

Chapter 4: Development of Generative Artificial Intelligence

In 2025, China's artificial intelligence industry showed strong vitality and numerous advances. The Opinions on Further Implementing the "AI Plus" Initiative set out a broad framework and supported breakthroughs in AI technologies and applications across multiple fields. China's intelligent computing capacity reached 1,590 EFLOPS, the number of AI companies exceeded 6,000, and the core industry was expected to exceed RMB 1.2 trillion. A dedicated AI standardisation initiative progressed, with more than 40 key national and industry standards developed and released during 2025, alongside important open-source projects such as agent protocols and operator libraries [62].

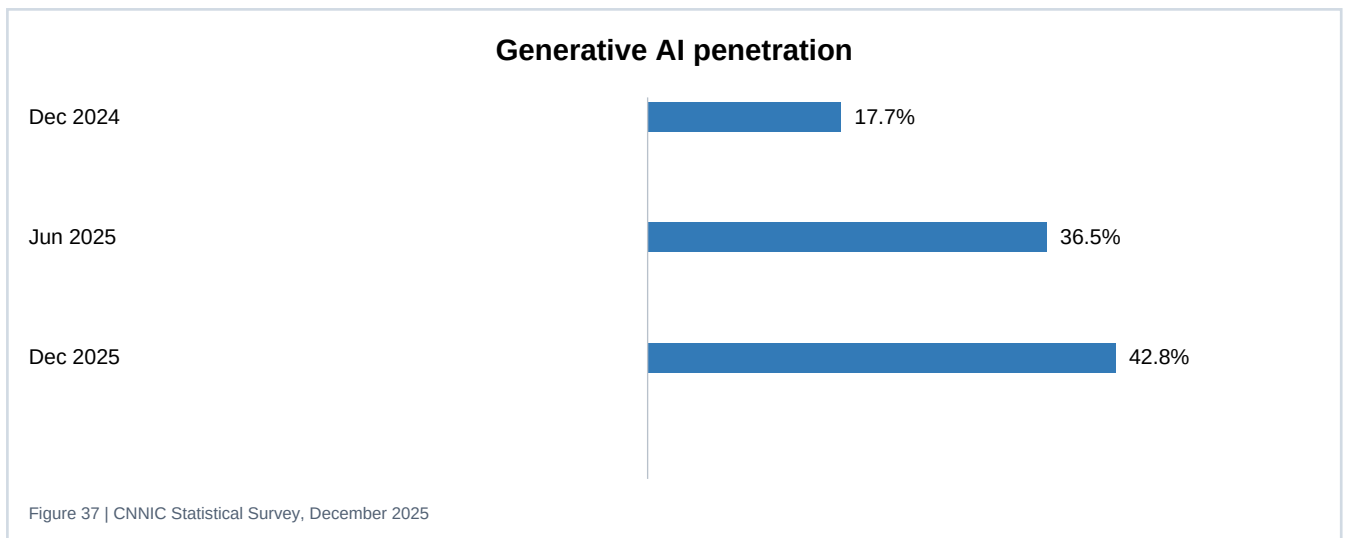
Model performance improved substantially, adoption widened and integration with industry accelerated. Supported by policy, technology and investment, AI is changing scientific research methods, advancing intelligent transformation across the primary, secondary and tertiary sectors, and driving new intelligent consumer products and services. It is spreading into education, healthcare, employment and other fields, improving quality of life. AI is becoming an important engine of industrial transformation and upgrading and a strong driver of new quality productive forces.

1 User adoption

1.1 Generative AI penetration

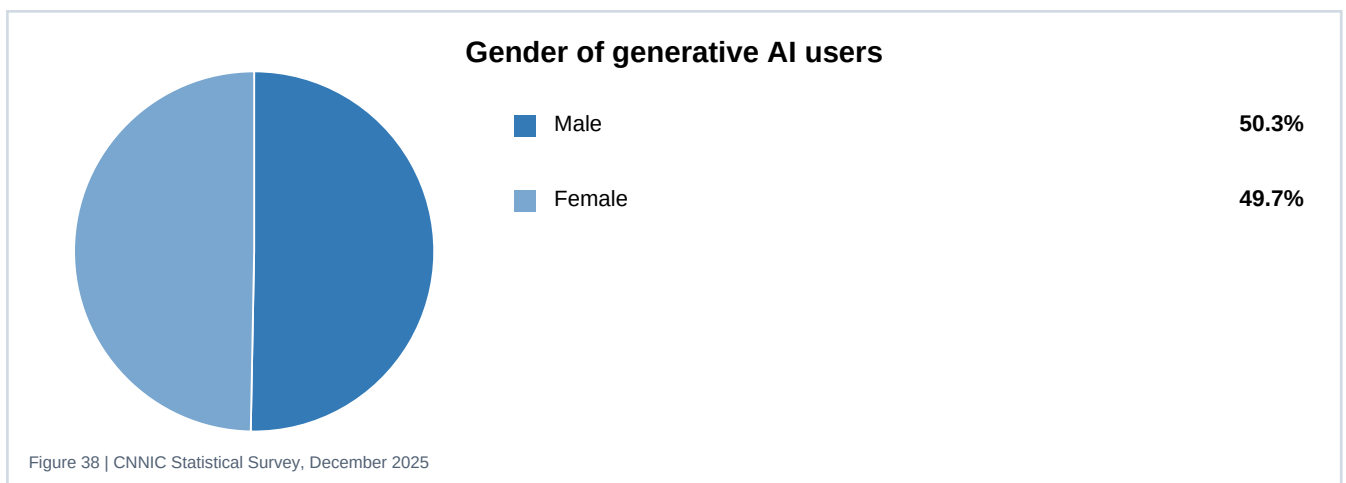
By December 2025, China had 602 million generative AI users [63], an increase of 353 million over December 2024, representing growth of 141.7%. Penetration reached 42.8% [64], reported as an increase of 25.2 percentage points over December 2024.

Translation note: Figure 37 displays 17.7% for December 2024 and 42.8% for December 2025, a difference of 25.1 percentage points. The source narrative reports 25.2; both are retained as published.



1.2 Profile of generative AI users

The gender distribution was relatively balanced, with a male-to-female ratio of 50.3 to 49.7.



Young people remained the main users, but adoption was spreading into middle-aged and older groups. Users aged 19 and under accounted for the largest share, 26.4%; those aged 20-29 represented 21.3%, and those aged 30-39 represented 22.0%. Users aged 40 and over accounted for a combined 30.3%, up 4.9 percentage points over six months.

Age of generative AI users

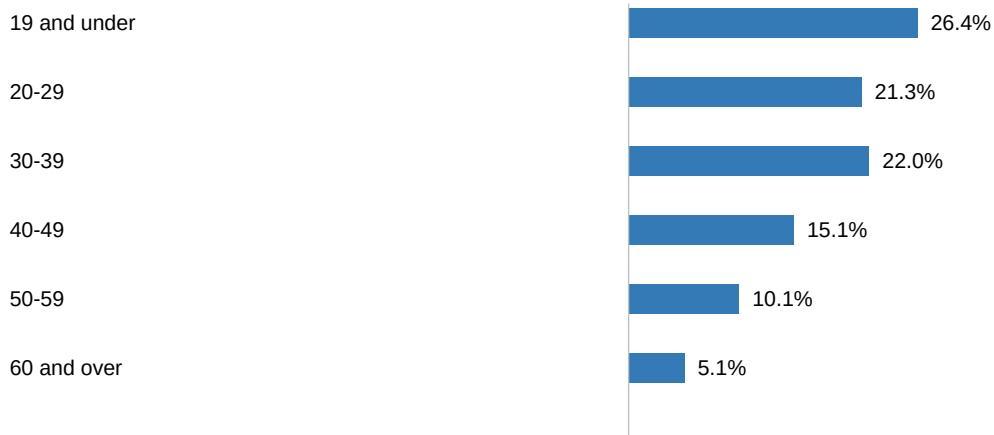


Figure 39 | CNNIC Statistical Survey, December 2025

By educational attainment, users with tertiary education or above accounted for the largest share, 38.6%, followed by those with lower secondary education, at 29.9%.

Education of generative AI users

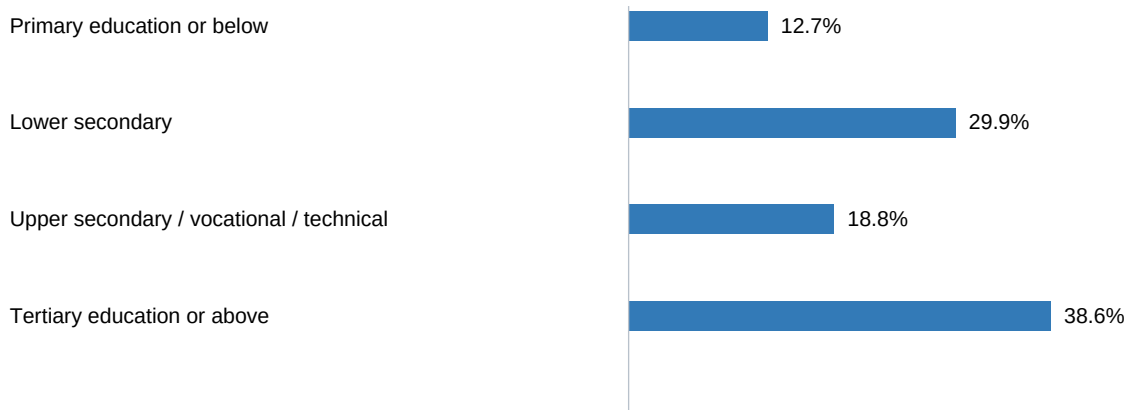


Figure 40 | CNNIC Statistical Survey, December 2025

Students were the largest occupational group among generative AI users, accounting for 30.1%. Enterprise/company managers and general staff accounted for 16.2%, and self-employed people or freelancers for 14.2%.

Occupations of generative AI users

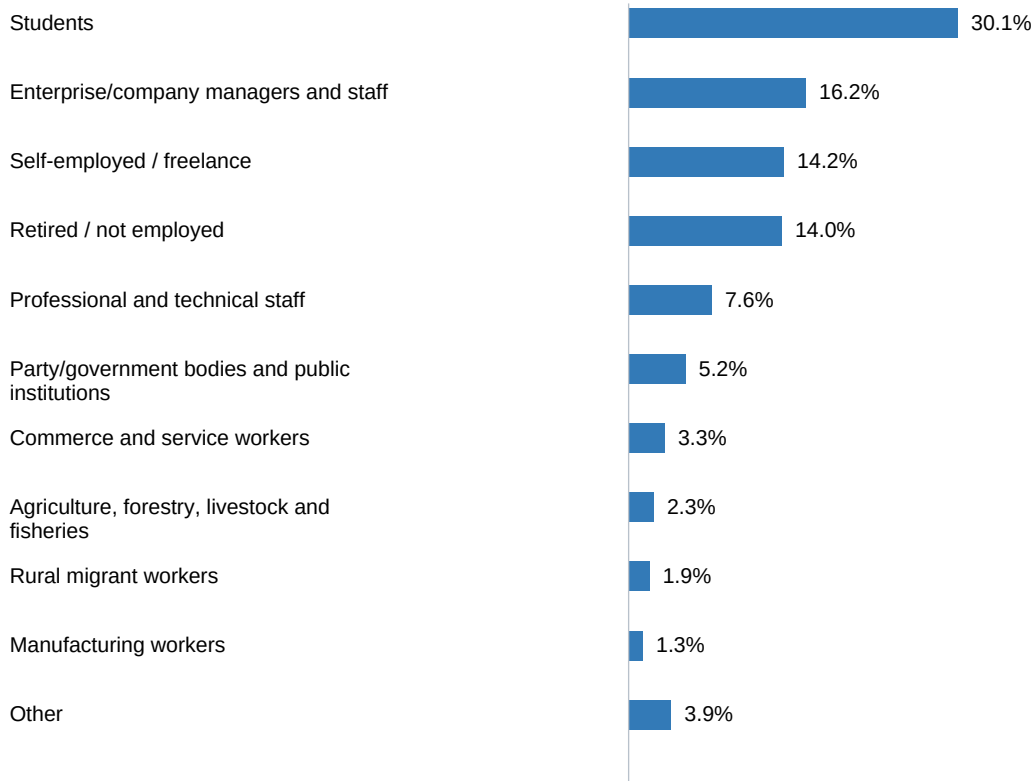


Figure 41 | CNNIC Statistical Survey, December 2025

1.3 Use of major product types

During 2025, 446 additional generative AI services completed filing with the Cyberspace Administration of China. Local cyberspace administrations registered a further 330 generative AI applications or functions that directly accessed the capabilities of filed models through APIs or other means. By 31 December 2025, a cumulative total of 748 generative AI services had completed filing and 435 applications or functions had completed registration [65].

Generative AI apps were the most widely used product type, used by 86.0% of users. Intelligent assistants built into mobile devices by manufacturers also played an important role in expanding adoption, with usage of 41.4%.

Use of generative AI product types

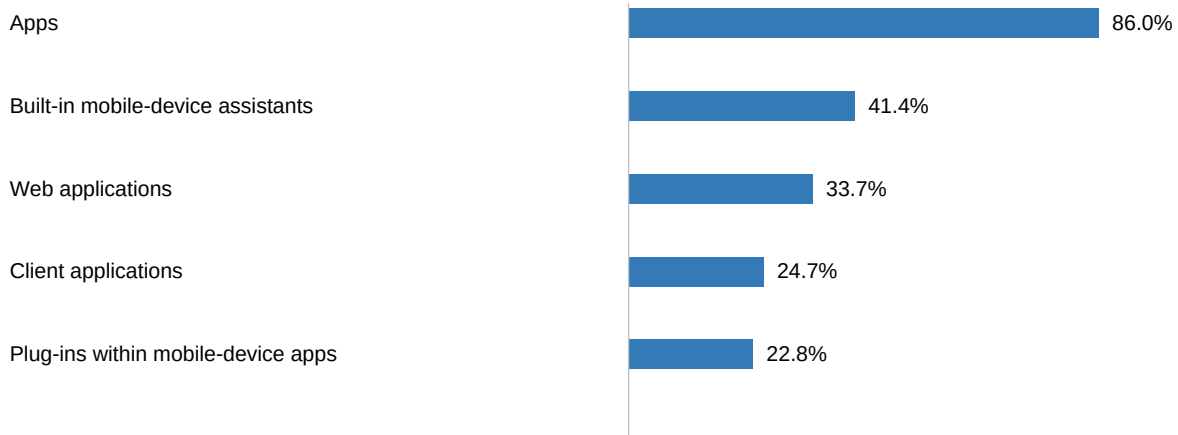


Figure 42 | CNNIC Statistical Survey, December 2025

1.4 Main purposes of use

Answering questions remained the most widespread use of generative AI, at 76.0%. Generating or processing images/video, text, and work summaries/meeting minutes/presentations were also common, at 47.8%, 37.6% and 32.5%, respectively.

Purposes for using generative AI

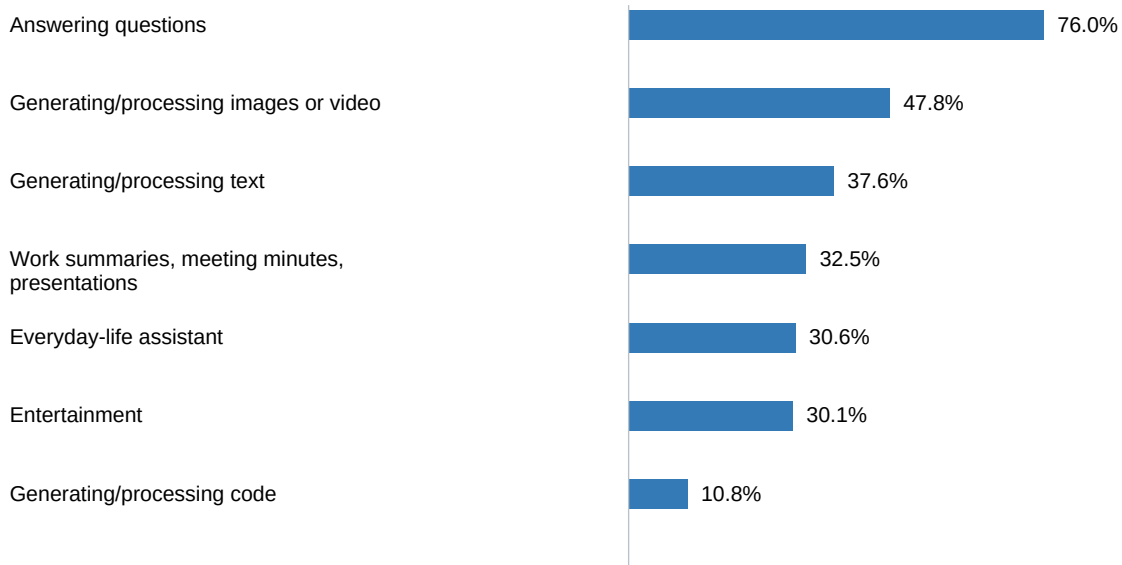


Figure 43 | CNNIC Statistical Survey, December 2025

1.5 Average monthly time spent using AI apps

By December 2025, average monthly usage per person was 143.2 minutes for native apps from internet/AI technology companies, 34.7 minutes for AI application plug-ins, and 5.7 minutes for AI assistants supplied by phone manufacturers. Average monthly usage of AI application plug-ins increased by 69.6% year on year.

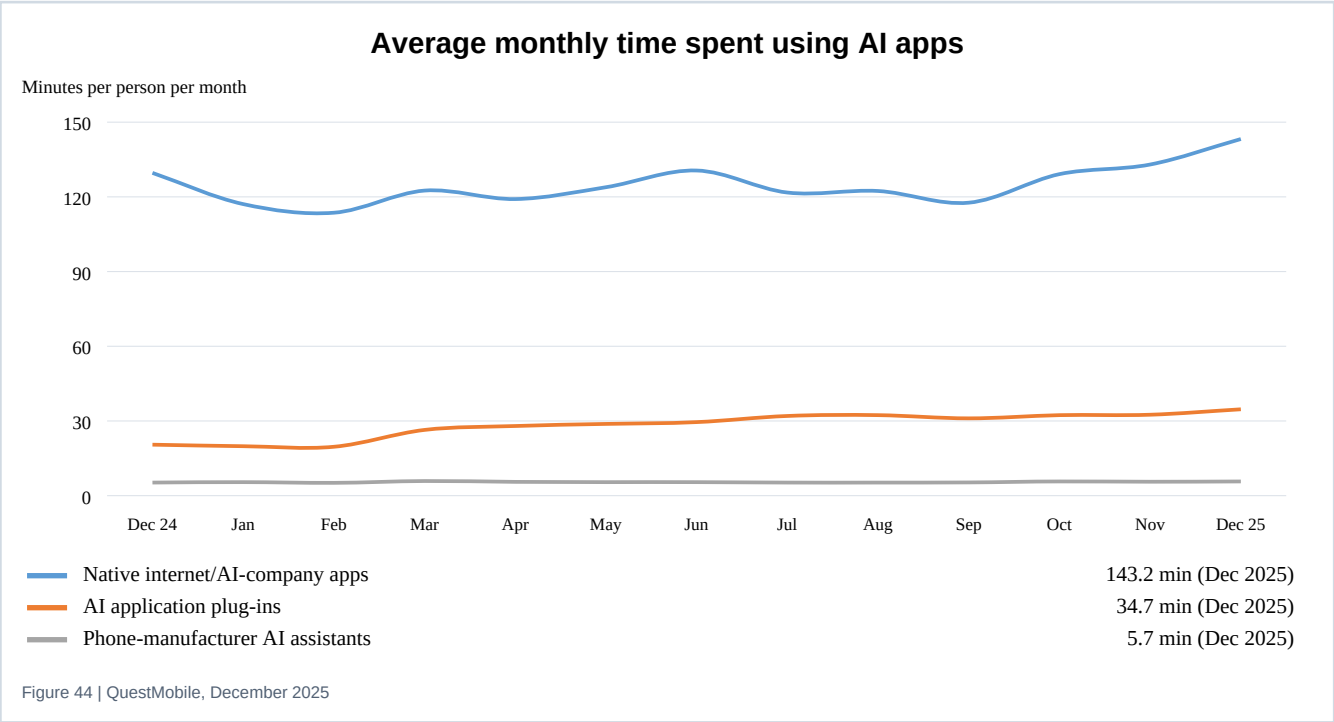


Figure 44 retains the original vector trend curves for December 2024-December 2025. Exact monthly values were not labelled in the source. Only the three December 2025 values stated in the text are tabulated; intermediate values have not been inferred.

2 Industry development

2.1 Development environment

Policy environment

Top-level planning guided development and supporting policies followed. First, national strategy provided direction: the State Council issued the Opinions on Further Implementing the "AI Plus" Initiative, giving comprehensive guidance for seizing the AI revolution's opportunities and fostering new quality productive forces. Second, departmental documents guided implementation. The Ministry of Industry and Information Technology and seven other departments issued implementation opinions for the "AI Plus Manufacturing" initiative, supported by industry-transformation and enterprise-application guidance, and launched challenge-based innovation tasks for the AI industry and new industrialisation. Other departments introduced initiatives for AI-enabled public intellectual-property information services, high-quality energy development, and healthcare.

Technology environment

Algorithms achieved breakthroughs, domestic computing capability advanced, and the scale advantage of data resources expanded.

First, algorithm development focused on multimodality, efficiency, robotics, agents and long-token applications. Multimodal capabilities strengthened substantially, and unified frameworks for understanding and generation began to emerge. Large language models such as Qwen2.5 expanded into language, vision and other modalities. Algorithmic efficiency improved, with advances in innovation and optimisation: DeepSeek-R1's incremental training cost was equivalent to USD 294,000 [66], while Weibo's VibeThinker had only 1.5 billion parameters and a single post-training run cost USD 7,800 [67].

Embodied intelligence became a major focus. In 2025, China had more than 140 humanoid robot manufacturers and over 330 humanoid robot products [68]. Companies including Xiaomi and Huawei introduced related products, deepening the integration of AI algorithms and robots. Agent deployment accelerated; an innovative training framework led by Tsinghua University enabled AI agents to show near-human overall planning capabilities in complex, long-duration tasks. Context windows extended to the million-token scale, improving long-document analysis and understanding of complex workflows. Alibaba's QwenLong-L1 supported reasoning over contexts of 120,000 tokens. By June, China's daily token consumption exceeded 30 trillion, more than 300 times the level a year and a half earlier [69].

Second, computing development focused on domestic production, greener efficiency and growing demand at the edge. Domestic AI chip adoption increased in 2025, with products from Huawei and Cambricon taking on more training and inference workloads and supporting the iteration of Chinese large models. Morgan Stanley projected that China could reach approximately 50% domestic sourcing at the GPU level in 2027-2028 [70]. Under the Special Action Plan for Green and Low-carbon Development of Data Centres, intelligent computing centres widely adopted liquid cooling and advanced packaging, while average power usage effectiveness (PUE) continued to decline. Sugon Data Energy's fully immersive phase-change liquid-cooling technology reduced PUE to 1.04 [71]. Demand for edge computing expanded in connected vehicles, consumer electronics and the industrial internet, driving distributed architectures with low latency and high energy efficiency.

Third, data development focused on high-quality datasets and synthetic data. Industry-specific datasets emerged rapidly, and the data-factor market entered a phase of higher-quality supply. Data annotation and high-quality dataset construction made significant progress.

The National Data Administration published a list of exemplary high-quality datasets covering applications in healthcare, energy, transport and other industries. Data-annotation bases in seven Chinese cities had built 524 datasets serving 163 large models [72]. Synthetic data offered an effective way to fill gaps in real-world data, particularly in addressing data scarcity and limited generalisation in embodied intelligence.

Investment and financing environment

Financing activity continued to expand and investment became more focused. First, supportive policies stimulated the market. In September, the National Development and Reform Commission called for stronger financial and fiscal support for AI, improved risk-sharing and investment-exit mechanisms, and greater activity in AI investment and financing.

Second, both transaction numbers and investment volumes increased. By December 2025, 1,534 AI-related investment and financing transactions had been disclosed in China, totalling approximately RMB 152.885 billion [73]. Transaction numbers rose by 81.3% and value by 66.7% year on year.

Third, robotics attracted the largest share. By transaction count, robotics accounted for 637 deals (41.5%), applications in traditional industries for 356 (23.2%), and AI hardware and technology for 266 (17.3%). By value, robotics attracted RMB 58.456 billion (38.2%), AI hardware and technology RMB 27.629 billion (18.1%), and traditional-industry applications RMB 23.551 billion (15.4%).

Fourth, investment was geographically concentrated. The three leading locations together attracted more than three quarters of the total. Beijing received RMB 55.878 billion (36.5%), Shanghai RMB 33.153 billion (21.7%), and Guangdong RMB 27.614 billion (18.1%).

Translation note: The source calls these the top three "cities", but Guangdong is a province. "Locations" is used here.

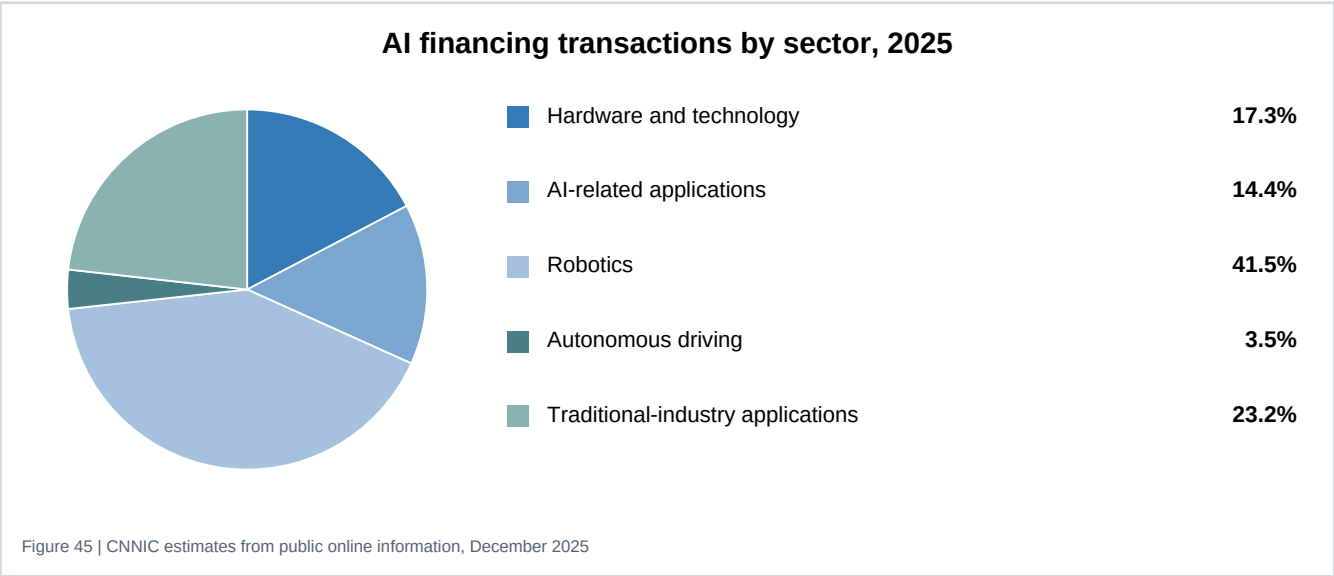


Figure 45's displayed percentages sum to 99.9%; the published labels are retained.

AI financing value by sector, 2025

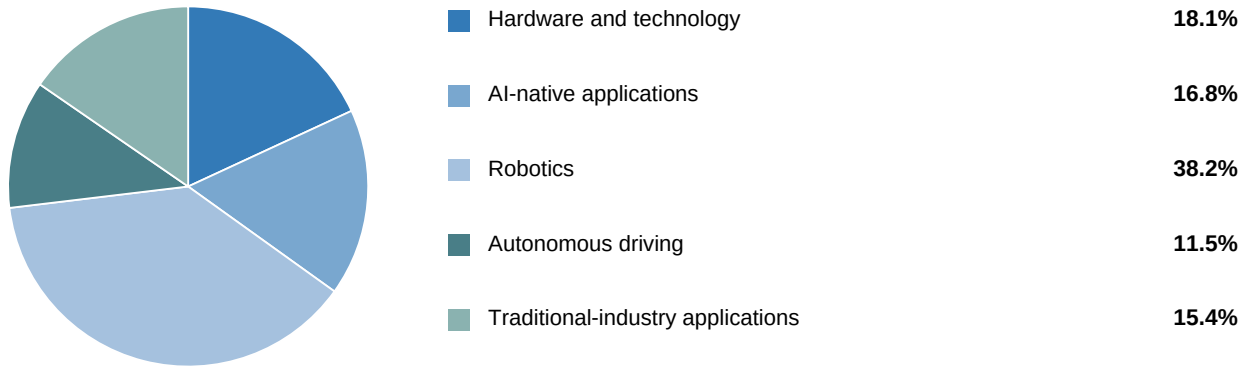


Figure 46 | CNNIC estimates from public online information, December 2025

AI financing value by location, 2025

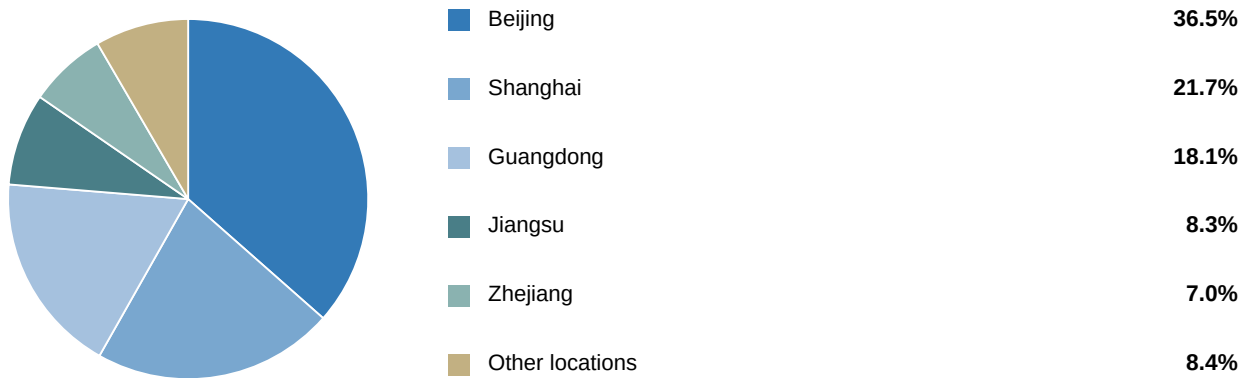


Figure 47 | CNNIC estimates from public online information, December 2025

2.2 Innovative applications

AI Plus science and technology

China is developing AI-driven approaches to scientific research and R&D. First, AI-driven research has produced substantial results. The report describes an early advantage in AI combined with earth/environmental sciences and engineering, and later advances to global leadership in its intersection with mathematics, physical sciences, and the humanities and social sciences [74]. Second, AI is reshaping research methods and accelerating discovery. The Chinese Academy of Sciences released "Panshi v1.5: a one-stop scientific research platform", supporting advances in astrophysics, materials synthesis and mechanical engineering and substantially accelerating research.

AI Plus industrial development

AI-native business models are expanding and supporting intelligent transformation across the primary, secondary and tertiary sectors.

First, new AI-native models and businesses continued to emerge. Compared with the number added in 2024, newly filed generative AI services increased by 87.4% in 2025 and newly registered applications or functions by 214.3% [75]. At the 2025 World Artificial Intelligence Conference, Alibaba launched Quark AI glasses, integrating Tongyi models and Quark AI to enable multi-turn, multi-intent and multimodal interaction.

Second, intelligent development across industrial operations improved digital performance. The proportion of Chinese industrial enterprises using large models and agents rose from 9.6% in 2024 to 47.5% in 2025 [76]. Industrial large-model applications in R&D/design, production/manufacturing and business management accounted for 33%, 24% and 32%, respectively [77]. AI had entered more than 70% of business scenarios in flagship factories, with over 6,000 domain-specific models and large-scale deployment of more than 1,700 key intelligent-manufacturing equipment and industrial-software offerings. Industrial agents capable of sensing, decision-making and execution were moving smart manufacturing from automation towards autonomy [78].

Third, agricultural digital and intelligent transformation covered the full industry chain, with progress in research, production and equipment. Agricultural informatisation increased steadily, with more than 100,000 agricultural Internet of Things demonstration sites and over 2.1 billion mu-treatment operations using plant-protection drones. China had built more than 1,000 unmanned farms, addressing the "last mile" of digital and intelligent agriculture [79].

Fourth, AI was transforming service-industry models through closer integration with practical scenarios. Autonomous driving and intelligent sensing, route planning and cloud dispatch enabled vehicles to find charging points, recharge automatically and receive seamless maintenance services. AI adoption in phones accelerated; on-device large models could reach 17 billion parameters in 2025 [80]. A programme selecting exemplary high-value AI-terminal scenarios was launched at the 2025 World Artificial Intelligence Conference to accelerate practical value creation.

AI Plus consumption upgrading

AI is accelerating new forms of consumption. First, it is expanding service-consumption scenarios. AI-native companion products such as the interactive toy "Fuzai", the children's companion robot "Dudu", and the desktop pet robot "EMO" combine AI with emotional interaction. Smart supermarkets, stores and commercial districts are developing rapidly. The Ministry of Commerce had designated 20 national demonstration smart commercial districts and 31 smart stores [81]. The 2025 national demonstration pedestrian-street/commercial-district programme progressed; Xi'an's Grand Tang Mall pedestrian street, for example, used AI virtual tourism ambassadors to provide personalised, immersive cultural and tourism experiences.

Second, new AI-product consumption models are emerging. The first World Humanoid Robot Games produced 26 robot champions, demonstrating practical humanoid-robot applications. Intelligent products are entering everyday production and life. In additive manufacturing, Nike used machine models to generate distinctive shoe geometry and 3D printing to manufacture it. Chinese mobile-device manufacturers integrated lightweight large models and multimodal AI assistants into consumer electronics. In 2025, retail sales of intelligent robots on key monitored platforms in China grew by 18% [82].

AI Plus public wellbeing

AI is improving work quality, learning efficiency and quality of life. First, it is creating employment opportunities. By December 2025, 13.9% of employed internet users had AI-related work, up 3.1 percentage points over six months. China's AI-related talent shortfall exceeded five million, with a supply-to-demand ratio of 1:10 [83]. Demand for roles such as algorithm engineers, AI trainers and data analysts grew by more than 100% year on year [84].

Second, AI is being integrated throughout education to support fair, intelligent and convenient learning environments. Among students enrolled in higher education, 38.1% studied a subject or some courses related to AI. Since 2023, the Ministry of Education's "AI Plus Higher Education" programme had selected 80 exemplary applications in three batches, covering teaching, student assessment and other areas [85].

Third, AI integration in everyday public services is deepening. In elderly care, the Ministry of Industry and Information Technology and the Ministry of Civil Affairs jointly launched collaborative development and scenario pilots for intelligent care-service robots. Chongqing promoted a smart elderly-care initiative, including recruitment of the first 100 publicly funded undergraduates in smart elderly care, supporting an upgraded "15-minute elderly-care service neighbourhood" [86]. Shanghai had built more than 70 smart care homes, using intelligent mattresses, health-check devices and other terminals to improve age-friendly services [87].

AI Plus governance capability

Government applications progressed systematically and public-safety governance improved. First, breakthroughs in domestic open-source large models encouraged regions and departments to adopt them for internal administration, government services, decision support and urban governance. Government models shortened procedures, reduced repetitive work and improved service quality, enabling frontline staff to focus on higher-value tasks. Text-and-robot services handled nearly one third of work previously handled by people, while intelligent dispatch and preliminary review replaced almost half of manual service work in the examples cited [88].

Second, emergency monitoring, early warning, command decisions and on-site rescue became more intelligent. The Ministry of Emergency Management developed the "Jiu'an" large model 2.0. It achieved assessment accuracy above 91%, reduced question-answering and retrieval latency to four seconds, and could identify waterlogging locations among tens of thousands of video feeds within 30 seconds, successfully issuing warnings of hazards in multiple locations [89].

AI Plus global cooperation

China promotes development through openness and cooperation, seeking broader access to technology and participation in global governance. First, it advocates human-centred, beneficial AI and works to narrow the global digital divide. Within the Inclusive AI Capacity-Building Programme and the Belt and Road Initiative, China increased support for digital and intelligent infrastructure in Africa. Joint work on intelligent transport and practical rural digital technologies supported infrastructure connectivity and access in developing countries.

China's cumulative contributions to AI open-source projects increased by more than 150% compared with 2018, and it ranked second globally in very-high-impact projects [90]. High-performance Chinese models such as DeepSeek continued to offer free and open-source access, lowering barriers to innovation for developers worldwide.

Second, China emphasises both development and safety and participates actively in global AI governance. At the July 2025 World Artificial Intelligence Conference and High-Level Meeting on Global AI Governance, China published the Global AI Governance Action Plan. It called for effective joint action based on public benefit, respect for sovereignty, development orientation, safety and controllability, fairness and inclusion, and open cooperation.

In September, China released the Statement of the Council of Heads of State of the Shanghai Cooperation Organisation on Further Deepening International Cooperation in Artificial Intelligence. It called for stronger international cooperation and for AI to develop in a more open, inclusive, widely beneficial, fair and positive direction.

Sources and notes

[62] State Council Information Office, 21 January 2026. [Source](#)

[63] Generative artificial intelligence (GAI) is a branch of AI that generates text, images, sound, video, code and other content using algorithms, models and rules. Although often confused in everyday usage with large language models (LLMs), the concepts differ: LLMs are generally considered a particular category of generative AI focused on natural-language processing.

[64] The 42.8% figure is the proportion of China's total population that used generative AI products or services during the preceding six months.

[65] Cyberspace Administration of China, 9 January 2026. [Source](#)

[66] The Paper, 18 September 2025. [Source](#)

[67] The Paper, 18 November 2025. [Source](#)

[68] State Council Information Office, 21 January 2026. [Source](#)

[69] State Council Information Office, 14 August 2025. [Source](#)

[70] Sina, 16 January 2026. [Source](#)

[71] People's Daily Online, 3 March 2025. [Source](#)

[72] Chinese Government website, 23 July 2025. [Source](#)

[73] CNNIC compiled and estimated these figures from publicly available online disclosures of investment and financing transactions, excluding private placements, initial public offerings, delistings and similar events.

[74] Fudan University, AI for Science White Paper 2025, 9 June 2025. [Source](#)

[75] Cyberspace Administration of China, 9 January 2026 and 8 January 2025. [Source 1](#) [Source 2](#)

[76] IDC survey data, cited on the National Development and Reform Commission website, 29 August 2025. [Source](#)

[77] Xinhua, 25 September 2025. [Source](#)

[78] State Council Information Office, 21 January 2026. [Source](#)

[79] Xinhua, 21 October 2025. [Source](#)

[80] China Unicom, White Paper on Development Trends in the Next-Generation Intelligent Terminal Industry (2025).

[81] Ministry of Commerce, 9 January 2023 and 8 November 2023. [Source 1](#) [Source 2](#)

[82] Ministry of Commerce, 23 January 2026. [Source](#)

[83] People's Daily Online, 28 May 2025. [Source](#)

[84] Qiushi, 16 November 2025 (date as printed). [Source](#)

[85] China Education and Research Network, 17 October 2025; Ministry of Education, 12 April 2023 and 14 November 2024 (dates as printed in the source). [Source 1](#) [Source 2](#) [Source 3](#)

[86] Chinese Government website, 24 May 2025. [Source](#)

[87] CCTV, 7 June 2025. [Source](#)

[88] Cyberspace Administration of China, 10 October 2025. [Source](#)

[89] Xinhua, 25 December 2025. [Source](#)

[90] Institute of Scientific and Technical Information of China and Peking University, Global Artificial Intelligence Innovation Index Report 2025.

Unofficial English translation of CNNIC's 57th Statistical Report on China's Internet Development, Chapter 4, PDF pages 49-61 (printed pages 41-53). Source claims, dates and references are translated as published and have not been independently verified. Figures are redrawn as vector charts; Figure 44 preserves the original vector curves. Product and policy names are translated or transliterated.