

中国国际展览中心

新时代·新汽车
Driving to Smart Mobility

Auto China 2024

2024(第十八届)北京国际汽车展览会
2024 BEIJING INTERNATIONAL AUTOMOTIVE EXHIBITION



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April 2024 3000g-24
Beijing Auto Show Flash Report
The 18th Beijing International Automotive Exhibition

About SBD Automotive

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

Our expertise:

Connected

Autonomous

Shared Mobility

EV

Cybersecurity

Anti-theft



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Our role:

As our industry faces...

Uncertainty



We provide our clients with...

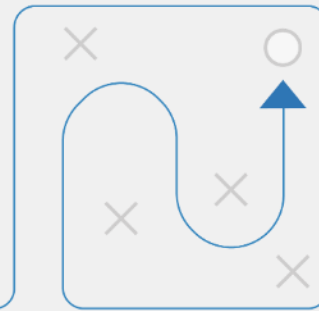
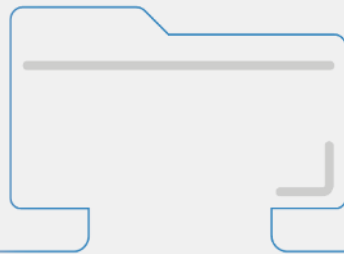
Data



Insight



Advice



Seeing Beyond Data

Turning data into actionable advice



Research Portfolio



Consulting Services



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2024 Beijing Auto Show Flash Report

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Introduction

A brief introduction to Beijing Auto Show and the report



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The 18th Beijing International Automotive Exhibition

The 18th Beijing International Automotive Exhibition is the first A-level auto show in China this year, themed "Driving to Smart Mobility". It focuses on showcasing the innovative achievements of the automotive industry. Among them, there are 117 vehicle debuts, 30 vehicle debuts from multinational companies, 41 concept cars, and 278 new energy vehicles.

Against the backdrop of transformation in the automotive industry, consumers are placing higher demands on vehicle intelligence and new energy types. Cross-border cooperation in areas such as chips and batteries has become an important force driving the rapid development of the automotive industry. At the 2024 Beijing Auto Show, companies along the chip and battery supply chains exhibited.

SBD China sent three team members to the exhibition, including product experts and analysts from the SBD China office, to observe the show firsthand.



Report Focus

SBD's 2024 Beijing Auto Show report will focus on the new vehicle models, trends, and technologies showcased at the exhibition, while also analyzing how they will influence the development of the automotive industry.



SBD Event Report Series

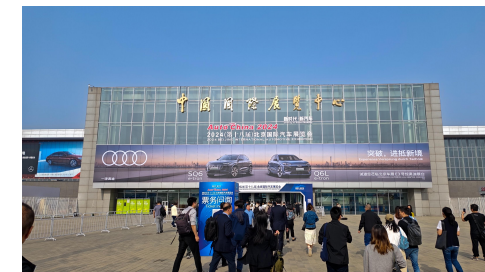
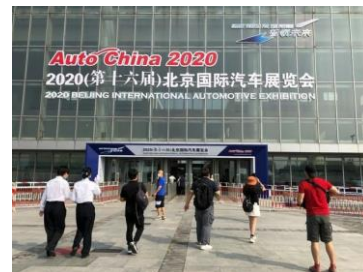
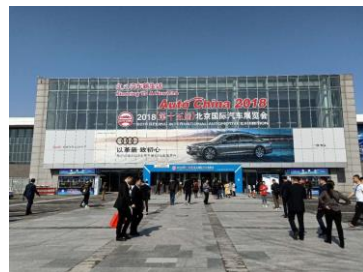
The SBD Event Report provides comprehensive insights into the full scope of what the Barcelona event offers the automotive industry, taking a deep dive into its reveals and trends, alongside key talking points, announcements and in-depth analysis.

MWC 2024 is part of a Premium Event Report Series also including CES and Beijing Auto Show.

[Learn more](#)



How did Beijing Auto Show 2024 compare to previous years?



2016

2018

2020

2022

2024*

Theme

Innovation Reform

Define the new automotive lifestyle

Leading the Future with Intelligence

Driving to Smart Mobility

Number of Attendees

825K

820K

530K

TBA

Number of Exhibitors

1600

1200+

1000+

1500+

Top themes

- BEV make their debut.
- Smart connectivity and autonomous driving make their first appearance.

- New energy was the main theme of the auto show.
- Domestic OEMs begin to transform and upgrade.
- Smart and connected vehicles.
- Biometric technology is integrated into vehicles.
- Level 1 autonomous driving is introduced.

- Features on Demand services.
- Augmented Reality technology is integrated into vehicles.
- HD-maps are used in vehicles.
- Advanced driving assistance features.
- Battery swapping becomes a new business model.

Cancelled due to COVID-19 Pandemic

- Large language models enhance the cabin.
- Penetration of AR-HUD increases.
- Cabin control is further delegated to rear seat screens.
- Availability of rearview cameras increases.
- Digital chassis.
- Integrated cabin and ADAS domain controllers.
- Availability of 800V platforms increases and prices decline.
- Charging networks expand.
- End-to-end large language models.

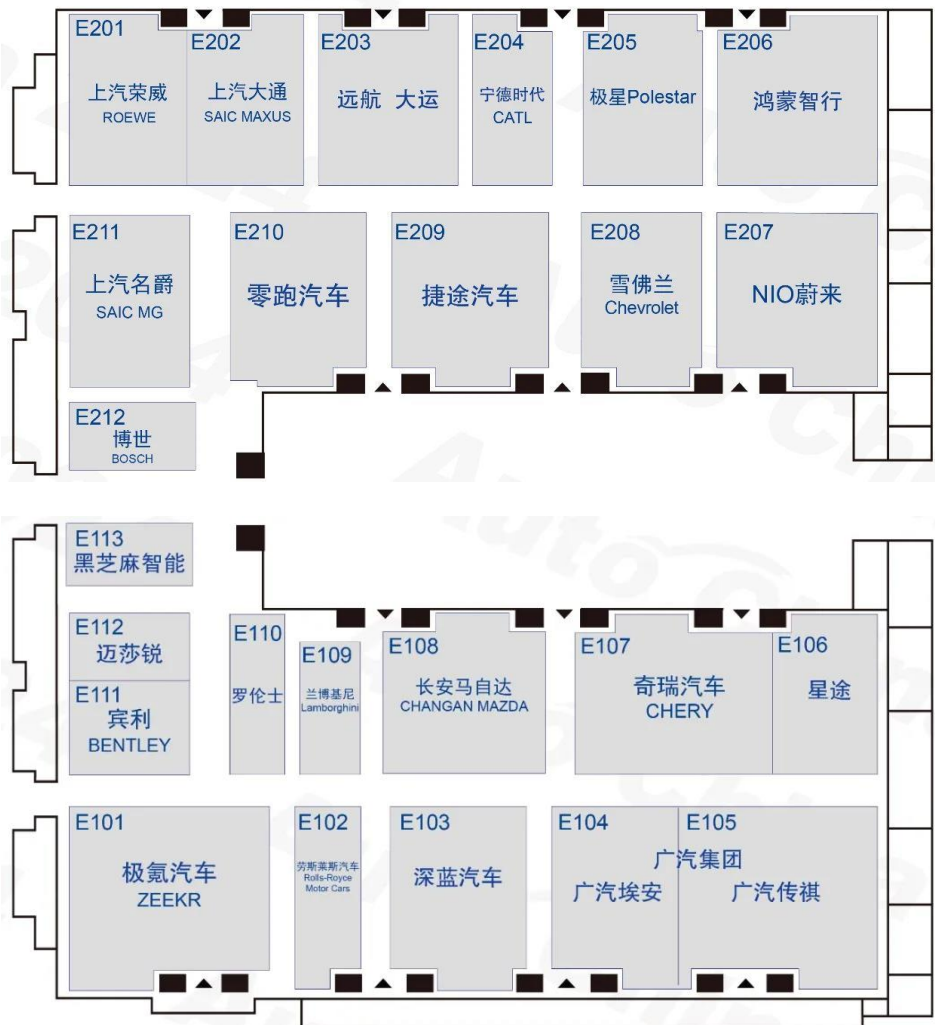


*Apr.25th-May.4th, 2024



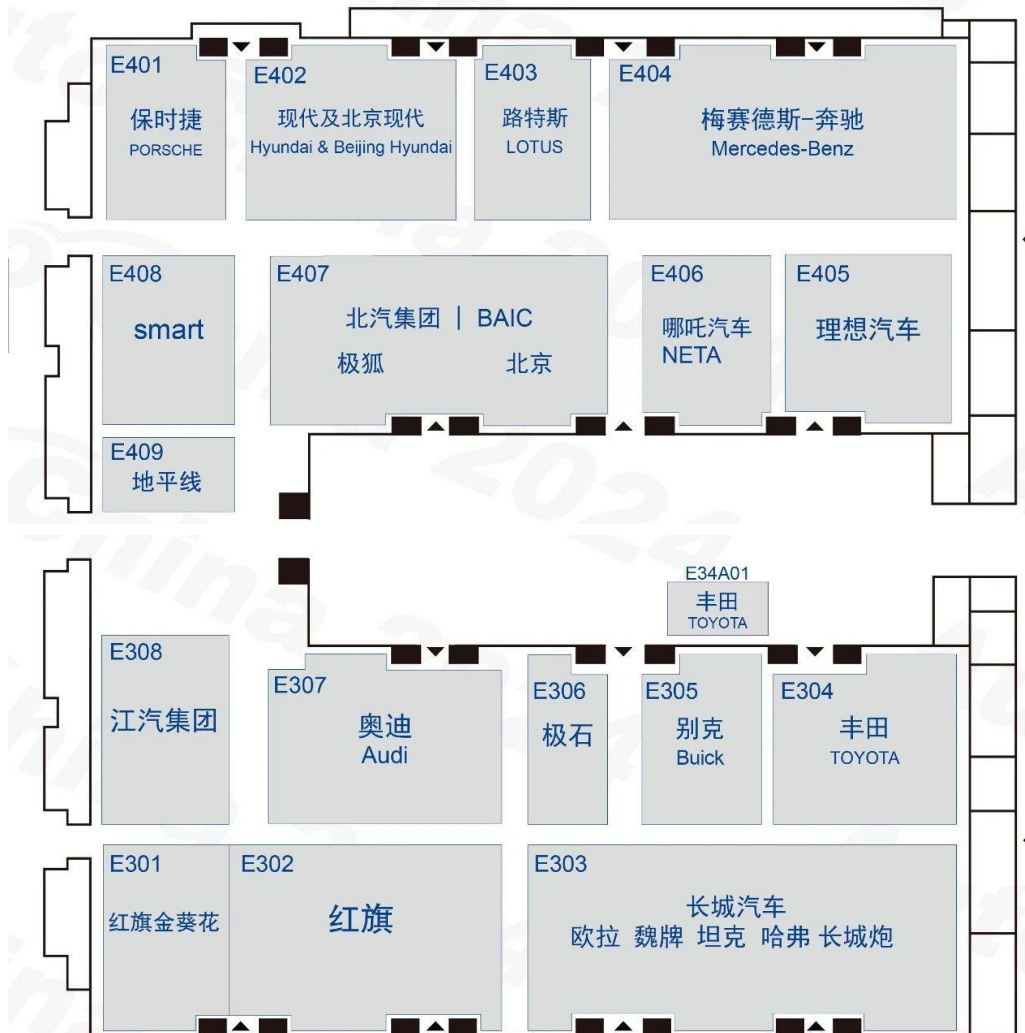
OEMs

Hall E₂馆



Hall E₁馆

Hall E₄馆



Hall E₃馆



OEMs

Hall W₂馆



Hall W₄馆



Hall W₁馆



Hall W₃馆

Suppliers



E1-W 智驾未来展区



E1-W 智驾未来展区



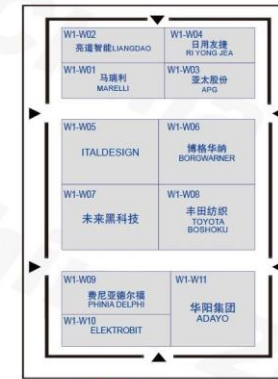
E3-W 智驾未来展区



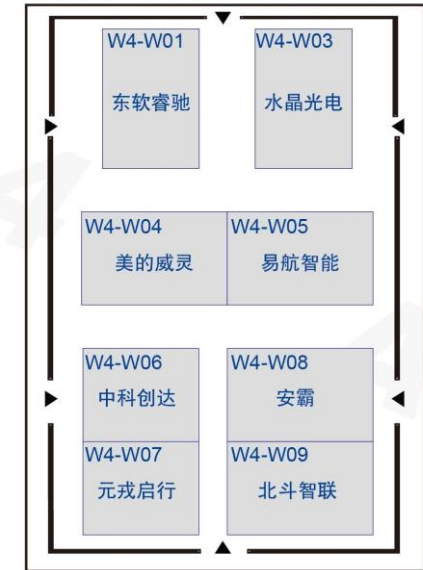
E3-W 媒体展区



W1-W 零部件展区



W1-W 零部件展区



W4-W 零部件展区



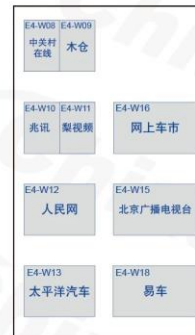
E2-W 智驾未来展区



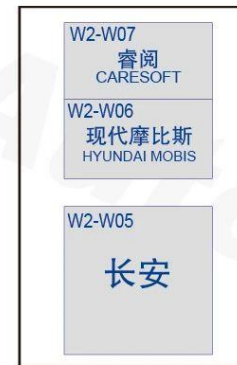
E2-W 智驾未来展区



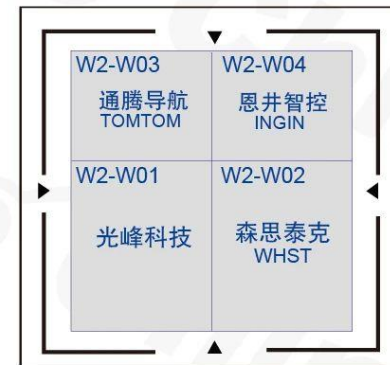
E4-W 室外展区



E4-W 媒体展区



W2-W 零部件展区



W2-W 零部件展区



Key Insights

Key insights from the 2024 Beijing Auto Show



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Key Insights (1/2)

Can traditional fuel-power vehicles still dominate the market?



Audi Q6 e-tron premiered



Volkswagen's Tiguan L Pro premiered

- The automotive market in China has undergone big changes in recent years, driven by the rise of new energy vehicles. At this auto show, 278 new energy vehicle models were exhibited, representing a 70% increase compared to 2020. Among the new models, over 80% were new energy vehicles, with nearly 20 new energy brands making their first appearance, including Li Auto, Leapmotor, R, Xiaomi, Deepal, and Skyworth.
- For international automakers, amidst the surge of new energy vehicles, they have all unveiled their new energy models at this auto show. Mercedes-Benz presented the electric EQG, Porsche showcased the Taycan and Macan EV, Audi premiered the Q6 e-tron, and BMW introduced pure electric, plug-in hybrid, and hydrogen fuel cell models.
- For ICE models, Volkswagen's Tiguan L Pro and the new generation of Magotan captured attention, both with the new ID OS 2.0 infotainment system and DJI intelligent driving. New energy vehicles in the global market have been downturned. Automakers announced delays in their electrification processes, the question remains whether Chinese automakers can continue their new energy development amidst this wave of change.

The reshuffling of automotive companies is beginning



HiPhi was absent from this year's auto show



Leapmotor's booth

- In 2020, both Li Auto and Xpeng were absent from the auto show. Li Auto has now become one of the few profitable automakers, while Xpeng has gradually found its footing and introduced the C16 model at this year's show.
- HiPhi made its debut at the 2020 Beijing Auto Show and launched its third model during last year's Shanghai Auto Show and announced plans to expand internationally. However, HiPhi announced a six-month halt in production at the beginning of 2024 and was absent from the 2024 Beijing Auto Show. Other new energy vehicle startups facing similar challenges include WM Motor, Aiways and Enovate.
- Among traditional foreign-owned or joint venture automakers, Subaru, Peugeot, Citroen, Jeep, Mitsubishi and Skoda were absent. Some have already exited the Chinese market. Others are facing operational difficulties.



Key Insight (2/2)

Automotive companies start to open up cooperation to promote mutual success



Cooperation between Lotus and NIO



Cooperation between HUAWEI and Chang'an

- An increasing number of automotive companies are engaging in open cooperation to integrate smart platforms, electric platforms and charging infrastructure. Furthermore, collaborative efforts among automotive companies increase the possibility of securing investments, which helps their overall development.
- At the 2024 Beijing Auto Show, Lotus and NIO announced cooperation in battery design for charging and swapping infrastructure, as well as battery asset management and operation. By 2023, Lotus had already joined hands with Volvo, Polestar and Jaguar Land Rover to establish the Flash Charge Alliance. The Alliance aims to provide users with more efficient and convenient charging experiences.
- Previously, Huawei and Chang'an had signed a memorandum of investment cooperation with the intention to establish a company focusing on the research, design, and sales of intelligent systems and components, with Chang'an expressing interest in investing in the company.
- Following the cooperation announcement between Volkswagen and XPeng in mid-2023, the two companies continued to deepen their collaboration at the beginning of 2024. The cooperation strengthen their electric mobility, digitization, and autonomous driving capabilities. They also announced plans to jointly develop two mid-sized vehicles, expected to be launched in 2026.

The update of three electrical systems



Geely's 11-in-1 intelligent electric drive



Cylindrical ternary lithium battery cells

- OEMs need to upgrade key components of the vehicle's three-electric systems to maintain their core competitiveness. At this year's auto show, Geely, Zeekr, Chang'an, BAIC, NIO, Wuling, AION, and Hyper showcased their latest three-electric technologies . The highlights were:
 - **Electric Drive:** Geely's 11-in-1 intelligent electric drive assembly was awarded the 5A-level certification for electric drive systems. Improvements of 0.7%, 0.5%, and 0.3% in motor, controller, and reducer, respectively have been made. Wuling's Lingxi power electric drive system achieves a maximum efficiency of 96.8%, with over 85% of the efficiency in the range of over 85%.
 - **Battery:** NIO, IM Motor, and Geely have released semi-solid-state batteries using solid-liquid hybrid electrolytes. Sunwoda and NIO showcased 4695/46105 large cylindrical ternary lithium battery cells at the auto show. These battery technologies increase battery energy density.
 - **Optimized Battery Layout:** Geely announced the GEEA 3.0 architecture, featuring an 11-layer battery pack structure, a 6-layer bottom protection, and a grid-shaped frame. Wuling's Shenglian battery MUST structure integrates battery thermal management systems, structural beams, and side panels to increase strength by 60%. It has detachable and maintainable features.



Key Trends

Key trends from the 2024 Beijing Auto Show



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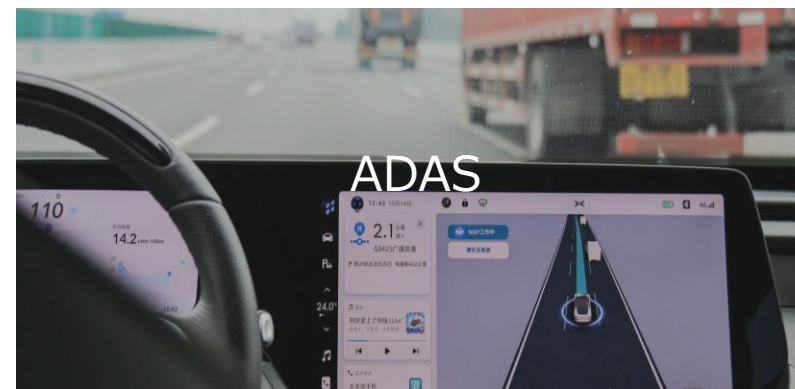
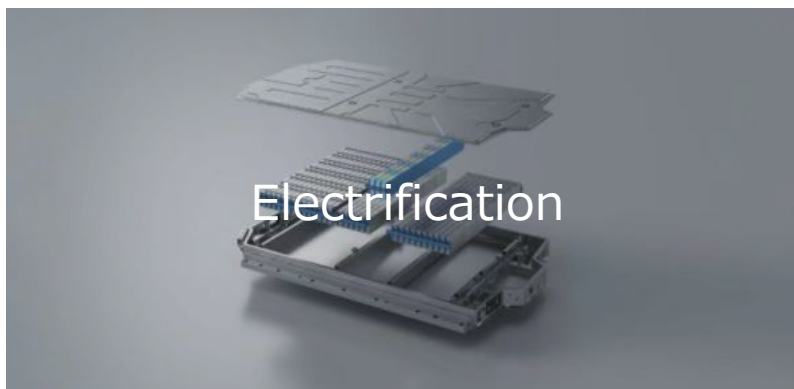
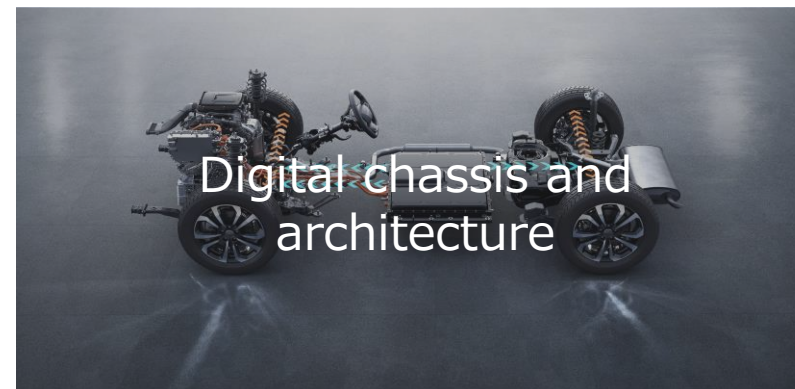


The main trends of the Beijing Auto Show 2024

Main Trends



2024





Intelligent Cockpit (1/2)

The large language model further enhances the intelligence of the cockpit



IM AI LLM



Xpeng AI LLM

- OEMs have begun to integrate LLM voice technology into vehicles with the goal of creating a better user experience. Currently, the application of AI LLMs in the field of voice assistants mainly focuses on deepening semantic understanding and optimizing corpus generation. AI-LLMs can capture user intentions, handle complex sentences and provide natural responses. This technology has become one of the most anticipated applications in the cockpit.
- At this auto show, IM debuted IM OS 3.0, based on the AI LLM it carries. IM L6 features the City Drive function, allowing users to view nearby restaurants while on the road.
- Huawei launched the Pangu LLM in the cockpit version of HarmonyOS 4.0, allowing users to chat with the vehicle through the LLM and learn about real-time vehicle conditions. In Huawei's next-generation HarmonyOS cockpit products, a new generation of Qianwu engines will also be added, enabling the recognition of each occupant's voiceprint. It can sense and record individual preferences and provide personalized services.
- Xpeng announced a collaboration with Zhipu AI. Their 'Tianji' system will launch the AI LLM in subsequent OTA versions.
- Other OEMs that have already deployed or announced plans to deploy LLMs include Xiaomi (Xiaoai LLM), Aiways (ADiGO SENSE AI), Changan Deep Blue (Deepal GPT), Geely Galaxy (Geely Xingrui AI LLM), NIO (NOMI GPT), IDEAL (MindGPT), Nezha (Qiankunquan GPT).

The penetration rate of AR-HUD increases



LYNK & CO 07 EM-P AR-HUD Movie Viewing



AITO M9/Macan EV AR Navigation

- Head Up Display (HUD) technology has been seen by the industry as a potential alternative to traditional dashboards and has been continuously iterated and upgraded. AR Windshield HUD technology has not yet achieved mass production but larger-sized AR-HUDs have become the key to hardware technology competition, while also enriching entertainment applications and content.
- The Lynk & Co 07 EM-P officially began pre-sale at the 2024 Beijing Auto Show. The model is equipped with a 92-inch AR-HUD with a 10-meter equivalent projection. In addition to providing AR navigation functionality, this AR-HUD can be linked with the car's infotainment system in parking mode to provide movie viewing. AR technology is also applied inside the central control screen to achieve linkage between navigation and voice assistants.
- The AITO M9, released at the end of 2023, was also showcased. This model features an AR-HUD capable of displaying 70 inches at 7.5 meters and 96 inches at 10 meters. The AR-HUD provides functions such as AR navigation, projecting reverse image for parking, and giant screen viewing during parking.
- The BAIC Arcfox α5 was officially launched on the evening of April 22nd 2024. The model is equipped with a 68-inch equivalent projection AR-HUD. This AR-HUD also provides functions such as AR navigation and movie viewing.
- Porsche announced the launch of its Macan EV in the Chinese market. The model offers the Porsche Driver Experience, which includes a 12.6-inch curved instrument screen, a 10.9-inch central control screen, an optionally available 10.9-inch co-driver screen and an 87-inch equivalent projection AR-HUD. The AR-HUD supports AR navigation functionality.





Intelligent Cockpit (2/2)

The control authority of the driver's seat is further delegated to the rear seat screens



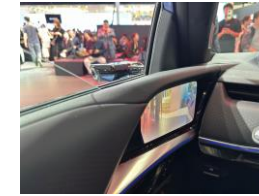
The main page of the rear-seat screen of LYNK & CO 07 EM-P



The conference function on the rear-seat screen of the new NIO ET7

- More cabins are being introduced with rear-seat screens. Equipping rear-seat screens brings more entertainment experiences to passengers and allows interaction between screens. Rear-seat screens can be used to control the vehicle's interior, reducing the operational burden of vehicle control tasks.
- At the Beijing Auto Show, LYNK & CO showcased the 07 EM-P with two additional Co Pads (14.5-inch 3K) as rear-seat screens.
- The new NIO ET7 is available with two 14.5-inch 3K displays, supporting seat control, ambient lighting and fragrances. The screens support applications such as iQIYI, Youku, Tencent, Bilibili, car audio-visual, Kingsoft documents, and NIO Link for multi-screen super conferences.
- Certain models of Mercedes-Benz S-Class and G-Class are available with optional 10.1-inch rear-seat screens. The screens support sharing of entertainment content with the central control screen, allowing users to drag and select the shared screen themselves.
- Xiaomi provides rear-seat expansion screens with two native in-car systems called Xiaomi Pad, supporting navigation, air conditioning, seat, multimedia. Additionally, Xiaomi also supports using iPads in the rear seats as screens.
- Some models in the AITO series are equipped with Huawei's MagLink car interface, which, when paired with a Huawei tablet, can control functions such as air conditioning, seats, multimedia playback, and can also replicate the central control screen to the rear-seat screens.

The penetration rate of CMS is gradually increasing.



Honda Ye CMS



Yangwang N7 CMS



Adayo CMS

- An increasing number of OEMs and suppliers have ventured into the field of Camera Monitoring Systems. These systems provide users with a broad field of view and reduce blind spots.
- The Avatr 12 supports optional 6.7-inch CMS, with a field of view of 569*310, a frame rate of 60HZ, and a resolution of 1280x720. The mirror screen is designed to minimize distortion. The brightness of the screen can be automatically adjusted, with a maximum brightness of up to 1000nit.
- The Stellato S9, a collaboration between Huawei and BAIC, will also feature CMS, with more details and specifications to be officially announced.
- The Yangwang U7 is expected to support optional CMS, with further details and specifications awaiting official release.
- The new Honda brand, Ye is expected to offer CMS across its entire lineup.
- In terms of suppliers, Huayang Electronics showcased a complete in-car system based on the 8155 chip, which includes electronic exterior rearview mirrors.



Digital chassis and architecture

Digital chassis is beginning to emerge



IM Lingxi Digital Chassis



BYD Yunnian-Z

- The emergence of the digital chassis, showcased at the 2024 show, has become increasingly important for the future of intelligent mobility. Chinese automakers showcased the achievements of digital chassis development, mainly focusing on the improvement of upper-level control algorithm capabilities.
- Geely showcased its AI digital chassis technology. This technology integrates proprietary chassis fusion domain control with a 48V electronic electrical architecture. It features a by-wire steering system, by-wire braking system, fully active suspension system, and four-wheel-side motor system. It supports XYZ three-axis six-degree-of-freedom intelligent decision-making, enabling functions such as steering wheel decoupling, variable steering ratio and four-wheel torque vectoring.
- Huawei exhibited three HIMA models equipped with the Tuling Intelligent Chassis, namely, the Luxeed S7, AITO M9, and Stellato S9. The Tuling Intelligent Chassis was unveiled at the 2023 Luxeed S7 and AITO M9 launch event. It integrates the HUAWEI MFSS 1.0 multimodal fusion perception system, HUAWEI DATS dynamic adaptive torque system, and HUAWEI xMotion intelligent vehicle body coordination control.
- IM showcased its new car, the IM L6, at the Beijing Auto Show. The vehicle is equipped with the new IM Lingxi digital chassis, which achieves functions such as four-wheel steering, ICS turret braking, turret body control, and ESP capability enhancement through unified control of the chassis system control module.
- At this auto show, BYD announced the third model of its Yangwang brand, the Yangwang U7. The car debuted the all-new Yunnian-Z chassis, which uses a floating motor instead of traditional hydraulic shock absorbers. The motor has a response speed of up to 10ms and supports power generation from suspension motion, providing energy back to the battery.

GEELY



The fusion of cockpit and ADAS domain controllers is likely to become mainstream in automotive industry

BiCV Zhiyu 2.0 Cockpit-ADAS
Fusion Domain ControllerAdayo Cockpit-ADAS fusion Domain
Controller

- Centralized hardware and software functionality in controllers is becoming a trend. Thanks to the growing demand for terminals, the industry has been continuously researching breakthroughs in this area, and in the past two years, many cockpit-ADAS fusion domain control solutions have been implemented, moving from Two Box, Two Board, to One Box, One Board, One Chip breakthroughs. At this auto show, some relevant suppliers showcased their latest developments in this field.
- BiCV showcased its Zhuyu 2.0 cockpit-ADAS fusion domain controller based on Qualcomm's next-generation Ride platform. This controller can achieve functions such as memory parking, electronic exterior rearview mirrors, high-speed NOA, AI models, integrated central control screen, and gaming.
- Adayo displayed a cockpit-ADAS fusion domain controller based on Qualcomm's next-generation Ride platform. This controller supports the implementation of mid-to-high-end cabins and L2+ intelligent driving functions.
- Black Sesame Technologies partnered with Fenghe to exhibit a cockpit and parking integrated domain controller based on the Wudang series C1200 chip and Fenghe Linux Container. This controller supports the implementation of multi-screen, multi-camera and parking functions.
- NavInfo released its new NI in Car solution, based on its self-developed Jiefa AC8025 chip, achieving cockpit and ADAS integrated dual-domain fusion. Specific functions include lane-level navigation, AI proactive recommendation voice interaction, high-speed leading and automatic parking.



Electrification (1/2)

The penetration rate of the 800V high-voltage platform is increasing, while the prices of vehicles equipped with it continue to decline



Xiaomi SiC High-voltage platform



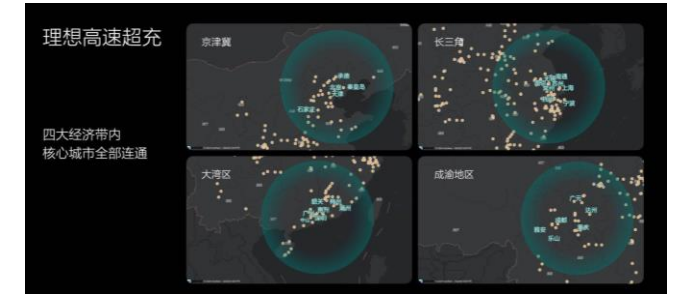
Voyah 800V SiC platform

- Extending range, increasing battery capacity and reducing charging time are common goals for automakers. Many production models equipped with 800V high-voltage electrical systems, known for their fast recharge speed and high charging power were showcased at the 2024 Beijing Auto Show.
- Since Porsche introduced the first 800V model, the Taycan, in 2019, over 60 800V models have been released. As the technology has matured, the prices of 800V models have declined.
- Xiaomi's SU7 Max is built on an 800V silicon carbide high-voltage platform, supporting a maximum recharge speed of 220km in 5 minutes and 510km in 15 minutes.
- The Porsche Macan EV, based on the Pure Electric Development Platform (PPE platform), is equipped with an 800V system capable of achieving a maximum charging power of 270 kW, with charging speeds capable of increasing charge 10% to 80% in 22 minutes.
- The Arcfox α5 also features an 800V system, capable of replenishing 280 kilometers in 10 minutes and replenishing 380 kilometers in 15 minutes.
- The Zeekr MIX is equipped with an 800V high-voltage system, offering a pure electric range of 800km. The gold brick battery can be charged in 15 minutes at a 4.5C charge rate, increasing the range by 500km.

Expanding charging network layout



Hyper supercharge stations



Li Auto highway supercharging

- OEMs have expanded the number of charging stations and implemented more efficient charging technologies by introducing faster charging speeds and wider coverage of charging networks. Some brands have cooperated to share their proprietary charging networks with other automakers.
- NIO and Lotus announced the formal establishment of a strategic cooperation in charging and battery swapping services. Currently, Lotus has accessed more than 2,000 charging stations nationwide provided by NIO, including 341 fast-charging stations along highways, covering nearly 300 cities.
- Li Auto announced the accelerated deployment of its charging network. High-speed supercharging stations have achieved full connectivity in core cities in the four major economic zones and covered over 20 popular self-driving routes. The number of urban supercharging stations will cover 17 cities by the end of June and will accelerate expansion in the second half of the year, with access to over 1,000 third-party supercharging stations with a maximum power of over 480 kW.
- Hyper announced plans to build over ten thousand 1000V supercharging terminals by 2025. Currently it has 7,084 self-built supercharging piles. It has no plans to share with other brands. Hyper has formed charging alliances with State Grid and TELD, covering 90% of charging stations nationwide.
- NIO showcased its fourth-generation battery swapping stations and 640 kW liquid-cooled ultra-fast charging piles at the auto show. The former reduces single swap time by 22% and supports shared swapping with alliance models, while the latter supports a maximum output voltage of 1000V and a maximum output current of 765A. NIO has built 2,404 battery swapping stations and over 21,900 public charging piles. The fourth-generation battery swapping stations and 640 kW ultra-fast charging piles showcased at the auto show will be launched by the end of May 2024.





Electrification (2/2)

Liquid to semi-solid-state to full-solid-state is still the main trend, involvement of OEMs in battery industry is increasing



CATL Shenixng Plus Battery



Hyper solid-state battery solution

- In terms of battery chemistry solutions, lithium iron phosphate (LFP) and ternary lithium batteries still dominate in the new energy passenger vehicles. In the future, based on existing liquid lithium battery technology, with breakthroughs in solid-state electrolytes and positive and negative electrode materials, there is the potential for a transition towards higher energy density, improved safety, and lower weight through the semi-solid-state to solid-state conversion. Solid-state batteries have advantages such as improving battery thermal efficiency (reducing sensitivity to temperature, reducing the possibility of battery short circuits, extending battery life), and energy density (increasing driving range), with significant room for cost optimization after mass production.
- The involvement of automotive companies in the battery industry is continuously increasing. In the past, the market share was mainly occupied by suppliers such as LG and CATL, but in the past two years, it has been increasingly encroached upon by the self-owned battery products of automotive companies. For new energy vehicles, the battery accounts for a significant proportion of the cost, and in the eyes of consumers, rapid charging, longer driving range, and longer battery life have become key expectations for future new energy vehicles. OEMs are actively extending downstream to the upstream of the battery industry chain to achieve closer vertical integration. In the future, more breakthroughs and innovations in battery technology may come from internal incubation by automotive companies.
- At this auto show, CATL unveiled the Shenixng PLUS battery, using lithium iron phosphate material with an energy density of 205Wh/kg and a range of over 1000km. It can replenish 600km of range in just 10 minutes of charging.
- Hyper (GAC AION) showcased its R&D achievement of a fully solid-state battery with an energy density of 400Wh/kg and a range of over 1000km. With the third-generation sponge silicon negative electrode and high-capacity solid-state positive electrode technology, this battery can achieve longer battery life and range on a smaller volume and lower weight. GAC Group plans to equip this battery in Hyper models by 2026.
- Changan's self-developed battery brand, Jinzhongzhao, expressed its vision of upgrading and optimizing existing liquid batteries to support 7-minute charging and a range of 400km. It also continues to develop new electrolyte materials, develop semi-solid-state and solid-state batteries, and plans to launch new batteries with an energy density of 350-500Wh/kg and a volume energy density of 750-1000Wh/L by 2027, and achieve comprehensive popularization around 2030.
- Sunwoda unveiled "Flash Charging Battery 3.0," which, in addition to achieving higher safety, has a charging peak rate of up to 6C, enabling 80% SOC charging in 10 minutes.
- EVE, Zeekr, AION, and others all showcased their new developments in battery technology.



ADAS (1/2)

End-to-end large models integrated into the car



Qiankun ADS 3.0 system



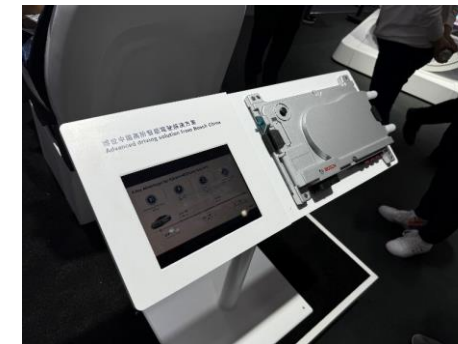
SenseTime UniAD

- The training of AI end-to-end large models has become a new trend for OEMs and suppliers, all of which have announced plans in this domain. For large models, training with massive and effectively annotated data is crucial. Therefore, the implementation not only involves the development of large models by various parties but also relies on valid real-world driving data training. Automakers with a large fleet and platform providers like Baidu have some prerequisite advantages in this aspect.
- Huawei has released its latest Qiankun ADS 3.0 system, based on the General Obstacle Detection (GOD) network. It no longer uses BEV technology but aims to achieve the stage from "recognizing obstacles" to "understanding driving scenes" to enhance the safety and intelligent driving experience. Huawei's Intelligent Computing Center's open data indicates a computing power of up to 3.5E FLOPS, with about 30 million kilometers of driving data collected per day, and the model iterates every 5 days.
- Horizon Robotics released the Journey 6 chip and also introduced the SuperDrive intelligent driving solution. Utilizing a unified end-to-end perception architecture that combines dynamic, static, and occupancy network (OCC), and data-driven interactive game algorithms, it enhances the intelligent driving experience.
- SenseTime launched the UniAD (Unified Autonomous Driving) end-to-end autonomous driving solution at the auto show. It integrates perception, decision-making, planning, and other modules into a full-stack Transformer end-to-end model, achieving integration of perception and decision-making and outputting instructions based on self-vehicle trajectory planning. Additionally, SenseTime also introduced DriveAGI, which improves and upgrades end-to-end intelligent driving solutions based on multimodal large models.

City autopilot is still hot topic



DJI Automotive Jimu solution



Bosch advanced intelligent driving computing platform

- Highway autopilot is gradually becoming standard, while urban autopilot is being promoted. This represents the further expansion of ADAS technology, which can achieve higher levels of autonomous driving in complex urban road environments, including handling complex scenarios such as traffic lights, pedestrian recognition, and obstacle avoidance.
- Xpeng announced its AI Valet at auto show, which only requires one learning session. The system can memorize the route within a day and then support intelligent assisted driving, without limitation on road sections or cities, supporting up to 10X100 personalized routes.
- GWM WEY unveiled the Blue Mountain Smart Driving Edition at the auto show, equipped with 1 lidar, 3 millimeter-wave radars, 11 cameras, and 12 ultrasonic radars, supporting mapless full-scenario NOA. It is expected to cover various driving scenarios such as highways, urban areas, and towns.
- DJI Automotive showcased its Jimu (lidar and triple cameras assembly) solution, which balances the advantages of traditional vision and lidar perception with good integration, thereby partially reducing the experience of L2+ intelligent driving. DJI also announced its lightweight map AD Maps in collaboration with Tencent Maps, which will be subsequently integrated into its urban pilot assistance products.
- Bosch presented its latest advanced intelligent driving computing platform, providing 500Tops of AI computing power. Users can freely configure the number of sensors, supporting up to 12 cameras, 5 millimeter-wave radars, and 3 lidar. It is currently deployed on the Sterra models and is expected to open urban pilot assistance in Q2 2024 and develop a lightweight map solution in Q1 2025.

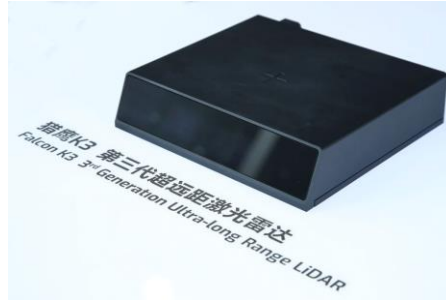


ADAS (2/2)

The further development of LiDAR technology



RoboSense MX



Seyond Falcon K3

- At this auto show, over 50 models are equipped with LiDAR technology. With technological advancements, LiDAR is moving towards integration and miniaturization, while better meeting the demands for advanced driver assistance systems (ADAS). The need for cost reduction in automotive manufacturing stimulates LiDAR companies to further lower the price of LiDAR units. With decreasing prices, LiDAR is expected to be adopted in mid to low-end vehicle models in the future.
- RoboSense showcased the latest medium-to-long range LiDAR MX at this auto show, priced at just \$200. Based on full-stack chip technology, the MX features a slim profile of 25mm, operates silently, and consumes less than 10W of power. It offers a field of view of 120°x25° and a maximum detection range of 200 meters. They also introduced the long-range LiDAR M3 with 500 lines, based on 2D scanning technology and a 940nm laser transmitter-receiver scheme.
- HESAI Technology exhibited the latest compact and high-performance long-range LiDAR, ATX, developed on fourth-generation chip architecture, supporting various vehicle types and adaptable for installation in different vehicle positions such as the roof, front windshield, rear window, and within headlights.
- Seyond unveiled two products: the third-generation image-grade long-range LiDAR Falcon K3 and the wide-angle LiDAR Robin D, covering the industry's mainstream technology routes of 1550nm and 905nm.
- Other suppliers such as Liangdao, Yijing Technology, and Daoyuan Electronics also showcased their next-generation products.



Next Steps

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