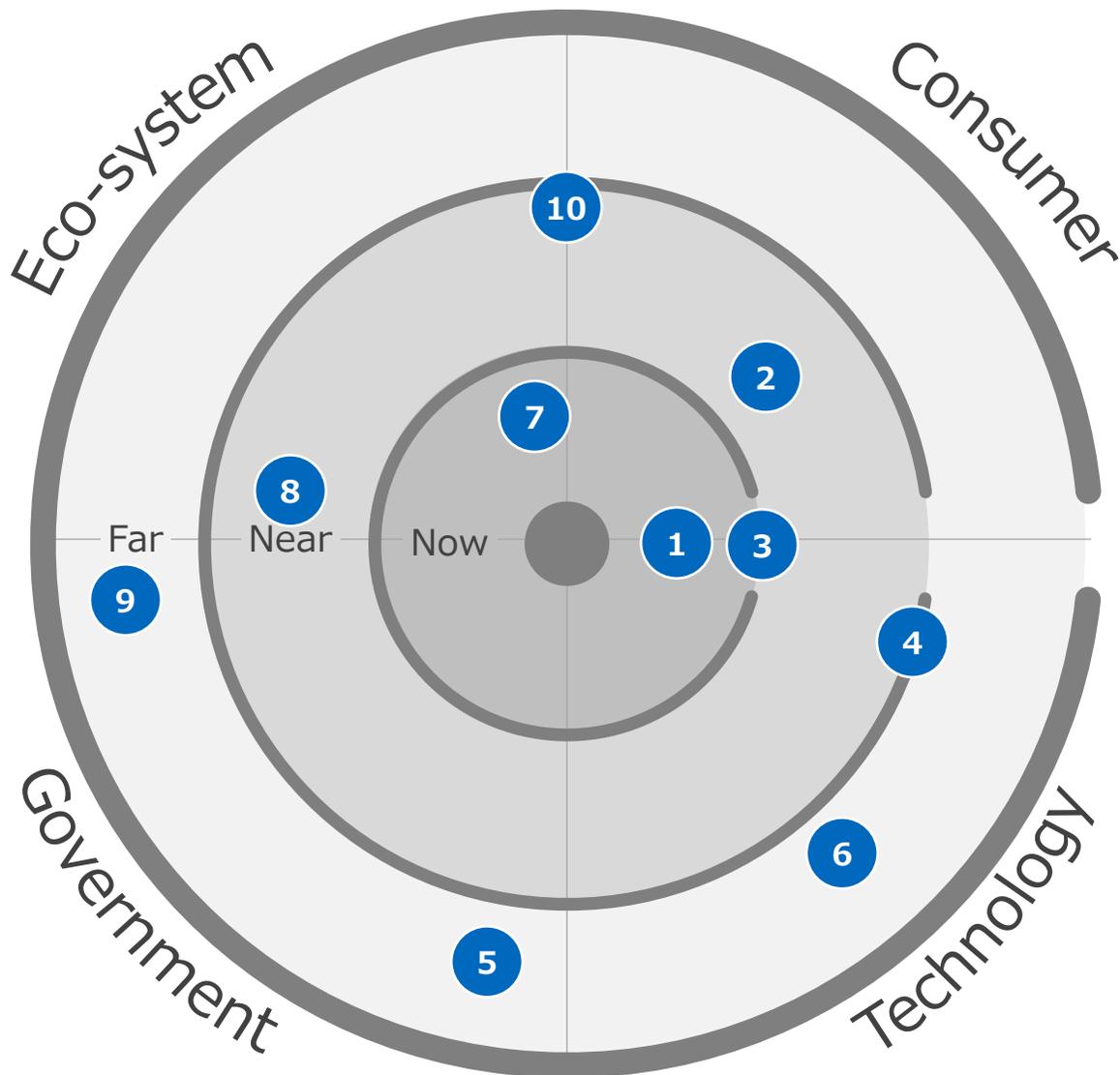
1 Automakers overhaul existing app/ app suite with new services
New apps and services are making their way to the latest models

2 The availability of high-bandwidth streaming services is growing
5G connectivity and advanced infotainment systems are enabling streaming services

3 Automakers & suppliers endorse in-vehicle Gen AI integration
Taking the vehicle infotainment experience to the next level with AI

4 Automated driving features unlocked through over the air software updates
Automakers unlock features up to SAE L3 via software updates

5 SAE L4 activities pick up as more companies seeking commercial approvals
More permits and commercialization of robotaxis loading

6 Lidar coming to mainstream, but not without hurdles
Cost of lidar sensors has gone down dramatically

7 Majority of automakers are keeping EV goals under review
Delayed launch timelines and reviews of EV targets

8 Boost in EV charging infrastructure
Expansion of fast-charging ecosystem in emerging EV markets

9 Governments consider new cybersecurity laws
The Government of the USA raises security concerns over connected car technology

10 More SDV alliances announced indicating strong market traction
Automakers finding new SDV partners

❶ Automakers overhaul existing apps/app suite with new services: In the news

- **OEMs are enhancing their remote app features to better suit upcoming electric vehicles.**

- **OEM's set-up 'Group Application Store' to accommodate actively expanding app ecosystem.**

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Honda re-strategizes for EV and PHEV models with renewed MyHonda+ app

- Honda consults with owners and users to **relaunch its advanced connected car application**.

- MyHonda+ provides access to a virtual dashboard of '**Core Connectivity', 'Safety & Journey', and 'Honda Digital Key'** packages.

- MyHonda+ will be available **free of charge for 3 years, followed by a monthly payment thereafter**.

- The updated MyHonda+ will be rolled out for all existing and new users from July 1st, 2024.

BMW Group attempts consistency between in-car and mobile experience

- Utilizing BMW's long-standing partnership with **Mapbox**, BMW has integrated the **My BMW app and MINI App with a redesigned mobile map interface.**

- Users can enjoy an enhanced map design, with **detailed 3D buildings and a smoother transfer of routes between device and vehicle.**

- BMW's companion app collaboration with Mapbox allows its flexible software development kit to be used to build customized automotive navigation technologies at scale.
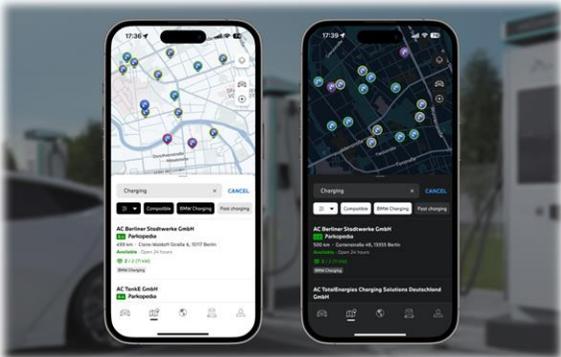
Mapbox includes light and dark mode in enhanced map design on My BMW & MINI app

Volkswagen group continue momentum with newer apps

- **Cariad**, alongside **Harman,** are enriching VW group's in-cabin experience with newly available apps.

- VW's **Group Application Store** integrates more than 70 apps depending on the model and market through the Harman Ignite Store.

- The Group Application Store is **available on selected MY24 Audi models** with latest integration on **all-new Audi Q6 e-tron.**

- Among the latest apps are - **Booking.com, Eventseeker, Livil, with Bloomberg and Microsoft to be added in the future.**

① Automakers overhaul existing apps/app suites with new services: Going Deeper

SBD PERSPECTIVE:
- **Decades post the initial adoption of app/ app store integrations for vehicle; OEMs are only now dynamically looking into solutions to aid constant upgrade.**

- **Active feature upgrade on remote apps to aid convenient EV transition and constant flow of newer/ latest apps in app store should be key focus for OEMs and suppliers to retain consumer enthusiasm and loyalty.**

Improvising App features
(Source: 531 – Automotive App Guide – HY1 2024)
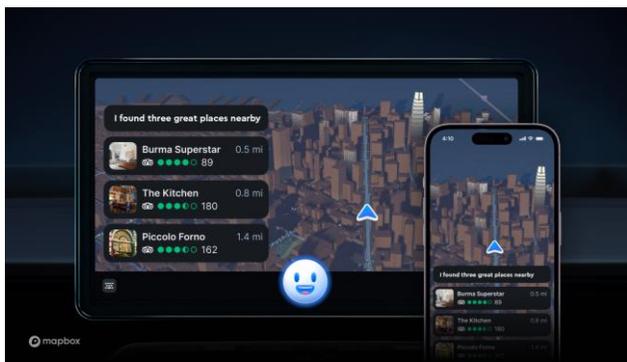
Mapbox introduces MapGPT

- Mapbox has introduced MapGPT, a new conversational AI service tailored for automakers that can be used to create customizable voice assistants for vehicles.

- Integration with 'The Weather Company' and 'PayPay' allows access to weather information and services like payments to be provided

TomTom releases all-new plugin to ChatGPT

- TomTom have collaborated with OpenAI to create a plugin that enhances geolocation services in ChatGPT.

- It also offers preset actions for tasks like navigation and music playback, and users can create new actions for personalized control.
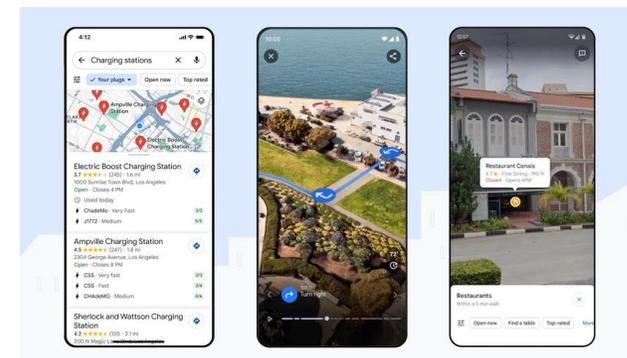
New Google Maps update

- Google Maps has introduced new updates to enhance trip planning and navigation experiences.

- These updates include Immersive View for routes, allowing users to preview their journeys in a multidimensional view, Lens in Maps to help understand surroundings with augmented reality, and a more detailed map with realistic building representations and lane details.

Left sidebar: ECGT / CASES / USA / China / Europe / Other / Global

❷ High-bandwidth streaming services expanding its stretch across OEMs: In the news

- Existing internet streaming services are experiencing an evolution. The services have progressed from streaming music to streaming videos and movies.

- Content aggregators and suppliers (e.g., Pandora, Spotify, Apple Music, YouTube) are deep-diving into using in-vehicle integration as an added vertical for growth and business.

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Sony forays into in-vehicle services with VinFast

- **VinFast** will integrate **Sony**'s new online entertainment service, **RIDEVU**, on its **VF 8 electric car model in the USA.**

- **VinFast's Connect Prime** connected package will **include RIDEVU as a complimentary service. The VF 8** will receive this via an **over-the-air (OTA) software update (**version 9.6.1.11).

- For a **safe in-car experience,** drivers can only watch movies via the RIDEVU app on the central screen **while parked.**

LG Automotive adds Disney+ to its content platform

- Designed to deliver seamless in-car experiences, **LG adds Disney+ to its Automotive Content Platform (LG ACP) powered by WebOS.**

- The Disney+ app on LG ACP is available in South Korea and is scheduled to roll out globally. **A subscription is required to access Disney+ in vehicle.**

- Following the addition of Disney+, LG's in-vehicle infotainment solution now gives passengers a wide range of streaming apps including Netflix, YouTube and TikTok.
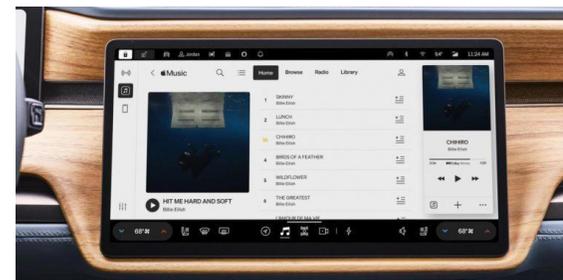
Rivian Apple Music doesn't require CarPlay

Rivian adds Apple Music streaming to R1

- Rivian released details of its new **Connect+** software suite, which also includes Apple Music and Audible (it costs $14.99 per month post a free trial period of 90 days).

- **Connect+** is available on RS1 MY25 and to previous year models as an OTA update.

- Apple Music is independent of Apple CarPlay

❷ High-bandwidth streaming services expanding its stretch across OEMs : Going Deeper

SBD PERSPECTIVE:

- **Having pioneered the feature of movie and video streaming, Tesla is now being aggressively joined by major automakers as the industry prioritizes user entertainment.**

- **The growth of EVs, and OEMs on the verge of adopting SAE L3 is giving consumer entertainment suppliers the opportunity to add long-term revenue and enhance consumer experience.**

Snapshot of Cloud Content suppliers
(Source: 526 – Connected and Digital Service Guide – HY2 2024)

OEMs are adopting cloud solutions to gather insights from the broad array of data generated from their vehicles and app stores. This technology brings several advantages:

1 Lower IT costs

Cloud platforms can save IT resource budgets and improve productivity.

2 Software innovations

The development of software and hardware with the continuous services of the back-end cloud platform empower innovation and development

3 Call Center

OEMs are using cloud solutions to provide full-stack call center capabilities that reduce customer care costs.

4 Product differentiation

OEMs can use perception algorithms to create personalized upper-layer applications. New entrants can establish competitive advantages with cloud services and the ability to adjust software on demand

What major services are part of cloud content? And what is their availability rate across OEM models ?

Navigation, Internet-based Streaming, Information, Other, EV Related — Available / Not Available (0%-100%)
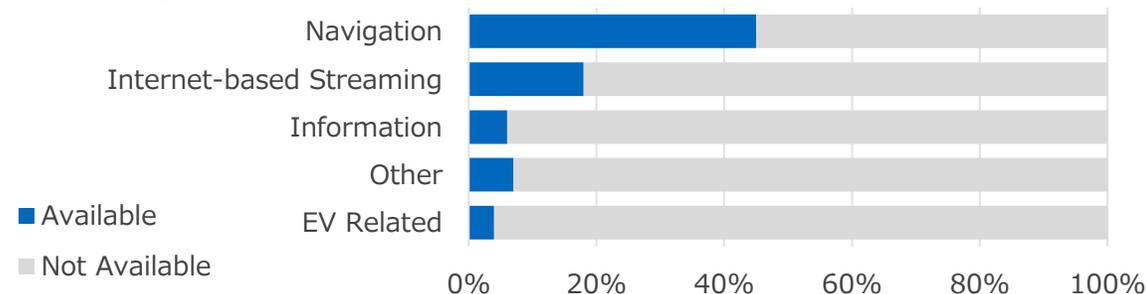
Major players for cloud content of the region

Navigation: mapbox, HYUNDAI AutoEver
Internet-based Streaming: RIDEVU, pandora, iHeart RADIO
Information: npr, AFP Rivet RADIO
Other: AccuWeather, INRIX, SiriusXM

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❸ Brands & Suppliers actively endorse in-vehicle Gen AI integration: In the news

- **More and more brands are adopting Large Language Model based ChatGPT feature, further improving their in-vehicle voice assistance feature.**

- **OEMs and suppliers are also moving a step beyond to integrate Generative AI, to create newer use-cases inferred from existing data sets.**

KIA KIA uses Gen AI for voice assistants	**STELLANTIS SoundHound AI** Stellantis set to become a Gen AI brand		**cerence NVIDIA** Supplier partnership taking Gen AI a notch ahead
• **KIA is using ChatGPT (generative AI model) in its latest all electric model – EV3.** • **KIA EV3** with ChatGPT technology will be placed on the market in **Korea in July 2024**, followed by **Europe later in the year, and then USA**. • **Kia has modified the ChatGPT AI model to customize vehicular functions for customers. The modifications allow users to** plan trips and control aspects of the vehicle through the **new Kia voice assistant.**	• **Stellantis, in partnership with SoundHound, is** integrating ChatGPT enabled SoundHound Chat AI voice assistant into **Alfa Romeo and Citroen vehicle across multiple European markets.** • The SoundHound AI voice assistant gathers patterns, seamlessly recognizes human speech and uses generative AI to support enjoyable, informative conversations that flow.	*Stellantis and SoundHound partner to bring voice AI into Stellantis brands in Europe*	• **Cerence**, an AI-powered mobility solution provider is using **NVIDIA's cloud and edge technology expertise to refine in-vehicle experience.** • **Cerence's development of automotive-specific Cerence Automotive Large Language Model serves as the foundation of NVIDIA's in-car computing platform, NVIDIA Drive.** • **Cerence uses NVIDIA DGX Cloud on Microsoft Azure cloud platform**, to provide access to latest NVIDIA architecture for peak performance in AI workload training.

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❸ Brands & Suppliers actively endorse in-vehicle Gen AI integration: Going Deeper

SBD PERSPECTIVE:

- **The future of connected services is highly driven to improvise user experience and convenience, in which AI plays a primary role.**

- **Capability of OEMs and suppliers to be able to innovate, deploy and integrate the evolving trends and use-cases of AI in a timely manner should be key priority, solely addressable by striking the right partnership to suit OEM/supplier vision.**

Virtual personal assistants is leading among all input HMIs
(Source: 616 – Digital Cockpit and Infotainment Guide – HY2 2024)

93%
US **models come with an Internet-based VPA**

90%
European **models come with an Internet-based VPA**

77%
China **models come with an Internet-based VPA**

Input HMI Ways to interact with the central infotainment display or ICs	Virtual Personal Assistants (VPAs)	*Integration of ChatGPT and other LLM software help the systems learn user preferences over time. This makes the infotainment experience more personalized and tailored to individual needs*
	Handwriting Recognition	*These systems have become intuitive over time and understand natural handwritten inputs in uppercase, lowercase, cursive and even distorted letters*
	Gesture Recognition	*Gesture-based input HMIs haven't picked up since their introduction by BMW in 2015 due to the need of additional hardware (driver-facing camera) and distraction issues*

- OEMs tend to offer multiple input HMI options, with **voice recognition being the most common feature**, followed by central display buttons. Some premium OEMs also offer a touchpad or central controller to navigate the infotainment menu.

- Some European and US brands **(Volkswagen, Alfa Romeo, DS, Peugeot)** are integrating AI-based chatbots and incorporating the latest LLM technology into their next-generation voice-interaction systems.

- Chinese brands haven't announced any 3rd party LLM integration, instead, some brands (BYD, Zeekr, NIO) **are working on their proprietary systems (in-house)**

④ More ADAS features unlocked through OTA updates: In the news

- **The number of models with OTA update capabilities has risen in the last few years. This unlocks more features for customers over the entire model lifecycle and opens new avenues of revenue generation for automakers.**

- **Infotainment and ADAS-related OTA updates remain the most popular choices. As automakers gear up to tap the potential of higher levels of autonomy, ADAS and Autonomous Driving updates will become even more frequent.**

Drive Pilot SAE L3 piloted driving gets a speed boost	**Tesla brings hands-off driving in the US through the latest software update**	**Xiaomi SU7 gets valet parking through OTA**
• Mercedes-Benz's **Drive Pilot will soon be able to operate at speeds up to 95 km/h,** which makes it the fastest SAE L3 piloted driving system. • The upgrade is available only for German motors ways, and customers with **eligible models can get it via an OTA software update** or a dealership visit. • The re-certification by Germany's Federal Motor Transport Authority is expected by the end of 2024, after which sales can start at the beginning of 2025.	• Tesla's June software OTA update (FSD 12.4.1) **enables hands-off, eyes-on assisted driving (only in USA)** and improved autopilot suspensions. • The system requires the drivers to always pay attention to the road which will be monitored by a driver-facing camera. The new update also upgrades the automatic parking system. • The update was initially rolled out to selected Tesla employees followed by members of the public (as per the news reports).	• The latest software upgrade (HyperOS version 1.1.2), unlocks new features like wireless Apple CarPlay and **the first end-to-end valet parking technology**. • The valet parking function improves automated parking efficiency. With a maximum speed of 23km/h, the vehicle can find an empty parking space when near the target parking space. It can also reverse to avoid when meeting other vehicles in narrow roads.

End-to-end valet parking in Xiaomi SU7

❹ **More ADAS features unlocked through OTA updates :** Going Deeper

SBD PERSPECTIVE:

- **ADAS OTA updates become paramount as many automakers consider going from 'hands-on' to 'hands-off,' and some have committed to their SAE Level 3 timelines. Many models, already in series production, are 'hardware-ready' for SAE L3.**

- **Once regulatory requirements are met, many brands can become SAE L3 capable, provided the delivery execution, frequency, and seamlessness of any OTA updates are aligned with customer expectations.**

Recent history of OTA updates for automakers
(Source: 638 OTA and Software Guide)

OEMs Count	14	10	9	11

Count of the OTA updates

Chart values (stacked bar, bottom to top):

Quarter	Infotainment	ADAS (Chassis)	Comfort/Body/Cabin	Powertrain	Passenger Safety	Security (Cyber)	Bug fixes
Q4 (2023)	149	74	102	18	10		129
Q1 (2024)	57	31	44	39	4	13	91
Q2 (2024)	68		2	25	14	5	29
Q3 (2024)	102	27	50	12		17	97

Quarter	Q4	Q1	Q2	Q3
Year	2023	2024		
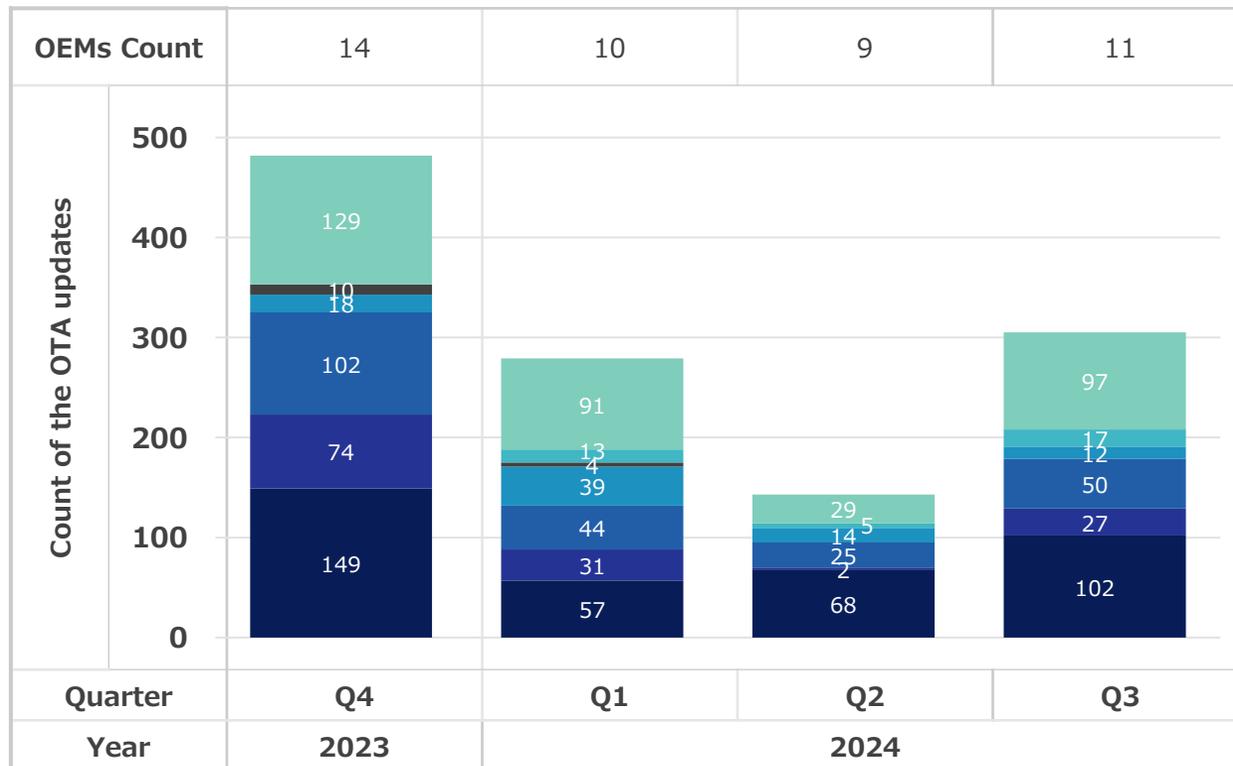
Some brands that issued ADAS-related OTA updates recently

TESLA · VOLVO · Ford · Mercedes-Benz · LUCID

Legend:
- Infotainment
- ADAS (Chassis)
- Comfort/Body/Cabin
- Powertrain
- Passenger Safety
- Security (Cyber)
- Bug fixes

❺ SAE L4 activities pick up as more companies seek commercial approvals: In the news

- Despite minor setbacks due to the ongoing robotaxi crash investigations in the US, the AV industry is marching ahead. While the new entrants highlight a competitive landscape to revolutionize urban transportation, the incumbents get one step closer to large-scale deployment.
- Advances in sensor technology, AI, and supportive regulatory frameworks are further driving the growth of robotaxi and last-mile delivery that fall under the ambit of SAE Level 4 autonomy

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Mercedes-Benz gets SAE L4 testing permit in Beijing

- Mercedes-Benz is the **first non-Chinese brand approved to test SAE L4** autonomous driving on designated roads in Beijing.

- Previously, Mercedes-Benz were approved for SAE L3 conditional automation (December 2023).

- Two retrofitted Mercedes-Benz S-Class sedans, equipped with lidar, millimeter-wave radar, and cameras, will be used as SAE L4 test vehicles.

- As of September 2024, **no Chinese models are commercially approved for SAE L3.**

Pony.ai gets closer to mass commercialization

- **Pony.ai, Toyota China, and GAC Toyota** announced a joint venture with a total **investment of more than RMB 1 billion** to promote the large-scale production of L4 robotaxi.

- Once registered, the joint venture will launch Pony.ai 4X vehicles on the Chinese market in the first phase.

- After the vehicles are produced, they will be connected to Pony.ai's robotaxi operating platform to launch **fully unmanned driving travel services in China's first-tier cities.**

Cainiao to deploy L4 AVs for public commute and delivery

- Alibaba-backed Cainiao's **L4 AVs are officially on sale** and will be deployed at scale to facilitate parcel deliveries between delivery stations and pick-up stations on public roads.

- In Hangzhou's Yuhang District, a fleet of more than **20 Cainiao AVs are already handling last-mile deliveries**.

- These vehicles account for **more than 30% of the station's deliveries**, each handling at least **1,500 packages daily.**

Pony.ai Bozhi 4X robotaxi concept

# ❺ SAE L4 activities pick up as more companies seek commercial approvals : Going Deeper

SBD PERSPECTIVE:

- SBD believes that while the SAE L4 deployment on 'personal' vehicles may not become a reality anytime soon, there is enough evidence of technological developments, regulatory frameworks, demand, and commercialization of SAE L4 transportation.
- It is just a matter of time before incumbents of the L4 industry (e.g., Pony.ai, Cruise, May Mobility, nuTonomy, Nuro), that have been conducting rigorous testing in the last five years, announce mass-scale commercialization. It may require companies to look for longer term returns, as many of these may not be profitable initially.

Robotaxi development
(Source: 815 – L4 Autonomy Forecast)

Robotaxi car parc forecast

Legend: ■ China ■ USA ■ EU
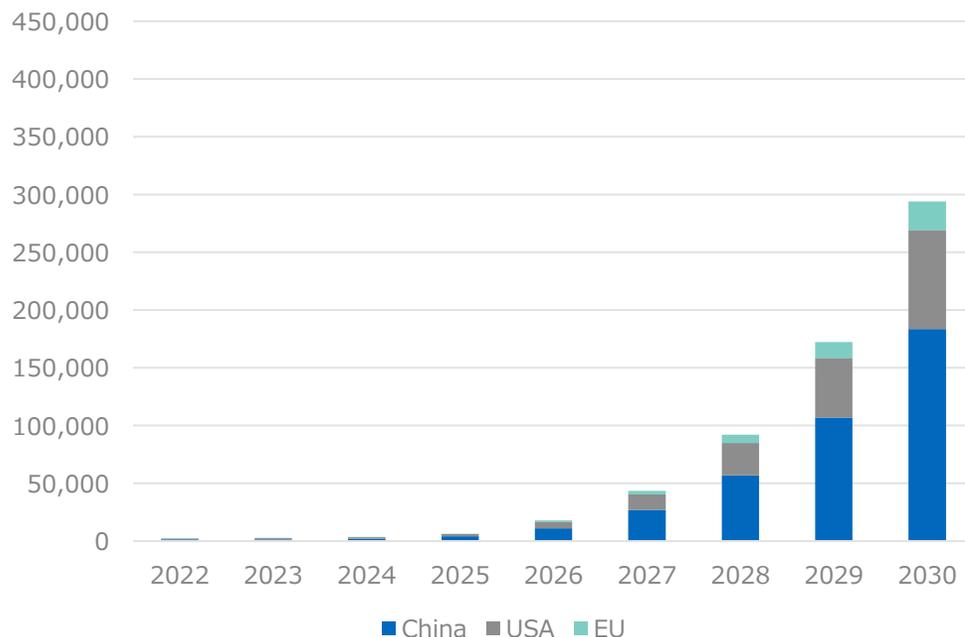
China edges out the other regions in the robotaxi race

As far as robotaxi technologies are concerned, there are no evident differences between the countries. The main reasons why China will be leading the robotaxi sector include:

1) The large taxi market and ongoing urbanization.
2) Relatively more supportive regulations with higher coverage of operation zones.
3) Active acquisition & investment in the sector.
4) Push from tech giants and Government.
5) The continued construction of new campuses and transport infrastructure provides great potential for expanding the pilot fleets.

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❻ Lidar is coming to the mainstream, but not without hurdles : In the news

- **Lidar sensors are coming to more production models due to their reduced cost, improvised technology, and automakers' commitment to becoming SAE L3 capable. One common denominator between all commercial SAE L3 models is a long-range lidar.**

- **Conversely, it wouldn't be an overstatement to say that models with lidars are best positioned to go SAE L3 than those that don't have lidar units.**

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INNOVIZ TECHNOLOGIES — Innoviz announces a new automaker partner (unnamed) for its lidar

- Innoviz collaborates with an automaker to advance its L4 autonomous vehicle capabilities. After the commercial agreement is approved, **series production will commence within a few months.**

- The **short-range lidar** from Innoviz will be integrated to the automaker's **Level 4 autonomous driving platform.**

- Innoviz already has partnerships with multiple brands (including BMW).

SEYOND — Seyond offers a windshield-mounted lidar

- Seyond and Wideye have collaborated to solve major hurdles for in-cabin integration, such **as limiting performance drop with windshield installation angle** and having an adequate heat and noise profile in a small form factor.

- The **windshield is considered a better position for lidar sensor** integration, given its high mounting position, low impact on vehicle design, and **ability to protect sensors from the external environment.**

- **The solution will be market ready by the end of 2024.**

Windshield-mounted lidar by Seyond

Mobileye is not interested in lidar development anymore

- Mobileye has put an **end to the internal production of frequency-modulated continuous wave (FMCW) lidar.**

- As per Mobileye, *"next-generation FMCW lidar is less essential to our roadmap for eyes-off systems."*

- The FMCW lidar R&D unit will be wound down by the end of 2024, affecting about 100 employees. Operating expenses for the FMCW lidar R&D unit are expected to **total approximately $60 million in 2024.**

❻ Lidar is coming to the mainstream, but not without hurdles : Going Deeper

SBD PERSPECTIVE:

- Until a few years ago, the high cost and poor visual integration options made it impossible for lidar sensors to expand beyond pilot trials. The need for volume production and solid-state technology has brought down the price to a few hundred dollars.

- SBD believes that lidar is a 'must-have' for those aiming for SAE L3 and beyond. It complements the existing sensor suites and makes the overall perception robust. That is not to say SAE L3 is impossible without lidar (e.g., Tesla), but a system without lidar may fall short of those with lidar integration.

Use of Lidar is growing but scalability will remain a challenge
(Source: 534 – ADAS Guide)
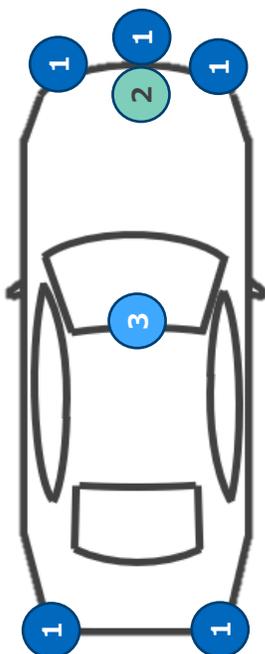
> **...Volvo EX90 is born electric, born with a lidar**
>
> *The world will look back on this moment in the same way as Volvo's introduction of the modern seatbelt.*
>
> **Austin Russell**
> **CEO, Luminar**

Chinese startup EV makers are introducing lidars in anticipation of government approval on SAE L3.

A few premium brands in the US and Europe are introducing lidars, but only on flagship models.

Lidar is sensor of choice for SAE Level 3
Brands that are prioritizing 'hands-off, eyes-off' piloted driving all have long-range lidars (except Tesla).

Latest innovations
New windshield-mounted lidars make it possible to place the lidar securely concealed behind the glass preventing wear and tear.

Rapid cost reductions
Cost of lidars have come down drastically but is still not 'economical' enough for volume and budget brands, or beyond flagship models of premium brands.

7 Majority automakers backtrack EV goal : In the news

- **Having set a high ambition at the start of the automotive electrification era, 2024 has been a corrective year in terms of major OEMs reviewing EV roadmaps toward 2030.**

- **Amidst deferment in EV production plan, OEMs that lack readiness to adapt to the changing landscape of newer technology and supply-chain could further add to the ongoing EV delay.**

Full electrification is Key to Volvo, amidst EV goal adjustment	Toyota adjust EV production plan by 30%	Evolution is the reason for delay in Stellantis EV sales	Ford actively adjusts EV goal to suit business
• Volvo's **long-term goal is to become a solely EV Automaker and** reach net zero greenhouse gas emissions by 2040. • However, with a tweak in the electrification plan, **Volvo aims to achieve 90 to 100% of global sales to be EV or PHEV by 2030,** with a 0 to 10% buffer for limited number of mild hybrid models. • **Volvo's EV-only share stands at 26% (of the total sales of its lineup)** and in conjunction **with PHEV, accounts to 48% of global sales**	• From the **initial plan of 1.5 Million EVs by 2026**, Japan's largest automaker Toyota **lowers EV plan to 1 Million by 2026.** • The new plan includes building 400,000 EVs in 2025, followed by 1 Million in 2026, while expecting a big jump in sales in the meantime. • Toyota parallelly invests to boost domestic battery production amidst Japan's plan to not rely on China or South Korea.	• Two of Stellantis' models **Citroen e-C3 and Peugeot e-3008 face challenge in line-up refresh, causing delay in production of these EV models.** • Stellantis' flagship electric model, the Citroen e-C3, falls **months behind schedule owing to final software checks for use in mass production.** • Peugeot e-3008 has encountered an **issue with mass production due to component problems in the battery vehicle's powertrain.**	• **Ford accepts to being 'too ambitious'** in terms of going all-electric by 2030. • Ford states the reality of high battery cost, unprepared consumers, and exit of government incentives to be the primary cause for delayed EV acceptance. • Ford **renews its focus on hybrid powertrains** and **strategizes a new 'multi-energy' platform** to preserve Ford's sales in European auto industry.

❼ Majority automakers backtrack EV goal : Going Deeper

SBD PERSPECTIVE:

- **As addressed in our latest release of 'Electric Vehicle Guide – 623 ', deferment of EV goals is a trend observed in the USA and European and is as a result of revoked government incentives, high priced batteries, unavailable powertrain-related components and software-issues.**

- **Readiness towards adhering to the evolving supply-chain and adapting to changing landscape of strategies and solutions should be the key plan of action for OEMs.**

Deferments on EV goals might delay the road to carbon-neutral
(Source: 623 – Electric Vehicle Guide – HY2 2024)

OEM Brands	EV models committed	Vehicle Lineup Electrification	Carbon Neutral	Recent Announcements / Concerns
Ford	40	40% (2030); 100% (EU - 2035)	2050	Ford abandons goal to go all-electric in Europe by 2030
GM	30	40% (US- 2025); 100% (2035)	2040	GM lowers EV production targets amid slow demand in US
Mercedes	10	50% (2030) Where market condition allows	2039	Mercedes-Benz delays electrification goal
Nissan	23	60% (2030)	2050	None
Renault	10	100% (EU – 2030); 90% (2030)	2050	None
Stellantis	75	31% (US -2025), 35% (EU - 2025); 50% (US 2030), 100% (EU - 2030)	2038	Stellantis said to face launch delays for key new EV in Europe
Toyota	30	40% (EU - 2025),15% (NA - 2025), 10% (Japan - 2025)	2050	Toyota cuts 2026 EV production goal by a third as global demand softens
Volkswagen	70	20-25% (2025); 40% (2030); 100% (EU - 2033)	2050	Volkswagen delay EV production on new models
Volvo	-	30% (2025); Over 90% (2030)	2040	Volvo Cars adjusts electrification ambitions; aims to reach net zero greenhouse gas emissions by 2040

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⑧ Boost in EV charging infrastructure evident across regions and OEMs : In the news

- **Irrespective of the variability observed in the EV auto industry, OEMs are actively assembling advanced charging infrastructure solutions or partnering with providers to simplify, and therefore encourage, the EV transition.**

- **Rest of the world regions are starting to explore smart charging technologies, with Australia set to deploy the technology of V2G.**

Ford's prioritizes consumer ease amidst EV rumble

- Ford has analyzed the struggle behind owning an electric vehicle and is providing solutions to aid consumers.

- **Ford Power Promise** supports consumers with **complimentary home chargers, expert installation and BlueOval Charge Network at no additional cost.**

- Additionally, adding to Ford's charging solutions, is **Ford Pro commercial charging division with new Series 2 AC Charging Station** for Ford and non-Ford Vehicles.

Ford Power Promise – Ford Charge Station Pro

Toyota invests to improve charging access

- **Toyota Motor North America supports buildout of its high-powered charging network by investing in IONNA**, with seven other automakers.

- This latest investment will allow Toyota and Lexus customers to access public network of DC fast chargers, that IONNA is set to deploy by the end of 2024.

- **IONNA plans to install its 1st batch by 2024, followed by at least 30,000 charging ports in North America by 2030.** Stations will include **both NACS and CCS connectors** to support all BEV drivers.

Australia prep to adopt V2G

- **V2Grid Australia** is set to launch the country's **first V2G EV charger in South Australia by late September 2024.**

- With this electrification transition, V2Grid Australia aims to aid smart charging technology to address economic and environmental problems.

- V2G Australia introduces a **PPGP model (i.e. Park-Plug-Get Paid),** allowing EV drivers to **earn** based on live market electricity rate **by discharging vehicle electricity back to the grid.**

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⑧ Boost in EV charging infrastructure evident across regions and OEMs : Going Deeper

SBD PERSPECTIVE:

- **The rate of adoption of electric vehicles is gradual due for multiple reasons. Those reasons include vehicle price and inconvenience related to public charging.**

- **While vehicle price will eventually reduce, the goal of OEMs in conjunction with CPOs should be to improve access to charging facilities in order to give consumers the confidence to purchase an EV.**

Brands developing their own charging network- Europe
(Source: 217 EV Charging and Infrastructure Guide – HY1 2024)

Overview

Automakers are developing their charging networks for electric vehicles for several reasons. Firstly, it helps alleviate range anxiety for potential customers, as having control over the quality and availability of charging stations ensures a reliable and convenient charging experience. This makes electric vehicles more appealing and addresses a significant concern for buyers. Secondly, developing charging networks gives automakers a competitive advantage by differentiating themselves from competitors. In addition to focusing on the quality of their vehicles, they can now also emphasize the quality of their charging infrastructure, attracting more customers in the growing electric vehicle market.

Last year, Tesla emerged as the leader in the USA in terms of a comprehensive network of fast chargers. Moving ahead, **IONNA led by seven automakers (BMW, Hyundai, Honda, KIA, Stellantis, General Motors and Toyota)** will work together to expedite the development and deployment of more charging networks. As per the roadmap of installing 30,000 charging points which will support both CCS and NACS connectors, with first ones anticipated to open in the United States in 2024 and followed by Canada.

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9 Governments mull new cybersecurity laws : In the news

- **The availability of new digital features has exposed connected cars has made them vulnerable to external cyber security threats. Security researchers have found several reasons why a hacker with malicious intent can and would sabotage connected car systems.**

- **Governments worldwide are taking note and working with the industry to create the necessary regulatory frameworks to ensure that appropriate attention is given to the cybersecurity of connected vehicles.**

| US considers banning Chinese connected car technology/software	Multinational meeting held in the US to discuss automotive cybersecurity	New UK government proposes a cybersecurity bill
• The U.S. Commerce Department proposed prohibiting **certain Chinese software and hardware in connected vehicles** on American roads • If the ban is introduced, this would force the American and foreign brands operating in the **USA to remove Chinese software and hardware from the vehicles** sold in the country. • The ban will also be extended to **Chinese companies seeking self-driving testing** permits in the US.	• In early July, leaders from the White House and State Department met with representatives from several **countries to discuss security risks posed by connected cars**. • Officials from the **USA, Australia, Canada, European Union, Germany, India, Japan, Republic of Korea, Spain, the United Kingdom**, and other partner nations exchanged views on the data and cybersecurity risks associated with connected vehicles and specific components.	• The new British government is set to introduce a new bill (Cybersecurity and Resilience Bill) that aims to strengthen defenses and ensure that more essential **digital services are protected.** • The bill was highlighted in the British Prime Minister's first speech and will be based on **NIS 2 regulations.** • The speech also highlighted the UK Government's intention to establish legislation to **regulate the development of artificial intelligence (AI).**

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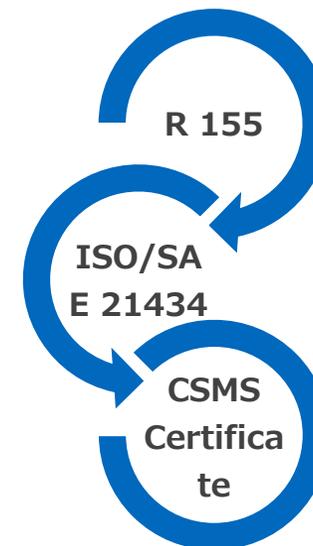
Existing automotive cybersecurity standards

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# ⑨ Governments mull new cybersecurity laws : Going Deeper

SBD PERSPECTIVE:
- **The connected car has become a focal point in rising political debates over cybersecurity globally, but particularly in the U.S. While the industry marches ahead on C-V2X deployment and 5G, government agencies are moving conversely to lock down cross-border data flows and limit the physical import of and investment in connected vehicles and components from "foreign entities of concern"**
- **This, a seeming influx in global corporate cyberattacks and espionage from malicious hacking groups, and recent publicity around undisclosed data sharing and sales by automakers will pressure regulators to strengthen cybersecurity and data protection.**

Target attack in connected cars
(Source: 905 – Cyber Intelligence Guide)

Total number of attacks by attack point
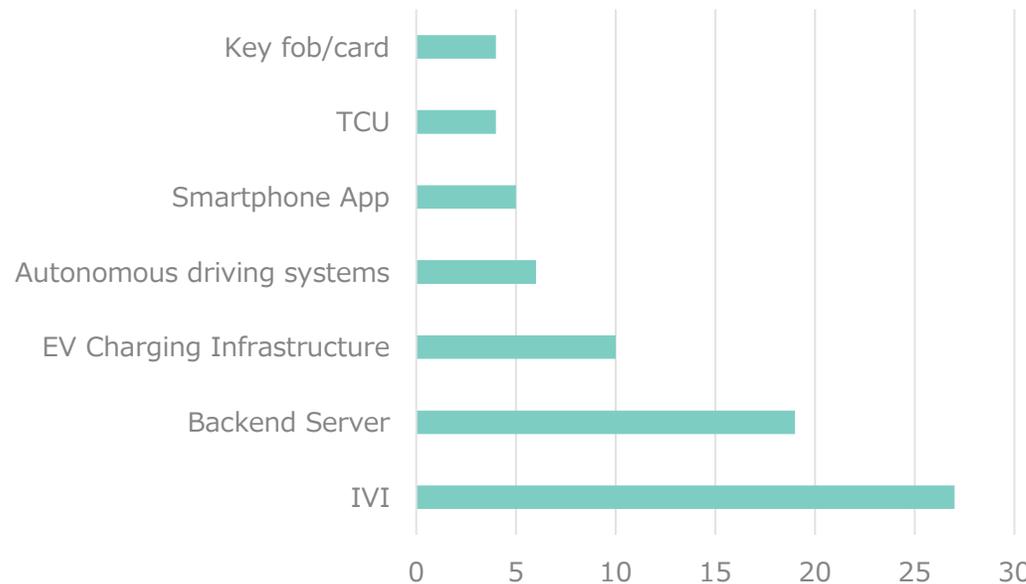
Number of Attacks by OEM
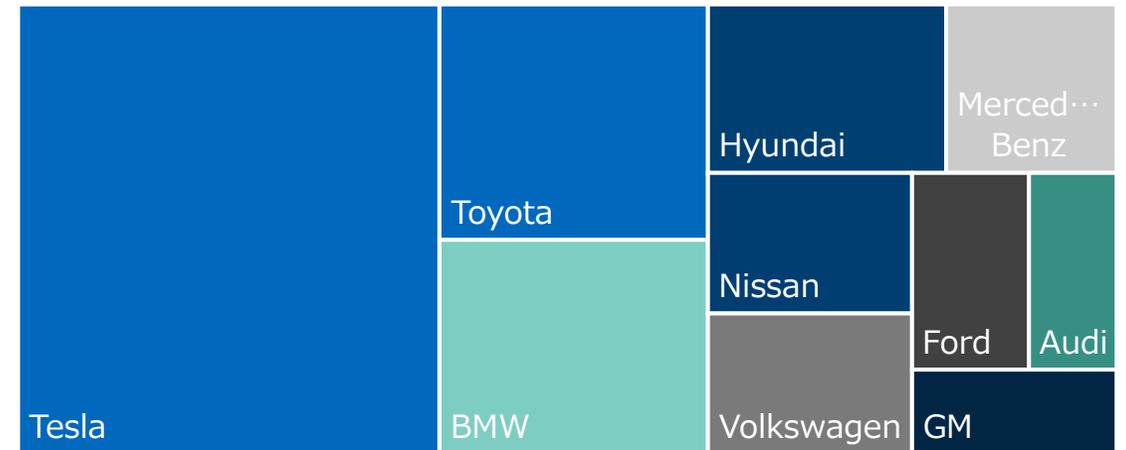
It should be noted that mostly the attacks are white-hat (security researchers) because **some black hat attacks are not reported in the public domain**.

⑩ More SDV alliances announced indicating strong market traction: In the news

The introduction of vehicles that are increasingly defined by software is disrupting value chains. The transition to software defined vehicles creates opportunities for new players and requires existing players to rethink their business operations. Automakers and suppliers are investing in R&D to find alternatives to traditional tightly coupled E/E platforms.

BMW Group joins Eclipse Foundation SDV working group

- The Eclipse Foundation SDV Working Group facilitates global collaboration on **open-source software technologies** for modern vehicles.

- According to the Eclipse Foundation, mainstream operating systems like Linux, Windows, and macOS are estimated to use much more code between each other than vehicles from any two automakers.

- BMW's in-house 'Software Factory' will be actively involved in the Eclipse SDV Working Group's projects.

Honda and Nissan sign MoU on SDV research

- The primary aim of this Memorandum of Understanding is to establish a joint research agreement for an SDV platform.

- Both companies aim to complete basic research in approximately one year and, based on the results, consider the **possibility of mass production**.

- They are promoting R&D and investment in various technologies to promote the spread and evolution of Evs and **Software Defined Vehicles** (SDVs). They will consider supplementing models from a short-term to medium- to long-term perspective.

Source: Nissan

Hyundai, Kia and Samsung form SDV alliance

- Hyundai and Kia are working on their **new infotainment platform (to be unveiled in 2026)** in collaboration with the global software center 42dot.

- Hyundai and Kia will develop technology to link SDVs and the smartphone ecosystem using **Samsung Electronics' 'SmartThings'.**

- They also aim to create an open ecosystem and develop services for convenient mobility experiences by sharing vehicle data API.

⑩ More SDV alliances announced indicating strong market traction: Going Deeper

SBD PERSPECTIVE:

- **Automakers are expediting SDV development, dramatically changing how and whom they call their 'trusted partner.' Traditionally, this has been a Tier-1 supplier, but the onset of SDVs has squeezed them out of their comfort zone. This is making way for the new entrants—tech giants, chip manufacturers, system integrators, and startups.**

- **Tier 1 suppliers may wish to reconsider any traditional perspectives. If done proactively, this will ensure continued success and enable potential growth.**

Leading OEMs see lower appeal in Tier 1 supplier capabilities
(Source: SBD Expert Analysis on Sourcing the SDV)

	Technical requirements	Key risks / pitfalls	Potential supplier support	Supplier dependency	OEM want for platform solution
Vehicle 4.0 *The Software-Defined Vehicle*	• Service oriented architecture with dynamic workload shifting	• Complexity in cloud-native / service-oriented architecture	• Specialized support for cloud-native architecture • Provide cloud-native toolchains	Little dependency in supplier	Little appetite for platform solution
Vehicle 3.0 *The Updateable Vehicle*	• Cross-vehicle software update • Domain consolidation • Spatial consolidation	• Complexity in ECU consolidation • Supplier management becomes new and huge task for OEM • Different cadences of multiple suppliers lead to delayed SoP	• There are rooms for Tier 1 to act as central integrator • Specialized suppliers may find more business opportunities		
Vehicle 2.0 *The Digital Vehicle*	• Connectivity integration • Cybersecurity regulation compliance	• Investment in connectivity	• Almost all ECU can be Tier 1-based sourcing • Alignment with OEM cybersecurity approach	Greater dependency on traditional Tier 1	More appetite for platform solution

SDV

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Major Movers

The market participants that have left a significant impact on the industry last quarter

Introduction

Top Disruptor

An organization that has had an outsized influence on the direction of mobility

Top Performer

An organization that is outperforming competitors within the mobility market
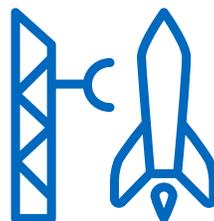
Top Newcomer

An organization that is either new or that is new to the mobility market

Top Innovator

An organization that has found a creative new way of solving a mobility pain point

Top Communicator

An organization that has been successful at clearly articulating its vision or plans

Top Disruptor: Mercedes-Benz

Mercedes-Benz has been testing higher-level autonomous driving in the USA, EU and China. Recently, Mercedes-Benz received an SAE L4 permit to test AV technology on roads in Beijing, which will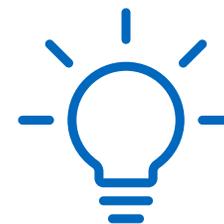 provide feedback on how approved vehicles will perform in different situations. Additionally, Mercedes-Benz is also expanding its Drive Pilot technology both in terms of functionality and model-level implementation

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Why are they Major Movers?

- Mercedes-Benz is the first non-domestic automaker to gain approval for L4 autonomous driving, positioning the brand as a key player in China.

- SAE L4 requires a complex system for perception, decision-making, and control, which could require an upgraded sensor suite, robust AI algorithms and liability transfer from the drivers to the system

- Mercedes-Benz has joined a group of 20+ companies working on self-driving cars in Beijing.

Mercedes-Benz SAE L4 approval in China

Levels of autonomous driving according to SAE J3016.
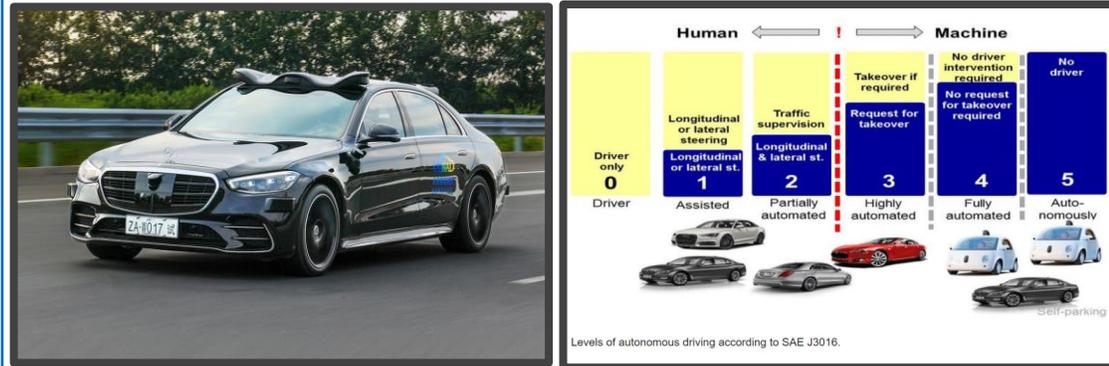
- **Mercedes-Benz** is the first non-domestic automaker to be approved to conduct SAE Level 4 urban and highway autonomous driving tests on designated roads in Beijing, China.

- **Two retrofitted Mercedes-Benz S-Class sedans,** equipped lidar, millimeter-wave radar, and cameras, will be used as SAE L4 autonomous driving test vehicles.

- Mercedes-Benz is upgrading its **DRIVE PILOT system** for conditionally automated driving at higher speeds on German motorways. The upgrade will be available for new and existing vehicles and is expected to be the fastest SAE Level 3 system in a series-production car (95 km/h).

SBD Perspective

- Mercedes-Benz will likely continue to invest in R&D to enhance its autonomous driving capabilities. This includes further refining of its sensor systems and addressing extreme weather performance.

- As regulation and infrastructure evolve, Mercedes-Benz may expand its SAE L4 operations to new markets beyond China.

- SBD believes that Drive Pilot conditional automation is likely to become available in more markets like France and more states of the USA.

Top Performer: NIO

NIO's focus on innovation and technology has set it apart from the transitional EV makers. NIO's unique selling Point lies in the fact that it doesn't just view itself as an 'EV maker' but an end-to-end battery technology provider on account of its network of battery swap stations. NIO allows EV owners to replace their depleted batteries with fully charged ones, minimizing downtime and maximizing convenience. NIO has partnered with multiple companies, leveraging their expertise to maximize its outreach, especially in European markets where NIO is a new entrant.

Why are they Major Movers?

- NIO is improving EV performance regarding electric range and user experience. The new European launch (ES8/EL8) is based on NT 2.0 and offers an extended range.

- NIO's autonomous/ADAS platform is completely developed in-house, allowing them to meet unique demands and reduce supply chain risks, providing a competitive advantage over other brands.

- Battery-swapping technology provides a faster, more convenient recharging than charge point charging.

Strategic Partnerships and technology developments

Connected	Autonomous
NIO has **partnered with Cinemo** to provide premium in-car entertainment experiences for its European customers, including movies and TV series streaming directly from the vehicle's center display.	NIO **claims the world's first 5-nanometer chip for autonomous driving is planned** to offer cameras with top-notch image signal processing (ISP) functions.

Electrification

- NIO and **Monolith collaborate on AI-driven** EV Battery testing to monitor the performance of the battery.

- NIO's Power Swap Station 4.0 features advanced technology, including Lidar, enabling faster and more convenient automatic battery swaps. It can **complete a swap in 144 seconds**.

- NIO Power received a **strategic investment of RMB 1.5 billion** from Wuhan Guangchuang Fund.

Battery swapping Partner Companies

FAW | CHANGAN | 广汽集团 GAC GROUP | CHERY | LOTUS | 江汽集团 JAC GROUP | GEELY

SBD Perspective

- NIO's investment plans in charging infrastructure will strengthen its position in Europe and the other markets it wants to enter. NIO's efforts to build partnerships in charging and battery swapping technology with seven other brands are crucial for a standardized and unified network.

- Additionally, NIO wants to position itself as a leader in the EV market by focusing on efficient charging technology in parallel with in-vehicle entertainment.

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Top Newcomer: ONVO

ONVO, a new smart electric vehicle brand from NIO, has launched its model, the L60, in the Chinese market. ONVO is focused on manufacturing affordable EVs for the mass market by pricing its model competitively at under $30,000. ONVO is designing its vehicle to meet the needs of everyday consumers by offering a balance of comfort, convenience, and range. The brand is committed to electric mobility while playing a significant role in driving the adoption of EVs in China and beyond.

Why are they Major Movers?

- As a sub-brand of NIO, ONVO leverages the parent brand's established technology by offering EVs at a more affordable price. ONVO aims to broaden the appeal of EVs.
- ONVO vehicles are equipped with powerful electric drivetrains, ADAS and intuitive infotainment systems.
- The brand has a long-term focus and aims to have 200 stores in 68 cities by the end of the year. It also includes an SUV, which will be launched soon.

Interesting features and highlights

- **New EV Platform**: The Onvo L60 series will be built on a 900V silicon carbide platform and use a Battery as a Service leasing scheme. It features a 60-kWh battery pack and offers a CLTC range of 555 km or 525 km in the single-motor configuration.
- **Luxurious interiors**: The vehicle's cabin features a 17.3" 3K resolution infotainment screen, a 13" HUD, and an 8" rear entertainment screen. It is built on the latest NVIDIA DRIVE Orin system-on-a-chip. It enables automated driver assistance, autonomous driving systems, and other features that can be updated via over-the-air software updates.
- **Charging infrastructure availability**: The Onvo L60 works only with Nio's fourth-generation swap stations. Therefore, Nio plans to complete 3000 battery swapping stations monthly so customers can access 1000 charging stations by year-end.

ONVO L60   **Image Source: Onvo**

SBD Perspective

- ONVO's entry into the automotive market is a significant leap with the potential to support the transition to EVs due to its focus on affordability with advanced technology.
- As battery-swapping technology for charging EVs is very convenient for owners, NIO's focus on expanding its automatic battery-swapping stations to ONVO will support ONVO's outreach to newer customers and grow Chinese EV market coverage.

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Top Innovator: Samsung SDI

Samsung SDI develops advanced battery technologies for electric vehicles. Their innovative approach to make smaller, lighter, and safer batteries than the ones in the industry can make EVs an attractive option for consumers. It has achieved a breakthrough in the EV market with its solid-state battery, which has a 20-year lifespan and 600-mile range with a 9-minute charging time. Partnerships with automotive brands and investment in new factories have positioned the company as a significant player in the EV battery market.

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Why are they Major Movers?

- Collaborations with automakers like General Motors solidify Samsung SDI's position in the EV market and give automakers access to large-scale production facilities.

- The company's efforts to manage Environmental, Social, and Governance aspects of sustainability include participation in the RE100 initiative, which aligns with the growing demand for sustainable EV solutions.

- The company continues to look for higher energy density batteries and improved safety.

Samsung Battery Solutions

- Samsung SDI has **introduced battery solutions** for energy storage systems including the SAMSUNG Battery Box 1.5, high-output batteries for uninterruptible power supply solutions, and lithium iron phosphate batteries.

- Samsung solid-state batteries are expected to be lighter, smaller, and safer than equivalent lithium-ion batteries. It has the potential to power electric vehicles with a **600-mile range, charge in just 9 minutes, and have a lifespan of 20 years**.

- The new battery technology boasts an impressive **energy density of 500 Wh/kg**, nearly double the 270 Wh/kg density of mainstream EV batteries.

- **Samsung SDI and General Motors will invest approximately $3.5 billion** in an EV battery plant in New Carlisle, Indiana. The plant will have an initial capacity of 27GWh, which can be expanded to 36GWh, and a start of production target of 2027.

Image Source: Samsung

SBD Perspective

- Samsung SDI's focus on advanced battery technologies which offer improvements in terms of energy density, safety and charging speed is set to revolutionize industry's battery landscape, positioning the company as a forerunner in upcoming EV battery market.

- Samsung's investment in new battery plants and strategic partnerships with Stellantis and GM across regions demonstrates its long-term commitment to expansion and global reach for its success in the EV market.

Top Communicator: Lucid

Lucid has gained significant attention for its high-performance and luxury-focused vehicles. The company's focus on sustainability and innovation has positioned it as a leader in EV technology, offering extended-range EVs that focus on efficiency and continuous improvement through software updates. With the brand's growing lineup and ambitious plan, Lucid is poised to expand its market reach (it entered Europe market last year) with its upcoming SUV and midsize platform.

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Why are they Major Movers?

- In-house development of its next-generation drive unit Atlas, focusing on the requirements and needs of the customers.

- Lucid effectively communicated its milestones, financial projections, strategic partnerships, long-term plans, and advanced technology, showcasing transparency and clarity in financial planning and growth strategy and instilling confidence in investors, stakeholders, and customers.

Lucid at 'Technology & Manufacturing Day'

- **Next-Gen Drive Unit (Atlas)**: The Atlas is in development and promises further advancements for future Lucid models. Its miniaturized drive unit improves cabin space and efficiency, allowing for longer range and smaller batteries. Advanced software controls torque, traction, and battery management for optimal performance.

- **Software Integration**: Lucid vehicles receive regular over-the-air updates (OTA) that enhance features and functionalities and keep them current.

- The Lucid Gravity will feature a **NACS charging connector** in 2025, providing access to over 15,000 Superchargers.

- **Lucid midsize platform** is scheduled to start production in late 2026 with a price under $50,000.

Image Source: Lucid

SBD Perspective

- By leveraging its advanced technology, Lucid aims to offer a midsize crossover with a competitive range and a starting price below $50,000. This move positions Lucid to compete in a popular and rapidly growing electric vehicle market segment.

- This, in addition to Lucid's attempt towards creating intuitive in-house drive unit and enhancing software technology is a progressive approach to stand-out amidst the industrial EV revolution.

Everything Else

Relevant news articles from the last quarter

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Connected News from the last 3 months

Source	Title	Date	Link
SoundHound	SoundHound AI rolls out voice assistant with generative AI to Alfa Romeo and Citroën vehicles across Europe	30/07/24	Link
Techcrunch	Kia EV3 will have an AI assistant with ChatGPT DNA	23/05/24	Link
Verge	Elon Musk wants to turn Tesla's fleet into AWS for AI — would it work?	24/04/24	Link
BMW	BMW and AirConsole celebrate in-car gaming launch	22/08/24	Link
LG	LG Launches Disney+ on Its Content Platform in Select Vehicles	22/07/24	Link
VinFast	Vinfast Becomes World's First To Launch Sony's In-Car Entertainment Service	11/05/24	Link
Automotive World	Mapbox integration in My BMW and MINI App	08/07/24	Link
Automotive World	Harman and CARIAD announce growing ecosystem with new apps within Volkswagen Group vehicles	03/07/24	Link
Automotive World	My Honda+ app to offer simpler subscription options and extend cover to all new hybrid and electric models	01/07/24	Link
Rivian	Rivian and Apple Music team up for an immersive driving experience	13/08/24	Link
PRNewswire	NNG & DACIA Team Up to Revolutionize In-Car Navigation	02/07/24	Link
Karma Automotive	Karma Automotive launches groundbreaking Karma Connect platform	31/07/24	Link
LG	LG Digital Key: Next-generation solution by 2027	02/08/24	Link
Keysight	Keysight and NXP boost car security with first Digital Key Applet	24/07/24	Link
BMW	My BMW App: Simplifying electric vehicle ownership	12/08/24	Link

Autonomous News from the last 3 months

Source	Title	Date	Link
Safe Car News	Mercedes-Benz increases limit for its Drive Pilot SAE L3 piloted driving through OTA	23/09/24	Link
Safe Car News	Lucid introduces new ADAS features via OTA update	09/09/24	Link
Not a Tesla App	Tesla's new software update brings hands-off driving and vision park assist in US	08/06/24	Link
Hao Yiche	Xiaomi SU7 OTA update adds end-to-end valet parking technology	20/05/24	Link
Safety 21	Mercedes-Benz gets a SAE L4 testing permit from Chinese government	02/08/24	Link
Safe Car News	Alibaba and Cainiao scale deployment of L4 AVs for public deployment	11/09/24	Link
Tech GMW	Pony.ai gets one step closer to L4 robotaxi commercialization	25/04/24	Link
SZJJ China	Renault Group announces partnership with WeRide	17/05/24	Link
PR Newswire	Innoviz adds a new 'automaker' partner for its new lidar	26/06/24	Link
Safe Car News	Jidu Auto unveils new V2.0 intelligent driving software	02/09/24	Link
Market watch	Mobileye no longer pursuing lidar development	09/09/24	Link
Green Congress	Luminar sentinal software kit for automakers	04/07/24	Link
Safe Car News	WeRide to bring its AVs to Uber's ride-hailing platform, starting in the UAE	25/09/24	Link
Safe Car News	Autobrains reveals Air2Road, its localization technology for automated driving	24/09/24	Link
Safe Car News	Cron AI & Lumotive unveil AI-powered solid-state LiDAR with advanced beam steering chip	17/09/24	Link
Safe Car News	Toyota & SoftBank to launch autonomous mobility service in Tokyo	10/09/24	Link
Safe Car News	Subaru installs local 5G network and tests co-operative automated driving capabilities	28/08/24	Link

Shared News from the last 3 months

Source	Title	Date	Link
Uber	Uber and Cruise to deploy autonomous vehicles on the Uber platform	22/08/24	Link
Uber	Uber and Waymo expand partnership to bring autonomous ride-hailing to Austin and Atlanta	13/09/24	Link
Mexiconow	Didi plans to bring 100,000 electric cars to Mexico	03/09/24	Link
Uber	Uber and BYD partner to accelerate global EV transition	31/07/24	Link
Uber	WeRide and Uber partner to bring autonomous vehicles to the Uber Platform, beginning in the United Arab Emirates	25/09/24	Link
Electrive	BYD EVs set to expand Grab fleet in Indonesia	30/08/24	Link
Zoomcar	Zoomcar to rev up growth with 100+ new fulfillment centers	09/08/24	Link

Electric News from the last 3 months

Source	Title	Date	Link
Electrek	Toyota slashes EV production plans by 30% as suppliers brace for impact	06/09/24	Link
Volvo	Volvo Cars adjusts electrification ambitions, remains committed to fully electric future	04/09/24	Link
Bloomberg	Stellantis faces EV model delays in challenge to lineup refresh	31/07/24	Link
Ford	Ford Pro expands charging solutions revealing new lineup of chargers for commercial customers	29/08/24	Link
Kia	Kia Announces Platform Beyond Vehicle Business at CES 2024	01/08/24	Link
The Driven	Australia's first public vehicle-to-grid charging station to open soon	14/08/24	Link
Toyota	Toyota invests in EV Charging network IONNA to enhance charging access for customers	10/07/24	Link
NIO	NIO Hosts Power UP 2024	20/08/24	Link
Carnewschina	Onvo cars to access 1,000 swapping stations by year-end	04/08/24	Link
Economymiddleeast	Samsung debuts EV battery with 600-mile charge in 9 minutes, 20-year lifespan	02/08/24	Link
Samsung SDI	Samsung SDI introduces next-generation ESS battery solutions at renewable energy plus 2024	09/09/24	Link
Samsung SDI	Samsung SDI and General Motors finalized an agreement to establish a joint battery venture in the US	08/08/24	Link
ChargePoint	ChargePoint releases industry-first AI solution to enhance driver support and improve network reliability	29/08/24	Link
ChargePoint	ChargePoint eliminates EV charging connector confusion with omni port adaptable charging solution	08/08/24	Link

Electric News from the last 3 months

Source	Title	Date	Link
Autofutures	NIO Europe & Monolith start collaboration on AI-Driven EV battery testing	01/20/24	Link
Melexis	NIO selects Melexis as a strategic current sensor chip supplier	06/06/24	Link
Rivian	Riviab R1 GEN 2 carbon footprint reports	19/09/24	Link
Reuters	Nissan to buy back 5% of its own shares from partner Renault	26/09/24	Link
Blink	Blink Charging expands EV charging network in USA	25/09/24	Link
Mydrivers	Zeekr revolutionizes EV charging with phone-free experience	24/07/24	Link
Whitehouse	Rhode Island to add 200 EV Charging Stations	26/08/24	Link
Allego	Allego simplifies EV charging with Plug & Charge	02/09/24	Link
CnEVPost	NIO partners with Sinopec for an enhanced EV Charging experience	25/09/24	Link
Enphase	Enphase expands EV charging with NACS connector launch	08/08/24	Link
Reuters	Xpeng and Volkswagen Partner to Accelerate EV Development in China	22/07/24	Link
Siemens	Siemens and E.ON join forces to accelerate EV adoption	16/09/24	Link
Noodoe	Skoda and Noodoe partner to Expand EV Charging Infrastructure in Taiwan	28/08/24	Link

Secure News from the last 3 months

Source	Title	Date	Link
Livemint	US mulls ban on Chinese software and hardware in connected cars	23/09/24	Link
Thecord	White House officials meet with allies, industry on connected car risks	02/08/24	Link
Datamatters	UK proposes New Cyber Security and Resilience Bill to Boost the UK's Cyber Defences	09/08/24	Link
PRnewswire	Sasken and Trustonic partner to deliver advanced automotive cybersecurity	30/08/24	Link
Bosch	Bosch Road Hazard Service: A Safety Net for Drivers	10/09/24	Link

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.

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Book a meeting

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