MOTORING

Value of auto service ecosystem forecast to eclipse manufacturing

By CAO YINGYING
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The automotive service ecosystem is emerging as a competitive edge in the auto industry, driven by advancements in intelligent and autonomous driving technology, an industry think tank noted.

In the era of artificial intelligence, evaluating a country's automotive competitiveness requires new standards, said Zhang Yongwei, president of China EV100.

He was speaking at the First Autonomous Mobility Ecosystem Forum held in Shenzhen, Guangdong province, earlier this month.

While manufacturing was once the primary focus, digital and AI technologies, along with mobility-related services, are now playing an increasingly significant role, Zhang said.

The service industry value generated during a car's usage could potentially surpass that of manufacturing. He predicts that the auto service market will exceed 8 trillion yuan ($1.12 trillion) by 2028.

Research data indicate that the auto aftermarket — covering parts replacement and maintenance services — will reach about 1.6 trillion yuan by 2025, with growth projected to reach 2.1 trillion yuan by 2028.

The broader 8-trillion-yuan service market also includes vehicle sales, financial and insurance services, energy solutions and aftermarket customization, as well as renewal services.

To foster synergy between intelligent auto manufacturing and service industries, Zhang underscored the importance of leveraging digital innovation and AI tools.

He added that autonomous driving enterprises should be central to orchestrating ecosystem integration, along with steps such as establishing pilot projects and enabling the emergence of national and global service providers.

According to Shenzhen Yinwang Intelligent Technology, Huawei's smart car business arm, the upgrade to ADS 4.0 has raised the use of urban assisted driving from 15 percent to nearly 20 percent, while the usage in parking scenarios has reached 42 percent.

Li Wenguang, president of Yinwang intelligent driving product line, said: "These figures demonstrate that user acceptance of intelligent driving is continuously improving, but the potential for penetration in different scenarios still needs further exploration."

He forecast that commercialization will soon accelerate: highway Level 3 autonomous driving is expected to see large-scale adoption by 2026, urban L4 by 2027, and unmanned trunk logistics by 2028.

"Autonomous driving is expected to reshape the mobility ecosystem and create new industrial opportunities," Li said.

He added that Yinwang will launch the Qiankun ecosystem open platform. It will provide industry tool kits for partners, and establish an OpenLab to support development, testing, and solution deployment, boosting collaboration in intelligent driving.

The period between 2025 and 2027 is anticipated to be the "golden three years" for commercialization, marked by advancements in technological sophistication, policy refinement and ecosystem collaboration, according to the Autonomous Driving Mobility Ecosystem 2025 report, released by China EV100 and Yinwang at the forum.

The commercialization of autonomous driving, according to the report, relies on creating a comprehensive ecosystem encompassing aspects like parking, charging, maintenance, insurance and other connected services.

It also envisions optimistic prospects for L4 autonomous driving, emphasizing its potential to tackle pressing issues such as parking shortages, charging complexities and inefficiencies in after-sales services, all while enhancing convenience and lowering costs.

Parking lots are ideal scenarios for the use of autonomous driving because they offer a well-defined and controlled environment, said Sun Longxi, president of Keytop, a smart parking solutions provider based in Xiamen, Fujian province.

Sun revealed statistics indicating a national shortage of over 80 million parking spaces, with parking-related issues contributing to 30 percent of urban traffic congestion.

Autonomous vehicles can mitigate these problems through valet parking and city-level dispatching — enabling cars to park themselves, raising space utilization from around 50 percent, and optimizing lot designs to create additional spaces, Sun explained.

Li Hongqing, CEO of Star Charge, highlighted ongoing challenges in EV charging, such as finding stations and complex operation. Fully automating the process — encompassing parking, plug-in, instant charging, seamless payment, and departure — is essential to solving the issue.

The company has partnered with automakers including BMW to implement related charging systems.

"Autonomous driving is not a 'one-man show' by a single company; it requires collaboration among automakers, tech companies, service operators, policymakers, and others. Through standardization, data interoperability, and resource sharing, the industry can transition from being 'technology-driven' to 'ecosystem-driven'," Zhang said.



Customers inspect electric vehicles at a Xiaomi store in Qingdao, Shandong province, on Oct 15. TANG KE / FOR CHINA DAILY

Draft rules take aim at automotive safety

Ministry issues new guideline to limit acceleration to reduce accidents

By LI FUSHENG
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China is racing to tighten safety rules for its automotive sector, with a particular focus on new energy vehicles, as part of efforts to promote the healthy development of the industry.

Among other measures, passenger vehicles would be required to start each journey in a mode where the time from 0-100 kilometers per hour is not less than five seconds.

This is one of the items in a draft national standard issued by the Ministry of Public Security and National Standardization Administration. The draft is now open for public comment and could take effect by 2027.

The release follows a spate of high-profile loss-of-control crashes involving high-performance new energy vehicles over the past two years.

Such accidents usually involve young inexperienced drivers and cars that are apparently too fast for them to steer safely.

Chinese NEV makers have often emphasized performance marketing, particularly 0-100 km/h acceleration figures.

Local brands including Aion Hyper, Xiaomi, and Zeekr have models capable of sprints in around three seconds, while vehicles capable of five-second times are increasingly common.

The draft also introduces new protections in three areas: pedal misapplication, battery system safety, and cabin escape.

For NEVs, which include pure electric and plug-in hybrid cars, it mandates a pedal-misapplication suppression feature: when the vehicle is at rest or creeping, the powertrain must detect unintended acceleration, suppress output, and alert the driver via an audible or visible signal.

Battery safety requirements call for pure electric and PHEV models to automatically cut off the high-voltage circuit if a longitudinal or lateral speed change of 25 km/h or more occurs within 150 milliseconds, or when an irreversible restraint system deploys.

The vehicles must monitor individual battery modules, automatically record and issue warnings of thermal incidents, and provide directed pressure relief through reserved channels so that any battery venting does not compromise the passenger cabin.

For large battery electric buses (6 meters or more), the standard mandates that the external battery pack must resist ignition or explosion for at least five minutes of a battery-alarm event.

Last month, a Li Auto Mega MPV caught fire in Shanghai while driving, prompting the company to recall 11,411 2024 Mega units due to corrosion in the battery pack's coolant system.

On driver-assistance systems, the draft requires vehicles equipped with combined assistance features to use biometric or account login to verify the driver has been trained.

Once active and above 10 km/h, systems must perform continuous hands-off/wheel-contact and gaze-monitoring checks — a clear response to misuse of "hands-off" driving kits.

Chinese car buyers are highly receptive to, and sometimes reliant on, these advanced driver assistance systems.

Yet accidents have occurred when drivers overestimate the technology, which at its current stage still requires constant attention and immediate takeover.

Earlier this year, three young people died in a Xiaomi SU7 sedan when the car, cruising at 116 km/h on a highway in Anhui province at night with the Xiaomi Pilot system active, suddenly prompted the driver to take control after detecting an obstacle.

Data shows the driver responded immediately, but the vehicle collided with a concrete barrier at 97 km/h and caught fire.

Following the accident, the Ministry of Industry and Information Technology issued a notice instructing automakers to avoid exaggerating their advanced driver assistance systems capabilities.

The draft also addresses door and escape safety. Each occupant must be able to exit via two separate doors, and all doors must have mechanical release handles even if equipped with electronic latches.

In launch deployments or battery-risk events, non-impact-side doors must automatically unlock and allow opening from outside without tools.

In another incident last month, a Xiaomi SU7 in Chengdu, Sichuan province, caught fire after a collision. Bystanders reportedly could not open the electronic latch, highlighting the risks of advanced door-locking systems.

Analysts say such incidents underline systemic risks in China's fast-growing EV sector, where some manufacturers focus heavily on promotional 0-100 km/h figures and ADAS marketing while safety systems and escape mechanisms lag.

"Automakers must shift from athletic acceleration to everyday safety," said Zhang Xuan, a Shanghai-based automotive industry analyst. "The draft standard reflects a move from ex-post enforcement to ex-ante prevention."

NEV tech platform launched

By WANG YUCHEN
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China has unveiled its first globalized NEV technical validation system, as the country's vehicles are gaining popularity in a growing number of overseas markets.

The system is primarily composed of a globalized electric safety technical assessment and a big data platform for global charging working conditions.

"New energy vehicles are encountering charging-related technical issues abroad, including differences in standards, infrastructure, and user habits in different countries," said Gao Jidong, general manager of the China Automotive Technology and Research Center New Energy Vehicle Research and Inspection Center (Tianjin).

To assist with the global expansion of Chinese NEVs, the center has launched the New Energy Vehicle Safety Technical Assessment Global at the third New Energy Vehicle Electric Safety Conference earlier this month, which focuses on typical overseas working conditions.

The initiative includes 11 specialized validation projects, such as whole vehicle charging and discharging safety function validation, as well as user charging safety protection validation.

These projects have resulted in the creation of localized testing plans for markets including the Middle East, Southeast Asia and Northern Europe, providing tailored technical validation services to enterprises.

Moreover, after more than four years of development, the center has established the global charging working conditions big data platform.

The platform now covers more than 99 percent of major charging operators and includes data from over 50 countries and regions. It compiles information on more than 500,000 public charging stations and 4,000 different types of charging piles.

The platform also includes an extensive library of fault scenarios, providing the industry with valuable real-world data to enhance R&D efficiency.

"Our goal is to integrate actual overseas charging environments and scenarios, and develop a series of testing methods and standards in domestic laboratories," said Gao.

These laboratories feature over 300 charging stations, including more than 60 international chargers with European, American, and Japanese standards, as well as both alternating current and direct current charging piles.

The aim is to replicate overseas testing conditions in a domestic environment, enabling the identification and mitigation of risks related to electric safety and charging. This process not only reduces potential hazards but also improves the overall user experience of NEV products.

In addition, the center launched the 2026 edition of the NESTA six-dimensional electric safety system. This updated version refines and consolidates five validation projects from the 2025 edition, creating a framework with 11 mandatory and 27 optional validation items.

The revised system also incorporates more practical tests, including serial working condition assessments, which focus on charging safety, electromagnetic safety, and functional safety.

Looking to the future, Gao stated that the New Energy Vehicle Inspection Center will continue to leverage its advantages in standards and regulations, testing and evaluation, technological innovation, and industry platforms, with the aim of creating a one-stop integrated service platform that will serve the needs of the industry.

"From an industry positioning perspective, we will further strengthen connections with both domestic and international markets, actively participate in international standardization activities, and strive to become a key participant and leader in the development of high-standard regulations," Gao said.

Rolls-Royce pays homage to ancient paper craft

By LI FUSHENG

The air is filled with the earthy scent of wet fibers as strips of tree bark and rice straw are soaked, beaten, and transformed into delicate sheets of handmade paper — a craft perfected over more than 2,000 years.

Earlier this month, Anthony Zhao, regional director of Greater China at Rolls-Royce Motor Cars, stepped into this world of patience, precision, and artistry in Jingxian county, Anhui province, the birthplace of traditional Xuan paper.

Over two days, Zhao and his team visited workshops, witnessing artisans turn raw plant fibers into paper, which has preserved centuries of Chinese culture.

The visit was part of a three-year initiative, Project Beating! Heart, Rolls-Royce's first deep dive into Chinese artisanal heritage promises to bridge centuries-old craftsmanship with modern automotive artistry.

"I felt like a student again," Zhao said with a smile. "Watching every meticulous move of the artisans, you realize the same patience and care go into a single sheet of handmade paper as into a Rolls-Royce Bespoke car. Every detail matters. Every gesture tells a story."

Handmade paper, chosen as the initiative's first focus, seemed almost made for this purpose. Zhao noted that both serve as blank canvases for creativity, both require painstaking handwork, and both demand extraordinary patience and attention to detail.

The fibers of the paper are carefully softened, refined, and formed by hand — a process that takes months, much like the hundreds of hours Rolls-Royce artisans spend creating a single bespoke vehicle. In either case, the outcome is a vessel for artistic expression that endures for generations.

One artisan, She Xianbing, born in 1976 and the founder of Yixuan Pavilion, has been learning and mastering the craft since 1993. Since around 2008, he has invested millions in research and innovation, experimenting with materials and methods to restore the level of excellence seen in China's historic papers.


Anthony Zhao, regional director of Greater China at Rolls-Royce Motor Cars, visits a paper workshop on Nov 7 in Jingxian county, Anhui province. PROVIDED TO CHINA DAILY

"If we cannot reproduce the best paper our history has ever produced," She explained, "how can we create anything else?"

His relentless pursuit reflects a deep sense of responsibility and reverence for tradition, a spirit Rolls-Royce intimately recognizes.

Zhao described meeting She and other artisans as a reminder of the commitment and vision that drive both Chinese craftsmanship and Rolls-Royce luxury.

"Their dedication follows the same principles we uphold at Rolls-Royce: rarity, craftsmanship, heritage, conscientiousness," Zhao said. "The moment you see it, you understand why luxury is not just about price — it's about story, care, and soul."

The collaboration is a two-way street. In September, Chinese paper masters visited Rolls-Royce's Goodwood headquarters in the United Kingdom, leading master classes on traditional calligraphy, painting, and paper-making techniques. British designers and craftsmen were captivated.

Zhao recalled: "They immersed themselves completely, exploring ways to translate these ancient methods into modern automotive art while respecting their cultural roots."

Project Beating! Heart is not about pastiche. Rolls-Royce designers are not merely recreating Chinese motifs; they are reinterpreting them, weaving heritage into modern, luxurious expressions.

Zhao emphasized that the goal is to spark creativity, allowing Chinese craftsmanship to inspire new forms of Bespoke excellence.

"It's about dialogue," he said. "About learning, exchanging, and creating something that resonates with clients across cultures."