Huawei Investment & Holding Co., Ltd.

2024 ANNUAL REPORT

**Building a Fully Connected,
Intelligent World**

HUAWEI

Who is Huawei?

Founded in 1987, Huawei is a leading global provider of information and communications technology (ICT) infrastructure and smart devices. We have approximately 208,000 employees and we operate in over 170 countries and regions, serving more than three billion people around the world. We are committed to bringing digital to every person, home and organization for a fully connected, intelligent world.

Advance with the times and shine bright

Laying the groundwork for All Intelligence

In 2024, artificial intelligence (AI) played a critical role in advancing the Fourth Industrial Revolution. Experiencing faster, more widespread commercial use, AI is becoming a major driver of global economic growth and bringing profound changes to individuals, homes, and enterprises. Driven by AI, networks are evolving with upgrades in capacity, latency, and architecture, paving the way for all industries to enter the age of All Intelligence.

Huawei will continue to strengthen investment in technological innovation to provide our customers with high-quality products and services. As we bolster the foundations of an increasingly digital and intelligent world, we will step up efforts to set new benchmarks with "lighthouse" projects to help light the way forward for industry intelligence.

Strengthening innovation, openness, and collaboration

The age of All Intelligence will create unprecedented opportunities and challenges for innovation. Huawei believes in the power of an open approach to research and innovation, and we are working closely with industry partners and academia to advance technology and help different industries modernize. We continue to innovate based on two core drivers: science and technology, and customer needs.

For the past three years, we have invested more than 20% of our annual sales revenue back into R&D to ensure the competitiveness of our products and solutions. We dive deep into industry scenarios, guide product planning accordingly, and continue to invest heavily in R&D while strengthening strategic synergy across hardware, software, chips, devices, networks, and cloud. Through these efforts, we want to build more open and easier-to-use platforms, support a wide range of AI models and applications, and create greater value for the industry as a whole.

Succeeding through quality, prioritizing security and trustworthiness

Quality is our lifeline – and our path to success. We are committed to providing customers with high-quality products and services and ensuring that our products are maintenance-free throughout their lifecycles. We actively share our 30-plus years of quality management experience with partners as part of our broader efforts to build an end-to-end quality management system. Together, we can promote quality growth across the industry.

Cyber security and privacy protection are the cornerstones of the digital and intelligent world. Huawei provides secure and trustworthy ICT infrastructure and smart devices. We have the right capabilities, embrace open collaboration, and are a responsible participant in the digital ecosystem, prioritizing our commitment to cyber security over all commercial interests. We have continued to build up our comprehensive cyber security governance system, while embedding cyber security requirements into all aspects of our business processes. We also work closely with our partners to provide secure and trustworthy products, solutions, and services that help customers enhance their network resilience. We actively contribute to cyber security standards and work closely with all stakeholders to build a secure and trustworthy cyberspace.

Advancing ecosystem development for a more dynamic industry

Ecosystems are fertile ground for innovation and growth. Only when every stakeholder in the ecosystem grows and succeeds can we have a truly flourishing community for all. We are redoubling efforts to open up our platform capabilities to ecosystem partners in domains like HarmonyOS, Kunpeng, Ascend, and cloud computing. Together, we will continue to provide developers with easy-to-use tools and products. We are also doing our part to help cultivate outstanding professionals for the ICT industry. These efforts include providing basic digital skill training to local communities, as well as holding various competitions and innovation-oriented events.

We value openness and collaboration and work hard to help others succeed. We focus on developing core ICT technologies and enhancing our strengths in complex hardware and software platforms, and we make these capabilities openly available to partners, developers, universities, and open source communities. Our ultimate purpose is to stimulate ecosystem-based innovation and drive industry development.

Powering sustainable development with technology

We believe that digital technology is an effective tool to fight climate change, protect the environment, and enable green development. Building on innovative ICT solutions, we provide customers with leading energy-efficient and eco-friendly products and solutions. We are also working with partners up and down the value chain to further advance energy conservation and emissions reduction, promote renewable energy, and contribute to a circular economy. We are exploring every viable approach to promote sustainable development.

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Message from the Rotating Chairwoman

Our devices are now back in the fast lane, and we are making historic breakthroughs in HarmonyOS ecosystem development. We continued to optimize our business mix for cloud computing, and our digital power kept forging ahead, placing quality before all else. Our intelligent automotive solutions turned a profit in 2024 for the first time.

Every inch of progress is hard-won. I would like to thank our customers around the world for your trust, giving us the drive to keep moving forward despite all manner of difficulties. Thanks to all of our suppliers and partners, as well as all developers, for sticking by our side to drive the industry forward and build a thriving ecosystem. Thanks to all consumers for your appreciation and support – meeting your needs is our north star. Thanks also to the entire Huawei team for all of your hard work. You are dauntless and united, committed to creating value for our customers. And finally, thanks to the families and loved ones of all our employees for their quiet support. They are our rocks, our source of strength.

I. A long-term approach, advancing with the times

AI has taken the world by storm. The extent of its impact isn't just the change it has brought, but the sheer speed of change. From groundbreaking work in ChatGPT and Sora, to leading examples of AI scientists winning Nobel Prizes – and to the phenomenal rise of DeepSeek – the world is witnessing faster breakthroughs in AI technologies and applications, alongside application-driven innovation.

Over the next decade, demand for AI computing power will continue to grow, creating huge opportunities for computing systems with broader, more holistic strengths. In the meantime, the next one or two years will define the competitive landscape for AI devices. AI will be a core capability of future devices and a defining factor for user experience. As technology improves and cost drops rapidly for AI inference, the penetration of AI devices will soar within a short period of time. New AI devices, intelligent connected vehicles, and AI agents will give rise to a massive amount of new connections. They will drive demand for higher

As the spring wind comes, it sweeps the snow from mountaintops.

As it goes, it fills the world with flowers.

In 2024, the entire team at Huawei banded together to tackle a wide range of external challenges, while further improving product quality, operations quality, and operational efficiency. We rounded off 2024 with CNY862.1 billion in revenue, and our performance was in line with forecast.

In the connectivity domain, we managed to overcome cyclical downturns in industry investment, maintaining solid business results. With 10 years of preparation in the computing domain, we were able to seize new opportunities in AI and achieve substantial growth.

uplink bandwidth, lower latency, and more intuitive human-machine interaction, paving the way for an incredible range of new and exciting applications.

AI is driving a great transformation in society, bringing unprecedented, long-term opportunities. And while we embrace opportunity, we reject *opportunism*. That is, we will focus on strengthening the core competitive edge of our products and keep bringing better products and services to our customers. We're not anxious, nor at a loss. We aren't rushing recklessly ahead. And we're not driven by short-term bubbles. We keep our feet firmly on the ground, building foundational technologies and striving to do better every step of the way.

II. Maintaining strategic focus and strengthening our core competitive edge in strategic domains

There's more and more uncertainty in the world these days, but one thing is certain: We must remain strong at all times. Moving forward, we will continue to cultivate fertile ground and strengthen our core competitive edge in strategic domains.

Over the next three years, despite an economic downturn, we will increase investment in strategic depth, particularly in building foundational technologies, and seek growth opportunities through differentiation.

Through our *Tianshui*, *Dishui*, and *Pacific Ocean* plans, we're positioning ourselves to seize strategic opportunities in AI and computing. With our *Tianshui* plan, we are working with partners to increase traffic on wireless networks. With our *Dishui* plan, we are working with partners on three major sources of data traffic for fixed networks – data centers, campuses, and homes. Together, we will raise the bar for connectivity and user experience. And with our *Pacific Ocean* plan, we will help our customers succeed by providing targeted data solutions that combine computing, storage, and networks.

Devices are our vanguard products, pushing the boundaries of user experience through nonstop innovation. Large-scale shipments of high-quality devices are driving the rapid development of the electronics industry in China.

For different businesses and industries, Huawei will take a forward-looking approach, build strategic depth, establish showcase projects to light the path forward for our customers, and transform small successes into big ones.

We will continue to leverage the strengths of our complete portfolio to meet the needs of different industries. Our technical experts and industry experts will dive deep into real-world industry scenarios, and different business domains will innovate together to solve the practical issues that customers face. This will become our primary operating model to seize new market opportunities. Through regular review and modeling of markets and projects, we will continue to improve our insight and adaptability. Over the next three years, we will continuously cultivate reserve teams, temper them in the market, and build a tide of highly capable teams to meet strategic challenges in the age of intelligence.

Action is the best vessel to cut through fog. Only with deep roots in technology can we branch out to change the future.

III. Cultivating fertile ground: Developers are the be-all and end-all of ecosystem development

A thriving ecosystem is the foundation for industry development. At Huawei, we actively promote openness, collaboration, and shared success, and continue to increase our strategic investment in ecosystem development to cultivate fertile ground. We are fully aware that developers are the be-all and end-all of ecosystem development. Whether an ecosystem is successful depends on if it's readily accessible and useful – and whether or not developers like using it. Our top goal for ecosystem development is to help developers and partners succeed, so providing them with ongoing, quality services will be the focus of our ecosystem investment in the foreseeable future.

The faintest trickle of water can grow into a river. And sparks, while small, can set the fields ablaze.

The Huawei Cloud, Kunpeng, Ascend, and HarmonyOS ecosystems are growing rapidly. By the end of 2024, the Kunpeng and Ascend ecosystems attracted 6.65 million developers and over 8,500 partners. There were more than 7.2 million HarmonyOS developers, and HarmonyOS was installed on over one billion devices. The HarmonyOS ecosystem is at a tipping point as it shifts from quantitative to qualitative change.

In 2025, we will continue to strengthen foundational ecosystems.

For HarmonyOS, we will continue to invest heavily in ecosystem development and spare no effort to support our partners. Together, we will provide consumers with better options, more possibilities, and a more inspired experience.

The computing ecosystem is another priority. With our open Ascend AI hardware and software platform, we will enable end-to-end AI innovation and support the optimal performance of more AI models and applications. For Kunpeng, we have launched end-to-end toolchains to help our partners achieve business success.

Only with fertile ground will flowers grow. Our cloud computing business will continue to cultivate fertile ground and improve application awareness for its various tech stacks and developer platform.

Massive trees grow from tiny seedlings. Every step counts.

An industry ecosystem is not just about bringing more partners on board; it's about shared, symbiotic growth. Let's work together to unveil a new vista of ecosystems where each member reinforces the next.

IV. Succeeding through quality and satisfying customers with high-quality products and services

Quality is not just a customer need. It's our responsibility. Huawei has raised quality management to a new, strategic height. We're dedicated to delivering high quality and ensuring that our products are maintenance-free throughout their lifecycles. We aim to succeed through quality. It's the foundation of our strategic depth, and we will continue to strengthen it. By continually enhancing product and service quality, we will stay on the path of high-quality development.

We believe in quality by design, and work to ensure the quality of our products and systems at the very source.

We also extend our quality management capabilities to the entire value chain. We embed quality requirements throughout the manufacturing process, and strictly control the quality of products leaving the factory floor.

Our approach is to make complex things simple and do the simple things repeatedly – and with heart.
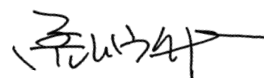
In 2025, we will continue to apply our "Succeed Through Quality" approach to all management systems and business activities. We are firmly committed to our quality goals and will keep honing quality as a competitive edge.

In torrential waters, we will hold fast to our anchors, calibrating the mast of our belief.

In the face of challenges, we have chosen the most difficult but correct path forward. We will continue to increase our investment in strategic depth, and bring better products and services to our customers around the world.

In the face of opportunities, we will advance with the times, working with our customers and partners across all industries to solve one problem after another.

Though stronger wings take time to temper, they'll bring us to the sky. Whether we face rising winds or quiet waters, we will continue moving forward. Long roads always have the best view.

Meng Wanzhou
Rotating Chairwoman

Business Highlights in 2024

☁ Driving Ubiquitous Connectivity

- We worked with carriers and partners around the world to continue driving 5G's business success. By the end of 2024, the total number of 5G users worldwide exceeded 2.1 billion. We worked with carriers to drive 5G development through business-network synergy, while engaging in continuous innovation to improve network experience and working to further unlock the value of mobile Internet. Infrastructure supported by 5G general and private networks was also used to overhaul production across more industries, improving productivity, security, and work environments.

- We worked with carriers worldwide to deploy 5.5G networks and tap into new scenarios of experience monetization such as livestreaming, gaming, subway coverage, and business travel. Together, we explored ways to create new value and ushered in the new era of 5.5G – an era where 10 gigabit interconnection is a reality. In the home broadband domain, we continued to explore and innovate, upgrading smart home services based on our 10 Gbps optical networks and restructuring bearer networks to improve user experience and unleash new business value.

- Our wireless rural network solution further simplified deployment and eliminated the need for mains power supply, base station poles, and site transmission in order to connect the unconnected. In one remote community in Brazil, for example, a network deployed with this solution brought online healthcare services and education to more than 3,000 residents, helping bridge the digital divide.

▦ Enabling Pervasive Intelligence

- In 2024, we continued advancing our All Intelligence Strategy by pursuing a series of innovations in the AI domain. These innovations support a vast range of AI models and applications across industries and are helping accelerate intelligence to reshape and upgrade industries.

The Kunpeng and Ascend ecosystems continued to grow steadily, with more than 8,500 partners and 6.65 million developers joining them to develop over 20,000 solutions. We also released CANN 8.0, our Ascend heterogeneous compute architecture, and launched our openMind application enablement kit to accelerate innovation and create thriving ecosystems.

- We launched Pangu Models 5.0, which have been fully upgraded to deliver competitive capabilities including full coverage of specifications, multiple modalities, and powerful reasoning. Pangu Models 5.0 include different sized models that can be adapted to different business scenarios and better integrate the digital and physical worlds. This helps more customers tackle the most challenging issues they face in specific industry scenarios. Pangu Models 5.0 have been used in more than 400 scenarios in over 30 industries including steel, manufacturing, and railways, helping them go intelligent while unleashing the power of digital and empowering innovation.

- In the intelligent automotive solution domain, we launched a series of solutions centered on intelligent driving. HUAWEI ADS and HarmonySpace Cockpit continued to bring more consumers a superior driving experience, and the HUAWEI Vehicle Control, HUAWEI Automotive Optics, and HUAWEI Vehicle Cloud businesses developed rapidly. Throughout the year, we shipped more than 23 million sets of intelligent automotive components. We also continued to work with more than 600 partners along the value chain to provide car OEMs with quality intelligent automotive components that offer premium experiences.

- We continued to leverage digital and intelligent technologies to help upgrade the new energy industry. In 2024, we launched the Smart String & Grid-Forming ESS Platform, which is able to effectively integrate large amounts of renewable energy into grids to significantly improve renewable energy consumption. We also used intelligent technologies to combine power generation, grids, loads, and storage, as we worked to build green, reliable, and resilient energy systems that support intelligent and green production in industries.

Delivering a Personalized Experience

- In 2024, the Consumer BG stayed consumer-centric to deliver an unparalleled intelligent experience to consumers across all scenarios, and created a high-end, fashion-forward, and technology-driven brand that appeals to consumers and has a human touch.

- We have continued innovating to deliver a compelling intelligent experience to consumers across five major scenarios: HarmonyOS Office, Fitness & Health, HarmonyOS Smart Home, HIMA-powered Smart Travel, and Entertainment.

- We officially launched HarmonyOS 5 to deliver users a high-quality experience with exquisite design, seamless interconnection, advanced intelligence, robust security, and smooth performance.

- We upgraded our HUAWEI Flagship Stores and HUAWEI Smart Life Stores around the world to provide more immersive and intelligent experiences to consumers across all scenarios. We also launched special services and organized community activities focused on accessibility to ensure everyone has equal access to technology and the digital world.

Building a Digital Platform

- Huawei Cloud is focused on reshaping industries with AI and cultivating the fertile ground needed to support industries' digital and intelligent transformation. By the end of 2024, Huawei Cloud had covered 33 geographical Regions and 96 availability zones (AZs), providing quality cloud services to customers in more than 170 countries and regions.

- Global demand for highly reliable and efficient AI computing power is growing exponentially, so Huawei Cloud launched CloudMatrix, an AI-native cloud infrastructure based on an architecture featuring system-level innovation, to provide customers with stable and reliable AI computing power. In addition, we fully upgraded our DataArts data governance pipeline and our full portfolio of database products to help enterprises simplify data use and improve model training efficiency. We also released the Mainframe-to-Cloud Solution that builds a new core system on the cloud to help enterprises like banks more agilely respond to market changes and keep pace with the intelligent era.

- Huawei Cloud remains committed to building an ecosystem that is created and fostered by all to benefit everyone in it. Our cloud is an ecosystem that aggregates industry applications, as well as a platform that empowers developers and partners around the world. By the end of 2024, Huawei Cloud had attracted more than 7.8 million developers and 45,000 partners from across the globe to jointly build an open global ecosystem that thrives on shared success.

Five-Year Financial Highlights

	2024		2023	2022	2021	2020
	(USD Million)	(CNY Million)	(CNY Million)			
Revenue	118,162	862,072	704,174	642,338	636,807	891,368
Operating profit	10,878	79,361	104,401	42,216	121,412	72,501
Operating margin	9.2%	9.2%	14.8%	6.6%	19.1%	8.1%
Net profit	8,577	62,574	86,950	35,562	113,718	64,649
Cash flow from operating activities	12,119	88,417	69,807	17,797	59,670	35,218
Cash and short-term investments	51,021	372,232	475,317	373,452	416,334	357,366
Working capital	43,749	319,178	421,662	344,938	376,923	299,062
Total assets	176,837	1,290,149	1,263,597	1,063,804	982,971	876,854
Total borrowings	36,305	264,871	308,414	197,144	175,100	141,811
Equity	74,649	544,619	507,568	437,076	414,652	330,408
Liability ratio	57.8%	57.8%	59.8%	58.9%	57.8%	62.3%

Note: These financial figures are from the consolidated financial statements prepared in accordance with IFRS Accounting Standards.
CNY amounts are converted into United States dollars ("USD") using the closing rate at the end of 2024 of USD1.00 = CNY7.2957.
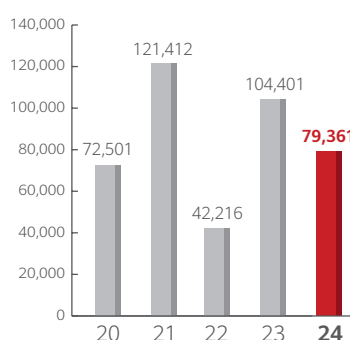
Revenue
CAGR: (1)%
CNY Million
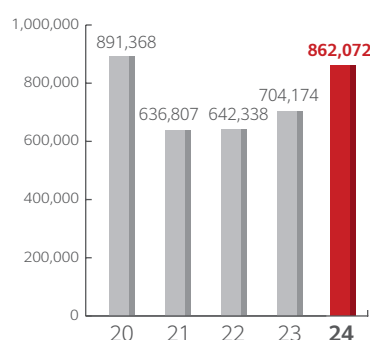
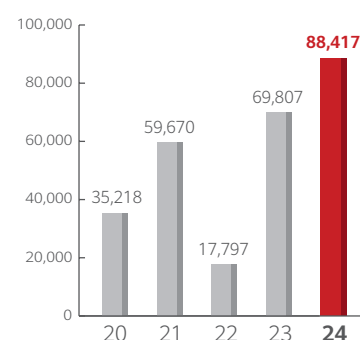## Operating profit
CAGR: 2%
CNY Million

Cash flow from operating activities
CAGR: 26%
CNY Million

Building solid digital and intelligent infrastructure for better business innovation and development

5G and gigabit networks are picking up steam worldwide, and 5.5G has entered the fast lane of commercial rollout. Network infrastructure is expanding its reach, going beyond connecting people to also connecting vehicles and things. Now with enhanced connectivity and sensing capabilities, advanced networks will lay the groundwork for the widespread adoption of AI by making truly ubiquitous connectivity and data aggregation possible.

Meanwhile, industries are going digital and intelligent faster than ever. And with rapid advancements in AI, networks will see more complex service scenarios, a far more diverse range of experience requirements, and rapid traffic growth from large AI models. As this transformation unfolds, digital and intelligent infrastructure will face an unprecedented set of new demands.

At Huawei, we are leveraging our leading expertise in communications network infrastructure to build competitive network solutions that provide experience assurance for all types of intelligent connections between people, things, industries, vehicles, and homes.

In particular, we are working closely with carriers worldwide to incubate innovative services for individuals, homes, and industries. Together, we will keep opening up network capabilities, exploring experience monetization, and bringing user experience to new heights. We are also joining forces with industry partners to dive deep into industry scenarios and promote faster adoption of 5G, optical networks, and Wi-Fi 7 in the industrial Internet, allowing these technologies to move from supporting systems into core production systems.

Huawei is also forging a solid computing backbone to offer more options for the world. Building on Kunpeng and Ascend, we are making the most of synergy across multiple domains, including computing, networks, storage, and cloud, to establish unique strengths in supernodes, clusters, and other forms of massive computing power.

We are also working to cultivate foundational software ecosystems based on the openEuler operating system, the openGauss database, the CANN AI computing enablement platform, and the MindSpore AI computing framework. This is part of our broader efforts to help our partners better innovate and develop AI applications. Together, we provide a full range of products to meet the diverse AI computing needs of different industry scenarios – from data centers to edge, and from training to inference.

Huawei Cloud has upgraded its entire stack for AI to provide fertile ground for industries to go digital and intelligent. We are building up AI-native cloud infrastructure and providing secure, stable, and quality cloud services such as AI-native databases, knowledge lakes, and software development toolkits. Through these efforts, we want to help our customers with the training and application of large AI models to support intelligent transformation. To date, more than 140 global carriers, 500 global finance organizations, 90% of Chinese Internet companies, and 95% of the top 30 carmakers in China have chosen Huawei Cloud.

Advancing our AI strategy to enable faster innovation and large-scale application

In the smart device domain, we aim to provide people with a compelling intelligent experience through better products and services. We are leading innovation in intelligent mobile imagery, maximizing synergy between cloud, networks, edge, devices, and chips. Our smart devices, powered by the intelligent features of HarmonyOS, are evolving into truly smart assistants for users. And with AI-enabled dynamic noise cancellation and voice enhancement features, Huawei devices can eliminate background and environmental noise for crystal-clear calls.

As for intelligent automotive solutions, we have launched HUAWEI ADS 3.0, which enables safer driving, more efficient travel, and a more comprehensive intelligent experience. In 2024, HUAWEI ADS-powered vehicles drove over 1.4 billion kilometers with intelligent driving – 30% of their total mileage. We are committed to open collaboration, working to provide more carmakers with intelligent automotive solutions.